

FIRE PREVENTION PLAN

434 London Road, Grays, RM20 4DH

Renu Recycling Limited

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Site Information & Key Contacts List

Site Address:	434 London Road, Grays, RM20 4DH		
Site Operator:	Renu Recycling Limited	National Grid Ref:	TQ 59582 77953

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Phil Mitchell	Director	07791 47 47 47	07791 47 47 47
<u>Thurrock Community Hospital</u> Long Lane, Grays, RM16 2PX	Local NHS Hospital (Main)	0300 123 0808	999
<u>Thurrock Health Centre</u> 55-57 High Street, Grays, RM17 6NB	Local Doctor Surgery (GP)	01375 898700	999
<u>Essex Police</u> Grays Police Station, Brooke Road, Grays, RM17 5BX	Local Police Non-Emergency	101	999 or 112
	Police Emergency	999 or 112	999 or 112
<u>Essex County Fire & Rescue Service</u> Station 50 Grays, Hogg Lane, Grays, Essex, RM17 5QS	Fire and Rescue Service (in Emergency Dial 999)	01376 576840	999
<u>Environment Agency</u>	Environmental Regulator	03708 506506	0800 807060
<u>Thurrock Council</u> Civic Offices, New Road, Grays, RM17 6SL	County Council General Enquiries	N/A	01375 372468, 999 or 111
<u>Anglian Water</u>	Mains water supplier	03457 145145	03457 145145
<u>Oaktree Environmental Ltd</u> Lime House, 2 Road 2, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	999 or 112 or 0800 807060

1 Introduction

1.1 Overview of site operations

1.1.1 This document considers the risks associated with fire on site at 434 London Road, Grays, RM20 4DH. The site will be operated as a household, commercial and industrial (HCI) waste transfer station with treatment.

1.2 Fire prevention objectives

1.2.1 This Fire Prevention Plan (FPP) has been designed to meet the following objectives:

- To minimise the likelihood of a fire happening;
- To aim for a fire to be extinguished within 4 hours;
- To minimise the spread of a fire within the site and to surrounding neighbouring sites; and,
- To minimise impact of fire on people, environment and businesses.

1.2.2 It is considered the main risk of fire at the site will arise from the HCI waste transfer station therefore this FPP will be largely based around this activity.

1.3 General

1.3.1 In addition to this document the site will be operated in accordance with an Environmental Management System (EMS). The main operations which take place at the site are as follows:

- Compacting (by loading shovel)
- Sorting (with loading shovel/excavator or by hand)
- Screening (by using appropriate mechanical screening plant and equipment)
- Separation (by using appropriate mechanical screening plant and equipment)
- Shredding (by using appropriate plant and equipment)
- Blending (by loading shovel and trommel)

1.3.2 The layout of the site is shown on Drawing No. LON/3071/03.

- 1.3.3 This FPP document will be kept in the site office and all operational staff must be aware and understand the contents of the Fire Prevention Plan (FPP) and what they must do during a fire.

1.4 Staffing and management

- 1.4.1 The table below details the staff structure of the site when operating at full capacity. Only the site manager, machine/plant operators and general operatives will be permitted to tackle fires on-site.

Table 1.1 - Staffing numbers and responsibilities

Position	Employees	Responsibilities
Managing director	1	Overall management of the business
Site Manager	1	Overseeing and co-ordinating activities which take place at the site
Yard/Machine Operatives	3	Traffic marshals, mobile plant drivers, weighbridge operators and general pickers/housekeeping
Office/Administration Staff	3	Office/administrative duties

1.5 Plant and equipment

- 1.5.1 The table below details the plant/equipment on site including that equipment specifically required for the implementation of this FPP. Only trained operators will be permitted to drive/operate the plant/equipment listed below.

Table 1.2 - Plant & Equipment

ITEM	NUMBER	FUNCTION
Waste handler	1	Loading/unloading/movement of waste
Loading shovel	1	Loading/unloading/movement of waste
Trommel	1	Mechanical separation of waste
Shredder	1	Processing and reducing material size to create product

- 1.5.2 **Note:** The plant/equipment on site will vary depending on the amount of waste accepted at the site.

1.6 **Hours of operation**

1.6.1 The site will be open during the following hours for the delivery and receipt of waste on site; including depositing, sorting, moving, storing and removing waste:

Monday to Friday	06:30 – 18:00
Saturday	06:30 – 11:30
Sundays, Bank/Public holidays	No operations (Open Good Friday)

1.6.2 In addition to the above hours of operations, the site will also operate the Shredder/Trommel internally during the following hours:

Monday to Friday	18:00 – 00:00
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1.7 **Correspondence with Fire and Rescue Service**

1.7.1 The Essex County Fire and Rescue Service (FRS) were contacted in the preparation of the FPP in order to obtain fire hydrant information which is discussed in Section 10 of this document.

1.7.2 Renu Recycling Limited will ensure all plans are suitable and seek a two-yearly response from the EA and FRS with regards to their FPP and associated operations on site. This regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.

1.8 **Sensitive receptors**

1.8.1 A Sensitive Receptors Plan (reference Drawing No. LON/3071/04) has been provided in Appendix I to highlight all main receptors within 1,000m of the site.

1.8.2 All protected habitats, groundwater source protection zones, boreholes, wells, springs supplying water for human consumption are shown (if applicable) on this plan.

- 1.8.3 To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration of a fire if it does occur. These measures will ensure the potential impact on any of the surrounding land is as minimal as practicably possible.
- 1.8.4 The primary sensitive receptors for any fire event would be the site itself and any site users.

Table 1.3 - Common fire sources and mitigation

Receptor	Receptor Type	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management
Numerous industrial and commercial uses surrounding the site.	Industrial / commercial premises	Fire causing the release of polluting materials to air (smoke, fumes and particulate matter)	Respiratory irritation, illness and nuisance to local population. Financial loss of businesses due to closure of adjacent roads/evacuation of premises.	Air transport of smoke.	High	Medium	Low	Procedures set out in this FPP. Toolbox talks and liaison meetings with receptors to review procedures in the event the site is subject of a fire.
Residential dwellings	Residential	As above	Respiratory irritation, illness and nuisance to local population.	Air transport of smoke.	Medium	Medium	Low	As above
Lion Pit (SSSI)	Protected sites – European sites and SSSIs	As above	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Air transport of smoke.	Medium	Medium	Low	Procedures set out in this FPP
River Thames	Surface water	Direct run off of fire water across site or to surface waters. Fire causing the release of polluting materials to air (smoke, fumes and particulate matter).	Loss of amenity, deterioration of water quality, killing of flora / fauna and other local wildlife	Air transport of smoke. Direct run off of fire water across site to surface waters.	Low	Medium	Low	Procedures set out in this FPP. The site has a sealed drainage system and all firewater would be contained on site

2 Managing common causes of fire

2.1 Details

2.1.1 The following list outlines common causes of fire and outlines specific examples of these sources, the associated risks and any mitigation measures necessary to manage them:

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Medium	<ul style="list-style-type: none"> • Appropriate site security infrastructure. • Vehicle checks on arrival to the site. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Staff training / toolbox talks. 	Near-zero
Plant or equipment	Spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	Medium	<ul style="list-style-type: none"> • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Fuel stored in a bunded area. • Daily checks of site surfacing and spill kits. • Staff training / toolbox talks. 	Near zero
Electrical appliances and cabling	Faulty appliances or damaged/ exposed electrical cables may spark as a result of a power surge	Medium	<ul style="list-style-type: none"> • Fixed wiring testing is carried out 5 years and portable appliances are PAT tested 12 months in accordance with Legislation. • Daily checks for dust and fluff on wiring / electrical appliances. 	Low
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully distinguished	Low	<ul style="list-style-type: none"> • No smoking or e-cigarettes allowed on site 	Near-zero
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Low	<ul style="list-style-type: none"> • Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. 	Low
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Medium	<ul style="list-style-type: none"> • No hot works will take place on site 	Low
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	Low	<ul style="list-style-type: none"> • There are no industrial heaters on site 	Low
Hot exhausts	Potential source of both primary and residual heat to stored wastes	High	<ul style="list-style-type: none"> • Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Out-of-hours storage of plant & equipment away from combustible or flammable wastes. • Daily checks for dust and fluff on plant/equipment before and use of equipment. 	Low

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Build-up of loose combustible waste, dust and fluff	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery and around exhausts	High	<ul style="list-style-type: none"> • Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Minimum daily checks for dust and fluff on plant/equipment before and use of equipment at the start/end of each working day. 	Low
Hot loads	Imported wastes which may contain materials which are above ambient temperature	High	<ul style="list-style-type: none"> • All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load. 	Low
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	Low	<ul style="list-style-type: none"> • There are no overhead power lines which traverse the site. 	Near-zero
Ignition sources	Activities or appliances which use a source of both primary and residual heat to treat waste or manufacturer material or plant/equipment	Medium	<ul style="list-style-type: none"> • No hot works take place. • There are no space heaters, furnaces, incinerators and sources of ignition will be kept 6 metres away from combustible and flammable waste. 	Low
Batteries within waste deposits	Ignition of stored wastes via batteries within imported wastes	High	<ul style="list-style-type: none"> • All loads are inspected in accordance with strict waste acceptance procedures including wastes received into satellite sites. • Quarantine area and rejected waste containers on site for quick isolation of load containing batteries. 	Medium
Other combustible non-waste materials on or near the site not mentioned above i.e. gas cylinders / LPG tanks	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	High	<ul style="list-style-type: none"> • All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load. 	Low
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	High	<ul style="list-style-type: none"> • All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load. 	Low
Leaks and spillages of oils and fuels	Fuels and combustible liquids leaking or trailing from site vehicles and ELVs can combust or cause accidents leading to combustion	High	<ul style="list-style-type: none"> • Spill kits available throughout the site. • Suitable and sealed drainage system. • No ELVs accepted into the site • Minimum daily checks for spillages around the site. • Staff training / toolbox talks. 	Low
“Tramp” metal	Metal could be hot from mechanical processing and interact with lighter waste causing a fire	High	<ul style="list-style-type: none"> • The treatment plant will have an overband magnet present which will remove any tramp metal from the waste. • There are no current proposals for any other mechanical treatment of scrap metal. 	Low

2.2 **Fuel/Oil Storage**

2.2.1 The location of fuel storage on site is shown on Drawing No. LON/3071/03 and procedures for fuel storage on site are as follows:

- Tanks are surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- All pipework and associated infrastructure will be enclosed within the bund.
- A lock will be fitted to the tank valve to prevent unauthorised operation.
- All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- No combustible waste will be stored within 6 metres of the tank.

2.2.2 The tank will be clearly marked showing the product within and also its capacity.

2.3 **Other hazardous (non-waste) material storage**

2.3.1 The site will not store gas cylinders, aerosols or combustible liquids and there will be no chemicals present on site. In the event the site needs to store any of these materials they will be stored in a suitable area and this FPP will be updated accordingly.

2.4 **Smoking policy**

2.4.1 Smoking is prohibited on the site. Any persons found smoking will be evicted from the premises.

2.5 **Mobile and fixed plant maintenance**

2.5.1 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

2.5.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

- Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
- Mobile plant is stored in the out-of-hours plant storage area as shown on Drawing No LON/3071/03 following cessation of activities and external separation distances of 6m are observed between plant and any combustible or flammable material.
- In the building, all plant will be powered-down and completely shut off prior to cessation of operations on any given day.
- Plant which is not in use for any extended period is stored at least 6 metres from combustible waste.
- All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
- Dust from processing/treatment operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be removed from the equipment and deposited into a container to await removal from site and site management informed.

2.6 **Site security**

- 2.6.1 The site has suitable perimeter security i.e. 2.4m palisade fencing and 4m steel sheeted cladding. The perimeter is considered suitable in preventing unauthorised access to the site. Details of the perimeter is shown on Drawing No. LON/3071/03.
- 2.6.2 During times when the site is closed, the following measure are in place to further reduce unauthorised access and the risk of fire
- a) **CCTV system** - The benefits from a remotely accessible 24-hour CCTV system with on and off-site supervision.
 - b) **Fire/Smoke Detection** – The site benefits from a fire/smoke detection system that will trigger an alarm system and alert the Fire Brigade.

- c) **Security Guard / Night watchman** – The site also benefits from a security guard/ night watchman/operative who works on the site during operational hours and will live on the site outside of the operational hours. The security carries out full patrols (every 2 - 3 hours) of the site out-of-hours and monitors the CCTV system. The security will remain on site until another employee arrives at 06:30. The security has contacts to site management and the director and will be trained in the requirements of this FPP. Further information regarding this is shown in Section 8 which details fire detection measures.

2.6.3 The site security will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary or daily inspections forms and repaired as soon as practically possible.

2.6.4 The security measures at the site are under constant daily review under the site's inspection regime. If unauthorised access becomes apparent as a problem at the site the security measures will be reviewed and improvements implemented.

2.7 **Electrical faults or damaged/exposed electrical cables**

2.7.1 All fixed wiring electrical cabling on site will be inspected daily by staff and serviced in accordance with Legislation (3/5 years) by fully qualified and certified electrical contractors to undertake both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:

- a) Fire detection & alarm system;
- b) Emergency lighting;
- c) Machinery checks / services (as per manufacturers' instructions).

2.7.2 In terms of portable appliance testing (PAT), this will be serviced annually by qualified and certified electrical contractors.

- 2.7.3 Daily inspections of cabling, etc. will be undertaken and the daily Fire Checklist can be used as a reference. Any potential ignition sources from suspected electrical faults will be isolated and the appointed electrical contractors will be contacted immediately to rectify the situation. Where possible, staff will immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.

3 Waste acceptance procedures

3.1 General

3.1.1 Strict waste acceptance procedures are in place at the site as shown below and the following details will be recorded for every load deposited at the site:

- a) The date and time of delivery.
- b) The name and address of the waste producer.
- c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
- d) How the waste is contained e.g. loose, container type.
- e) The carrier's name and address.
- f) Driver's name, signature and vehicle registration No.
- g) Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
- h) Additional handling details/notes made by the driver after inspection of the load.
- i) SIC code of the premises which produced the waste (where relevant).
- j) Waste hierarchy declaration.
- k) Information on previous treatment of the waste e.g. manual or mechanical.

3.1.2 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted. If the non-conforming waste is discovered following deposit, the waste will be loaded back onto the tipper vehicle and removed off site or and quarantined immediately to await safe removal. Where the waste cannot be identified, the EA will be contacted to agree a procedure to remove the waste from site.

3.2 **Combustible waste reception**

3.2.1 Combustible wastes will be tipped inside the transfer building within the mixed waste reception bay. There will two main types of material which are likely to be tipped at the site as shown below:

- **EWC code 17 09 04** - Mixed construction, demolition and excavation (CDE) waste; and,
- **EWC code 20 03 01** - Mixed municipal (MM) waste.

3.2.2 The above wastes will be tipped to the front of the pile and loaded from the rear of the pile into the treatment plant using mobile plant as shown on Drawing No. LON/3071/03.

3.2.3 Any waste brought into the site already separated will be stored in the relevant storage bays /skips located at the site as shown on Drawing No. LON/3071/03.

4 Managing waste piles

4.1 Stored combustible waste/materials

- 4.1.1 The main wastes accepted and stored on site which have been identified as having combustible potential are summarised in the table below which is also shown on Drawing No. LON/3071/03 in greater detail. The following table details the maximum pile sizes and duration for all wastes stored on site. Wastes considered non-combustible have not been included in this table.

Table 4.1 - Combustible waste storage table

Plan Ref	Description	Storage form/containment	Height & width of firewall (m)	Max Length / Width (m)	Operational storage height (m)	Out-of-hours storage height (m)	Approx. Area (m2)	Conversion factor used	Volume (m3)	Tonnes (approx)	Max Duration of storage (worst case scenario)
AREA 1	Mixed HIC & CDE waste overspill bay	Free standing / 3-sided concrete legio block storage bay	3.0 & 0.25	7.5	3	2	30	0.666	60	50 - 100	<72 hours
AREA 2	Mixed HIC & CDE waste reception / tipping area	Free standing / 3-sided concrete legio block storage bay	3.0 & 0.25	10	3	2	50	0.666	100	100 - 150	<12 hours
AREA 3A	<80mm fines trommel	Free standing	N/A	N/A	2	2	15	0.333	10	10	<12 hours
AREA 3B	<80mm fines storage bay	Free standing / 3-sided concrete panel storage bay	3.0 & 0.25	4	3	2	30	0.666	60	50 - 75	<12 hours
AREA 4	>80mm oversize fines	Free standing / 3-sided concrete panel storage bay	3.0 & 0.25	4	3	2	30	0.666	60	50 - 75	<12 hours
AREAS 5-7	Storage bays for hand sorted waste	Free standing / 3-sided concrete legio block storage bay	3.0 & 0.25	6	3	2	30	0.666	60	50 - 75	<72 hours
AREA 8	Sorted wood storage bay	Free standing / 3-sided concrete legio block storage bay	3.0 & 0.25	6	3	2	50	0.666	100	50 - 100	<1 week

4.1.2 The table below details the wastes stored on site and procedures to reduce the risk of combustion/ignition in line with the EA’s FPP guidance. Reference should also be made to Drawing No. LON/3071/03 for details and locations for each of the storage areas:

Table 4.2 - Combustible waste storage and monitoring table

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
<p>PILE 1</p> <p>Mixed HIC & CDE waste overspill bay</p>	<ul style="list-style-type: none"> • This area act as the overspill area from Pile 2 prior to being treated through the HCI treatment plant. • Any large visible recyclables will be hand-picked or extracted using the loading shovel / grab and placed into one of relevant storage areas at the site. • In the event of non-conforming or reactive waste discovered, the waste will be immediately consigned to the quarantine area using the above plant or loaded back onto the delivery vehicle and removed off site. • The waste will be tipped to the south of the stockpile at the front and then extracted from the north of the stockpile before being loaded into the plant. • Once loaded into the treatment plant, the waste is pushed from the south to ensure the first in first out principle applies and ensuring the stockpile is dynamic. • Stock rotation (unprocessed) - The maximum duration of waste stored here will be <72 hours; which would be from Friday to Monday. • The piles are stored against 0.25m thick concrete block fire wall. • The pile is visually monitored throughout the day by trained site operatives who will be trained via toolbox talks by site management in recognition of fire i.e. the early signs. • The site has an out of hour’s security who lives on site and will visually monitor the site throughout the night ensuring that the stockpile has 24-hour monitoring. • No further monitoring required other than visual by trained staff.
<p>PILE 2</p> <p>Mixed HIC & CDE reception / tipping area.</p>	<ul style="list-style-type: none"> • This area act as the main waste reception / tipping area prior to being treated through the HCI treatment plant. • Any large visible recyclables will be hand-picked or extracted using the loading shovel / grab and placed into one of relevant storage areas at the site. • In the event of non-conforming or reactive waste discovered, the waste will be immediately consigned to the quarantine area using the above plant or loaded back onto the delivery vehicle and removed off site. • The waste will be tipped to the south of the stockpile at the front and then extracted/loaded into the plant from the north of the stockpile. • Once loaded into the treatment plant, the waste is pushed from the south to ensure the first in first out principle applies and ensuring the stockpile is dynamic. • The MTP has a suitable throughput capacity ensuring the waste is not stored for longer than 12 hours i.e. clear out-of-hours. • The piles are stored against 0.25m thick concrete block fire wall.

	<ul style="list-style-type: none"> • The pile is visually monitored throughout the day by trained site operatives who will be trained via toolbox talks by site management in recognition of fire i.e. the early signs. • No further monitoring required other than visual by trained staff.
<p>PILES 3A <80mm fines trommel</p>	<ul style="list-style-type: none"> • This area will contain a pile of fines which has been produced by the trommel and discharged below. • This pile will be a temporary holding area which will undergo stringent visual monitoring to ensure the pile does not mix to other wastes or restrict access to other storage areas. • The fines will be transferred to Pile 3B for the appropriate storage. • The fines will not be stored for longer than 12 hours i.e. clear out-of-hours. • No further monitoring required other than visual by trained staff.
<p>PILE 3B & 4 <80mm fines & >80mm oversize fines storage</p>	<ul style="list-style-type: none"> • This area will contain a <80mm and >80mm fines which have been treated and produced by the trommel and transferred into the appropriate 3-sided concrete bay. • Once the area is full, the fines will be loaded onto an articulated bulker vehicle and removed from site. • The pile is visually monitored throughout the day by trained site operatives who will be trained via toolbox talks by site management in recognition of fire i.e. the early signs. • The fines will not be stored for longer than 12 hours i.e. clear out-of-hours. • No further monitoring required other than visual by trained staff.
<p>PILES 5 - 7 Recycled / sorted waste bays from picking line process</p>	<ul style="list-style-type: none"> • These bays will be used for holding sorted wastes arising from the HCl treatment plant which staff have hand-picked/sorted and transferred from the reception area and deposited into a 3-sided concrete bay below. • It is considered that the waste in these bays will not be stored for longer than <72 hours as a worst-case scenario in the event public holidays, breakdowns or plant malfunctions and unavoidable holding is required. • The bays comprise three-sided concrete walls and the pile height can be monitored by staff during operational hours ensuring that a suitable freeboard is present. • These piles can also be visually monitored throughout the day by trained site operatives who will be trained via toolbox talks by site management in recognition of fire i.e. the early signs. • The site has an out of hour's security who lives on site and will visually monitor the site throughout the night ensuring that the stockpile has 24-hour monitoring. • The bays are internal to prevent exposure from sunlight. • No further monitoring required other than visual by trained staff.

<p>PILE 8</p> <p>Sorted wood storage</p>	<ul style="list-style-type: none">• This area is used for holding shredded/sorted wood.• It is considered that the waste not be stored for longer than 1 week as a worst-case scenario in the event public holidays, breakdowns or plant malfunctions and unavoidable holding is required.• This pile can also be visually monitored throughout the day by trained site operatives who will be trained via toolbox talks by site management in recognition of fire i.e. the early signs.• The site will have access to hose points which can be used to dampen down stockpiles throughout operational hours which will prevent the waste from heating during periods of warm weather.• The site has an out of hour's security who lives on site and will visually monitor the site throughout the night ensuring that the stockpile has 24-hour monitoring.• No further monitoring required other than visual by trained staff.
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4.2 **Waste stored in containers**

- 4.2.1 There will be skips present at the site but these will be empty. Incoming skips will be tipped into the waste reception area (**Pile 1 and 2**).

4.3 **Stock rotation and seasonal variations**

- 4.3.1 In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can incoming waste and send stored waste to an alternative site. The operator can search for additional site's using EAs public register for alternative sites who could take this material, or they would contact the destination sites where waste from the site will be sent.
- 4.3.2 The list of outlets has not been provided due to confidentiality purposes however the contracts will range from weekly – monthly depending on seasonal variations and demand for material.

4.4 **External heating**

- 4.4.1 It is considered the only wastes which would be at risk of external heating are situated in **AREA 8** as all other wastes are either within in a building, shaded from buildings/plant or are non-combustible.
- 4.4.2 The waste in the above will not be stored for longer than 1 week and removed 2-3 times throughout the day. In the event of a drought period or weather conditions exceeding 75⁰C, which the operator would know in advance via the Met Office, the waste will be doused with water prior to cessation of activities and covered with tarpaulin to prevent exposure from direct sunlight.

5 Prevent fire spreading

5.1 Waste storage general / fire breaks

5.1.1 Combustible waste will be stored as per Drawing No. LON/3071/03 and within the limit of EA's FPP guidance. All stockpiles of stored wastes are detailed in the Storage Area Details table on Drawing No. LON/3071/03 in respect of their description, maximum length and width, area, volume and storage duration.

5.1.2 The operator will store waste materials in their largest form and minimise pile sizes wherever possible.

5.1.3 Fire breaks are clearly shown on Drawing No. LON/3071/03.

5.1.4 The aim of the site is to process the incoming material and arrange for its export off site as soon as practicably possible following sorting to minimise over-stocking which in-turn minimises the risk of overheating and spontaneous combustion which is clearly detailed throughout Table 4.2.

5.1.5 The site will ensure 'first in, first out' principle is met.

5.1.6 **Storage on flat ground:** Site surfaces where wastes are stored are flat and, therefore, reduce the risk of falling materials which would accelerate the spread of fire.

5.2 Fire walls and bays

5.2.1 There are different sets of firewalls used at the which:

- Reduce the need for 6m separation distances between different waste piles; and
- Reduce the need to provide a 6m separation from the waste and permit or site boundary.

5.2.2 The table overleaf details the type of wall and demonstrates their properties to:

- a) resist fire (both radiative heat and flaming); and,
- b) have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

Table 5.1 – Fire wall details and specifications

Firewall type	Width	Site location / use	Specification
Concrete panel wall	0.25m	Several Areas	Class A under EN 13501-1:2007+1:2009: Fire classification of construction products and building elements. Classification using test data from reaction to fire tests: concrete structures over 100mm will have a fire resistance of 1200°C for 4 hours.
Interlocking concrete legio block	0.25m	Several Areas	Manufactured by JP concrete and to British (BS) & Eurocode (EN) standards. Joints are sealed providing 120-minute fire resistance.

- 5.2.3 The above walls are checked throughout the day by staff via daily inspections if any gaps or damage to the walls are present which could compromise their integrity, the walls will be repaired and sealed as soon as practically possible.
- 5.2.4 All waste stored in against walls will have a suitable freeboard but it is not possible to scientifically calculate the flame height as each waste pile is different and could contain a number of different sizes/grades of waste leading to a lesser or greater flame height.

6 Site inspection programme

6.1 Daily checks

6.1.1 Site management are responsible for carrying out daily site walks for checking drainage systems, security measures and waste storage areas. Site management can reference the fire checklist shown in Appendix II but may use internal check sheets. The site also carries out weekly inspections for firefighting equipment to ensure they are fit for purpose.

6.1.2 Carrying out the above checks daily will keep the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in the table on Drawing No. LON/3071/03.

6.2 Staff training

6.2.1 Operational staff will be subject to site inductions which includes basic fire emergency procedures by site management. If necessary, a third-party fire consultant will be contacted to carry out additional training.

6.2.2 A full test (drill) of the procedures in this document will be carried out every 12 months to test that the plan works. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The fire checklist may also be used during the drill.

6.3 Toolbox talks

6.3.1 All operational and out-of-hours staff including the out-of-hours security guard will receive fire awareness training / tool box talks by trained site management to detect early signs of fire and to minimise the chance of a fire breaking out; which will also include the procedures shown in this FPP.

7 Quarantine area

- 7.1.1 In accordance with Section 12 of the FPP guidance a designated quarantine area has been provided as shown on Drawing No. LON/3071/03. The quarantine area will be kept clear at all times and allows for a 6-metre buffer from the site perimeter and other stored waste or other combustible materials on site.
- 7.1.2 The largest pile on site is considered to be **Pile 2 and Pile 8** comprising the waste reception area and if this area was full would have an approximate area of 50m² and a volume of 100m³. The quarantine area proposed has an area of 50m² and a volume capacity of approx. 50m³ which is 50% of the stockpile.
- 7.1.3 The quarantine area will be clearly marked out using paint to ensure staff are aware of its location to ensure nothing is stored here throughout the day or out-of-hours.
- 7.1.4 In the event of a fire, the quarantine area will be used either to isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition; or, to remove any other wastes stored near which could be affected by the fire spreading. It is envisaged a fire would be extinguished in situ so in assuming the fire has been extinguished, the 'burnt out' waste would be removed to the quarantine area where it can be continually doused down and monitored prior to export off site to suitably permitted site.

8 Fire detection procedure

8.1 Automated/out-of-hours detection

8.1.1 There are no proposals to install an automated detection system on site as it is considered visual monitoring every 2-3 hours by the security guard/operative is ample given the amount and duration in which the waste stored. There would be one security guard/operative monitoring the site so this will prevent unauthorised access and allow all waste on site be monitored.

8.1.2 In the event of a fire or signs of fire from the site, the security guard can make an immediate call with the site manager or TCM who can call other staff and be at the site within 10 minutes to commence fire-fighting procedures.

8.1.3 It is considered the FRS would be available within 10-15 minutes to assist the out-of-hours contact in suppressing and controlling the fire using their expertise and appliances.

8.2 Manual detection/on site detection

8.2.1 If a fire is detected or suspected by a member of staff during operational hours, the person will sound the fire alarm and report site/operations manager or TCM or can then then conduct the following procedure:

- a) Raise the fire alarm using radios to notify site management and other operational staff (if not already done by another staff member).
- b) Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.
- c) Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers.
- d) If viable and safe, instruct necessary site staff to commence extinguishment.

9 Fire response procedures

9.1 Response procedure

9.1.1 Further to the detection measures in Section 8, the following procedures would apply in the event of a fire at the site:

- a) Call the Fire Response Service (FRS) immediately using 999.
- b) Call the EA's Emergency Contact Number.
- c) A suitably trained employee will initiate fire water containment measures to close the site's surface water drainage system (see Section 11).
- d) Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
- e) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
- f) Ensure access routes are clear.
- g) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
- h) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive.
- i) Site management will identify themselves to the FRS as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively.
- j) Implement pollution control measures if safe to do so (see Section 12).

9.1.2 In the event of site management being absent from site, the operator will ensure the TCM or a suitably competent deputy is available during operating hours to take command of an incident should one occur.

9.2 **Staff/Visitor Response Procedure**

9.2.1 The following quick actions will be undertaken by site operatives where a fire is detected or suspected on site:

- a) Don't panic
- b) Inform the site manager or technically competent manager immediately
- c) Raise the alarm (if not done so already)
- d) Do not try to tackle the fire yourself unless you are trained in doing so and you are sure of the nature of the fire
- e) Leave the site using the nearest exit as quickly and as orderly as possible
- f) Assemble at the specified fire assembly point
- g) The site manager or delegated operative will be in charge of calling the emergency services on "999" and ensuring that all persons who were working in the building are assembled safely
- h) Do not return to the site until you have been given the 'all clear' by the emergency services and/or site management / responsible person.

9.3 **Evacuation of Staff (and Drill Procedure)**

9.3.1 An evacuation plan has been formulated for the site and all operational staff will be made aware of the actions through site inductions, refresher training, toolbox talks etc.). The fast and effective evacuation of staff to the fire assembly point will increase safety on site and limit the impact of a fire on any persons on site.

9.3.2 Fire drills will take place every 12 months and 1 month after site operations commence to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures.

9.3.3 The drill will be a simulation of an emergency with the location of a mock fire notified to staff in order to test the response speed in deploying pollution control equipment i.e. including drain mats/plugs and ensure all firefighting equipment is sound. The fire check

form may also be completed and a detailed report of the outcome of the exercise will be prepared to assist with staff training.

9.4 **Access for emergency services**

9.4.1 The site has direct access for the emergency services. The nearest fire station is 4 miles to the northeast of the site and it is anticipated the response time is <15 minutes.

9.4.2 The width of the surrounding roads and gateway exceeds the minimum required by the FRS which is 3.7m. Site management will also ensure the 3.7m access routes are maintained throughout the working day and before cessation of works during site inspections.

9.4.3 Access routes for emergency services around the site are clearly shown on Drawing No. LON/3071/03.

9.5 **Notifying nearby properties**

9.5.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office.

9.5.2 As it isn't feasible for a contact number to be provided for every individual residential receptors and individual business within 1km, the most sensitive receptors and closest business receptors have been included within the table overleaf.

Table 9.1 - Receptor Contact Information

CONTACT	DESCRIPTION	CONTACT NUMBER
Thurrock Council	Contact for residential/small business receptors	01375 372468
A&L Autos and Upholstery	Contact for business receptor	01375 430 066
EC Group	Contact for business receptor	01375 484555
Harris Primary Academy	Contact for School receptor	020 3772 4588
Harris Academy Chafford Hundred	Contact for School receptor	01375 484580
Stifford Primary School	Contact for School receptor	01375 373601
Belmont Castle Academy	Contact for School receptor	01375 373601

- 9.5.3 The above receptors will be contacted by a co-ordinated approach where staff from Renu Recycling Limited will contact them by phone and/or email.
- 9.5.4 Once Emergency Services arrive on site i.e. FRS, Police, the lead authority (usually the Police) will co-ordinate a systematic approach to ensure all the relevant sensitive receptors within 1,000m are notified. This will involve via telephone calls, personal visits (knocking on doors). In addition to this, the Emergency Services would also publicise the fire on their Social Media outlets and contact local news websites, radios who can also provide updates on the incident.
- 9.5.5 The police with the assistance of ECSS and any other attending authority will ensure all relevant properties are informed of the fire event and given clear instructions of the actions they need to take.

10 Suppressing fires & water supply

10.1 General

10.1.1 Section 16 of the EA's FPP mentions the site should have enough water available for firefighting to take place and to manage a worst-case scenario. A worst-case scenario would be the largest waste pile catching fire.

10.1.2 The largest combustible waste pile on site is **Pile 2 or Pile 8** equating to 100m^3 and to extinguish within 3 hours would which would require approximately 120,060 litres (120m^3) of water requiring a flow of approximately 667 litres per minute based on the calculation provided in the table below.

Table 10.1 - Water supply calculations

Maximum pile volume in m^3	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on/off site in litres
100	$100 \times 6.67 = 667$	667×180	120,060 (120m^3)

10.2 External suppression - fire hydrants

10.2.1 The Essex County Fire & Rescue Service have confirmed that there is a fire hydrant located on the road outside of the premises. The hydrant is shown below and on Drawing No. LON/3071/04.

10.2.2 Following discussions with Essex FRS, they have confirmed:

- *There is one hydrant (50/610) located at the entrance to the road where the site is. We do not carry out any flow or pressure tests on the statutory hydrants we maintain. I can confirm though that the hydrant was last tested on its 3 yearly cycle on December 2017 and was satisfactory for firefighting purposes. This hydrant is due to be tested again in December 2020.*



10.3 On-site suppression measures

- 10.3.1 The initial firefighting within the building will be undertaken using the water suppression system (connected to mains).
- 10.3.2 Water will also be sourced from hydrants as described in Section 10.2 above.
- 10.3.3 There are a number of fire extinguishers located around the site which can be deployed in the event of an incident to tackle a small fire or for fire suppression in the intervening time between discovery of the fire and the arrival of the FRS.
- 10.3.4 There are mains water points and standard 20m - 50m powered fire hoses can be connected to these points for further suppression. The hoses will have a flow of approximately 10-15 l/m depending on the pressure at the time.
- 10.3.5 The firefighting equipment and water points would not extinguish a worst-case scenario fire but they would be used stop smaller fires and aid in reducing the impact of a large fire whilst awaiting the arrival of the FRS.

10.4 **Additional suppression measures**

10.4.1 The site also has access to non-combustible waste comprising of inert soil, stone material which could also be used as a suppression measure by smothering the fire and reducing the oxygen. Should this technique be used, the site would ensure the potentially hazardous material is disposed of a suitably permitted site.

10.5 **Automated suppression / alternative measure**

10.5.1 The site will store small amounts of waste inside a transfer building however it is considered that there is no need for an automated suppression system due to the following:

- The site is able to bring in additional plant, bowsers to help move waste, remove fire water and aid in fighting fires.
- The waste is not stored for longer than <1 week which is nearly 3 months less than the guidance permits.
- There will be visual monitoring of all combustible waste piles every 2-3 hours by a security guard including wastes stored in the building.
- The building has direct access into the bays by mobile plant to remove burning material or material at risk of catching fire.

11 Managing fire water

11.1 Drainage

11.1.1 The drainage for the site is clearly shown on Drawing No. LON/3071/03 and if there is any deviation from the current drainage arrangement, an amended FPP will be submitted for approval by the EA.

11.2 Containment of fire water

11.2.1 As detailed in Section 10.1.2, the largest pile would require containment for 120,060 litres (120m³) of water in accordance with the FPP guidance.

Table 11.1 - Firewater Containment Calculation (Internal)

Volume of Water (m ³)	Containment Area (m ²) (Inside Building)	Containment Required	Total Containment On Site
120	825	120 / 825 = 0.14	0.15

11.2.2 The fire water used for the internal stockpiles (**Piles 1 – 7**) will be contained within the building.

Table 11.2 - Firewater Containment Calculation (Whole Site)

Volume of Water (m ³)	Containment Area (m ²) (Inside Building)	Containment Required	Total Containment On Site
120	1823	120 / 1823 = 0.06	0.15

11.2.3 Surface water is engineered to fall naturally into the drain. In the event of a fire the drain will be plugged and all water would pool/pond in the yard. A fire water boom would be deployed at the site access in the event of a fire to contain fire water runoff.

11.2.4 Using the above containment techniques, the fire water from internal stockpiles would pool inside the building; whilst the fire water from external stockpiles would pool and be contained in the external yard.

11.3 **Fire water boom deployment procedure**

- 11.3.1 The fire water boom will be located within the site office and would be deployed in the event of a fire at the site access to contain any fire water runoff. The booms have a 160mm diameter tube each side and using a standard water main i.e. the hose from the site could be filled and provide containment in <5 minutes.
- 11.3.2 A key member of senior staff will be responsible for arranging the deployment of the fire water booms and will be trained in this procedure.
- 11.3.3 Upon confirmation that a significant volume of water is likely to be required for extinguishing a fire on site, the following deployment procedure for the poly booms will be observed:
- a) Take the boom roll from the site office;
 - b) Emplace the boom as shown on Drawing No. LON/3071/03 by rolling the necessary length;
 - c) Use supplied cable ties (also available in the site office) to seal the front end of the boom;
 - d) Using a sharp knife, cut the laid-out section from the remaining roll;
 - e) Using the Hose Reel, begin filling the first of the two chambers of the boom being sure to elevate the 'fill' end to prevent the water leaving the tube;
 - f) Once the first chamber is filled, repeat in second chamber ensuring the 'fill' end is kept elevated to prevent escape of water;
 - g) When both chambers are full the 'fill' end should be sealed using a cable tie thus completing deployment.
 - h) Typically, one side of the roll would be filled which has a 160mm diameter,
- 11.3.4 The above process should be completed as above for all lengths of boom shown on Drawing No. LON/3071/03.
- 11.3.5 Once deployed, all booms should be regularly checked during a fire event to ensure that they are providing effective containment and that there are no breaches.

Secondary/additional lengths of boom can be deployed in addition to the compulsory locations using the same procedure (as above) if deemed necessary.

11.4 Removal of fire water

11.4.1 Upon successfully extinguishing a fire all standing fire water would be pumped using a hired-in vacuum tanker and deposited to a suitably permitted site for treatment.

11.4.2 The operator would also contact the water company to see if the fire water could be discharged into the foul system; this would obviously depend on the type of fire and the contamination of the fire water.

12 After an incident

12.1 Contingency Planning

12.1.1 In the event of a fire the site will cease accepting waste. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the EA's public register.

12.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined in the section below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

12.2 Site decontamination

12.2.1 Surface water on site will be cleared using the following method:

- a) Using a bowser, all standing fire water should be sucked up and taken off site or stored in a tank/bowser prior to removal off site.
- b) Using all available resources, manually clean out surface water gullies removing the debris to the pile of fire damaged waste for removal to landfill or permitted site.
- c) Using a road sweeper, sweep the yard (damp as required using the bowser) until all ash and clinker has been removed.
- d) All debris has now been isolated and all contaminated water holding areas have been cleaned and emptied.
- e) Wash the yard down in entirety using clean water or allow a reasonably heavy rain shower to wash the yard down.
- f) It is at this stage that site management should decide whether it is appropriate to remove the surface water protection measures, or repeat areas of the clean-up.

- 12.2.2 If the clean-up operation has been deemed complete, the surface water protection measures can now be removed. This will be achieved using the following methods:
- a) Remove any temporary bungs/valves
 - b) Surface water discharge from the site is now possible the next time it rains to discharge to foul sewer. Ensure that surface water checks are made during the next rainfall event to validate that clean-up has been undertaken satisfactorily. Record all findings and actions in the site diary.
 - c) Account for all consumables that have been used in the fire and re-order / replace immediately.
 - d) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
 - e) Check monthly that items are still present and correct and still serviceable for use in an emergency.
- 12.2.3 The operator will liaise with the EA throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when the site can begin accepting waste again onto site.
- 12.2.4 Due to the nature of the site's customers, there are no regular waste contracts which need to be dealt with if the site is closed for a period of time due to any incidents. Most waste is accepted on a one-off basis from members of the public or local businesses. In the event that the site is not able to receive scrap metal or ELVs the customer will be offered alternative authorised facilities where they can take their metal or ELV.

12.3 **Post fire site recovery**

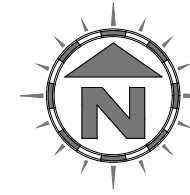
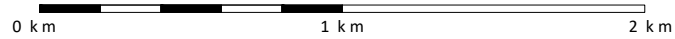
12.3.1 If a recovery procedure is required, the operator would instigate the following;

- a) Remove damaged material to a permitted facility that is able to deal with it legally.
- b) Ask engineers to carry out repairs on any plant, vehicles and/or infrastructure.
- c) Assist the FRS with the fire investigation and where necessary engage the advice from a professional fire consultant.
- d) Review the FPP and EMS procedures and improve upon where found deficient.
- e) Review training requirements for staff.
- f) Assess whether further preventative measure could be implemented.
- g) Ensure all fire equipment, where used, is replenished.
- h) Remove fire water to a permitted facility for disposal.

Appendix I

Drawings

Scale Bar (1:25,000)




NOTES

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REVISION HISTORY

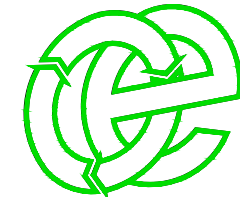
Rev	Date	Init:	Description:
-	20.5.20	CP	Initial Drawing

KEY:

 Permit boundary



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
SITE LOCATION MAP

CLIENT
Renu Recycling Ltd

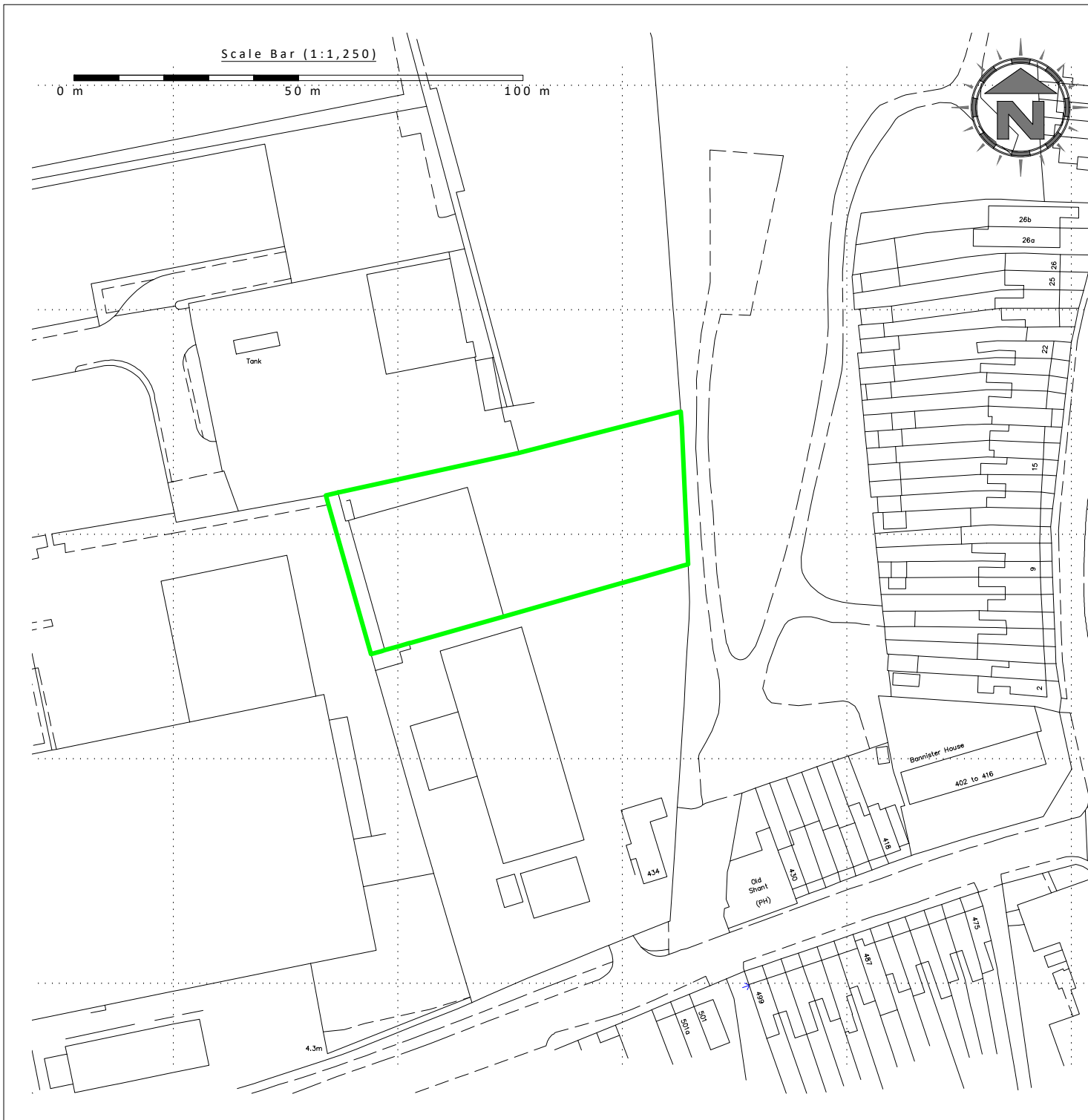
PROJECT/SITE
434 London Road, Grays, London RM20 4DH

SCALE @ A4	JOB NO	CLIENT NO
1:25,000	001	3071

DRAWING NUMBER	REV	STATUS
LON/3071/01	-	Issued

DRAWN	CHECKED	DATE
CP	--	20.05.20

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk




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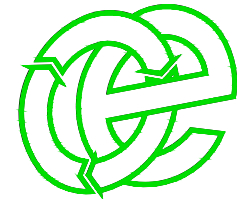
REVISION HISTORY

Rev	Date	Init:	Description:
-	12.5.20	CP	Initial Drawing

KEY:

 Permit boundary

Oaktree Environmental Ltd
 Waste, Planning and Environmental Consultants



DRAWING TITLE
 PERMIT BOUNDARY PLAN

CLIENT
 Renu Recycling Ltd

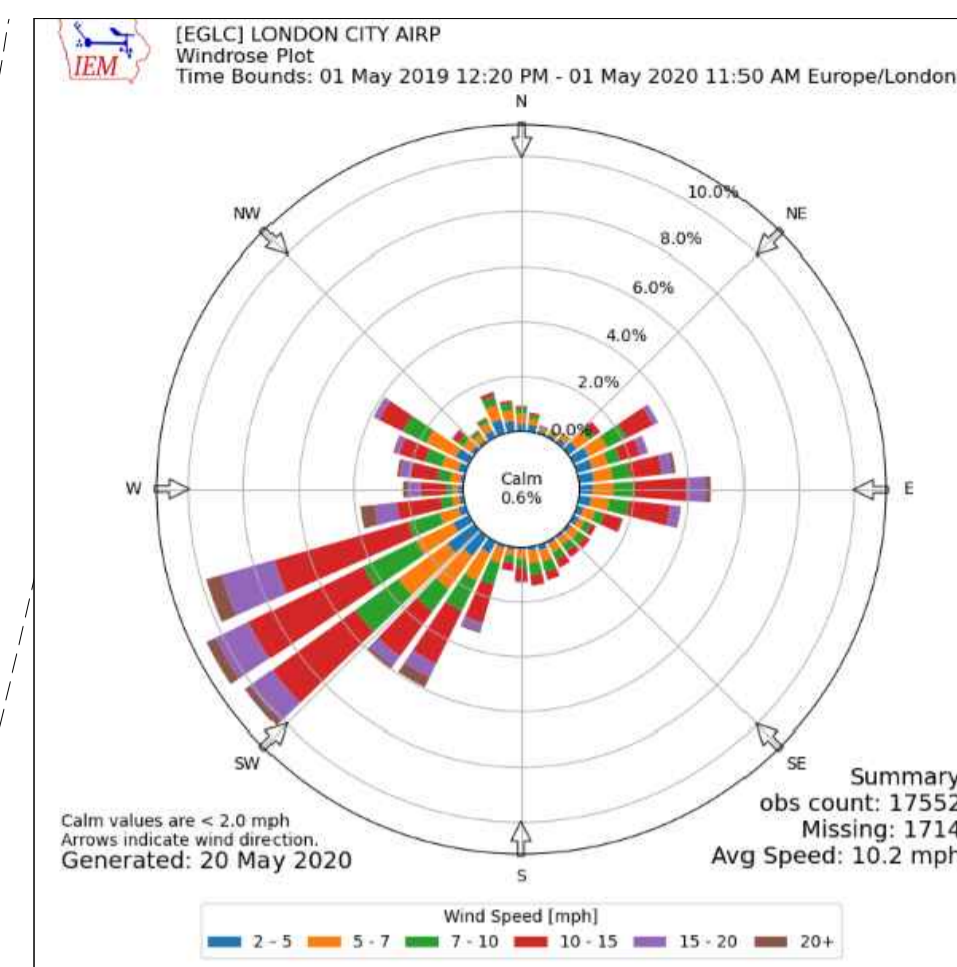
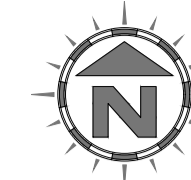
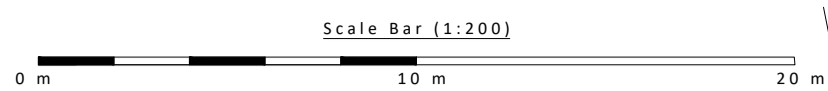
PROJECT/SITE
 434 London Road, Grays, London RM20 4DH

SCALE @ A4	JOB NO	CLIENT NO
1:1,250	001	3071

DRAWING NUMBER	REV	STATUS
LON/3071/02	-	Issued

DRAWN	CHECKED	DATE
CP	--	12.05.20

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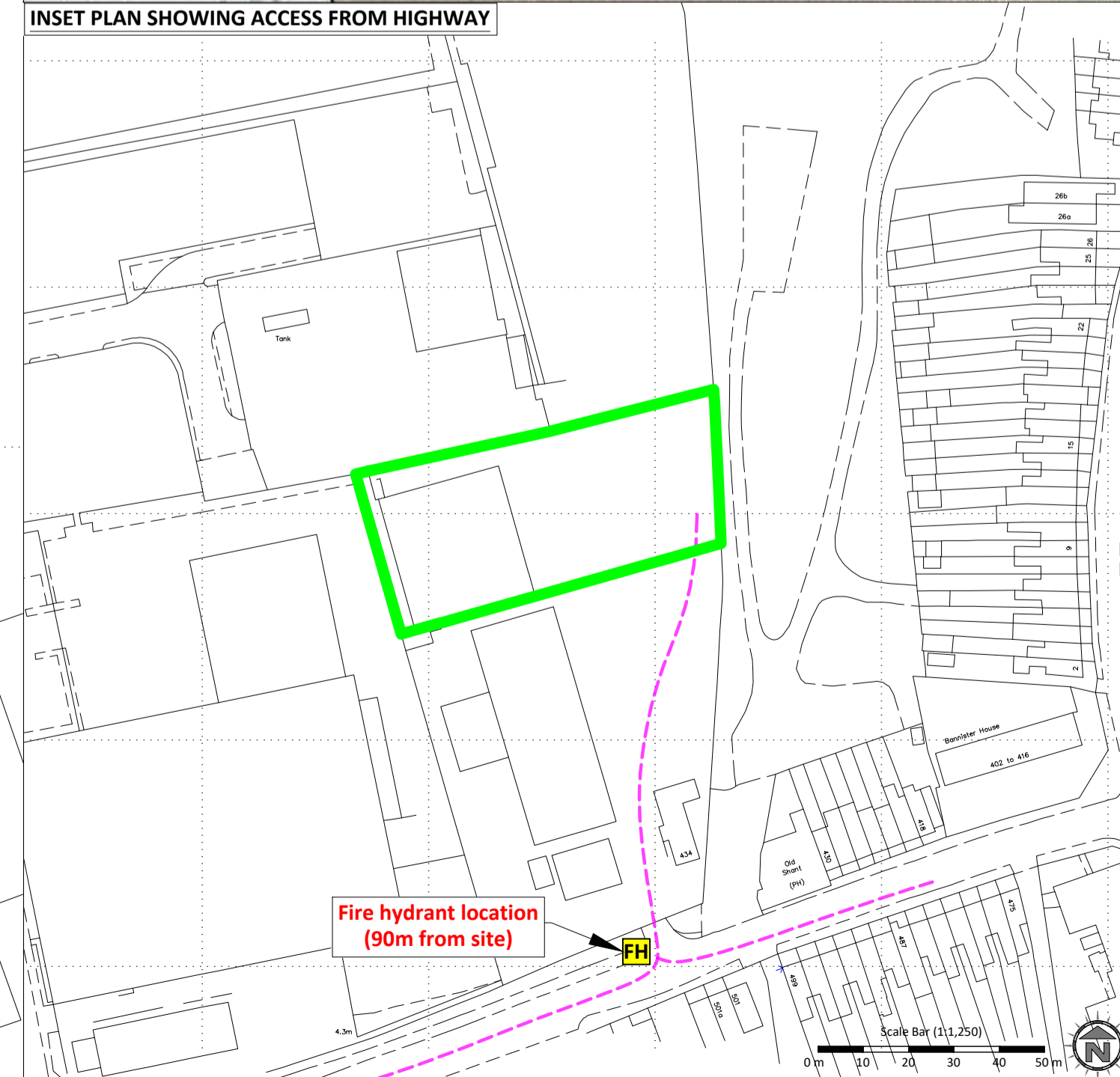
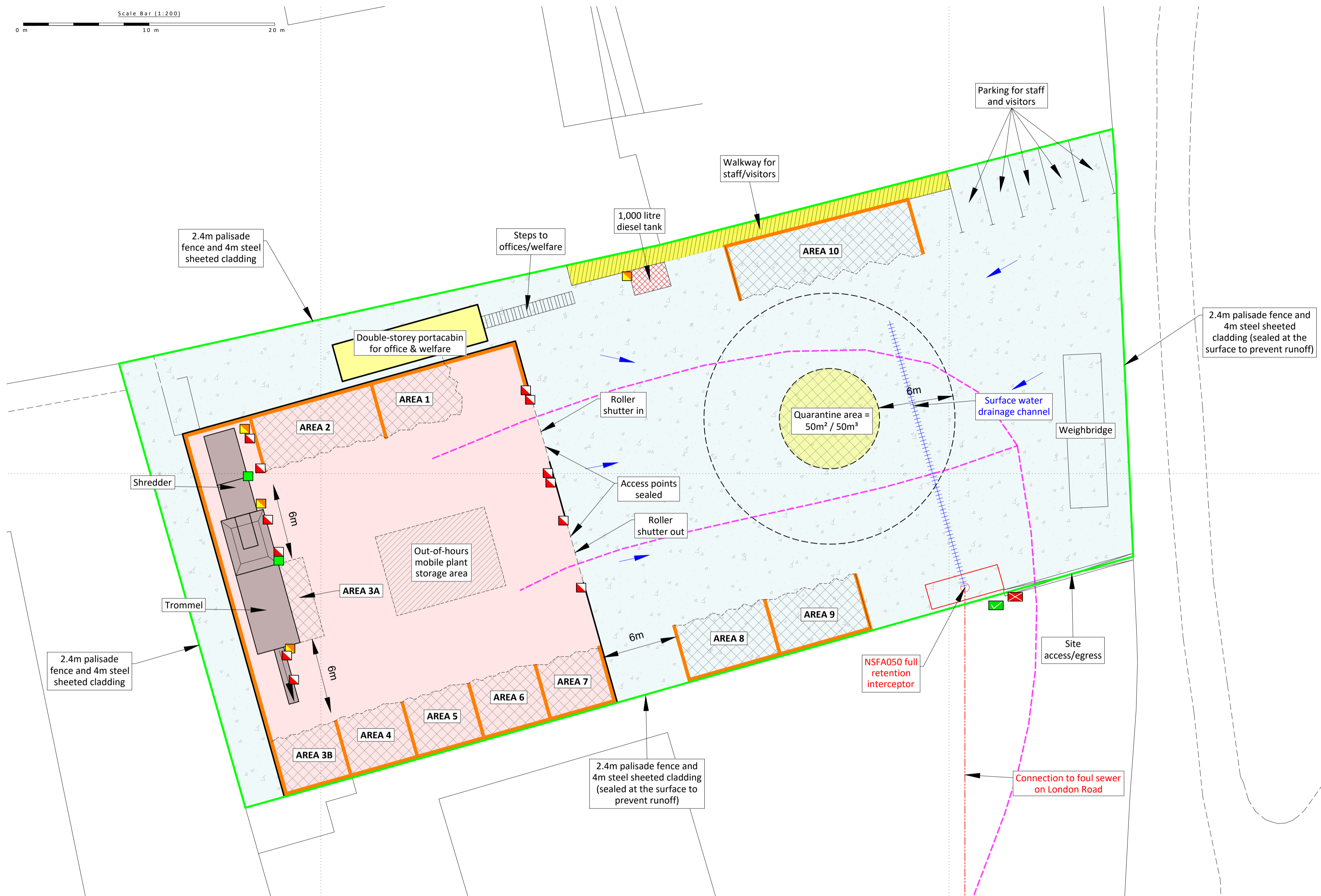


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REVISION HISTORY

Rev	Date	Init	Description
-	21.5.20	CP	First draft issued to client
A	10.6.20	CP	Application copy

- Key:**
- Permit boundary
 - Waste storage areas
 - Non-waste storage areas
 - Waste sorting buildings
 - Concrete areas
 - Other buildings (offices, etc.)
 - 0.25M thick concrete fire walls / storage bays
 - Spill kit
 - Fire fighting equipment (extinguishers, etc.)
 - Access routes for emergency vehicles and site plant manoeuvring areas
 - Surface water fall direction
 - Underground foul drainage and direction
 - Surface manhole for inspections
 - Plant shut off
 - Fire assembly point
 - Emergency services box
 - Fire hydrants

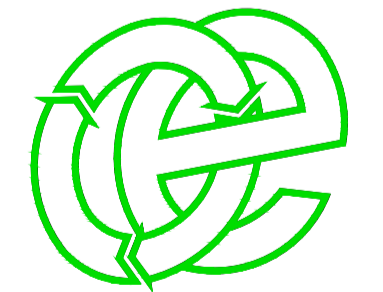


Storage Area Details Table

Plan Ref	Description	Storage form/ containment	Height & width of firewall (m)	Max Length / Width (m)	Operational storage height (m)	Out-of-hours storage height (m)	Approx. Area (m2)	Conversion factor used	Volume (m3)	Tonnes (approx)	Max Duration of storage (worst case scenario)	Comments
AREA 1	Mixed HIC & CDE waste overspill bay	Free standing / 3-sided concrete legio block	3.0 & 0.25	7.5	3	2	30	0.666	60	50 - 100	<72 hours	N/A
AREA 2	Mixed HIC & CDE waste reception / tipping area	Free standing / 3-sided concrete legio block	3.0 & 0.25	10	3	2	50	0.666	100	100 - 150	<12 hours	Area clear out-of-hours
AREA 3A	<80mm fines trommel	Free standing	N/A	N/A	2	2	15	0.333	10	10	<12 hours	Area clear out-of-hours
AREA 3B	<80mm fines storage bay	Free standing / 3-sided concrete panel storage bay	3.0 & 0.25	4	3	2	30	0.666	60	50 - 75	<12 hours	N/A
AREA 4	>80mm oversize fines	Free standing / 3-sided concrete panel storage bay	3.0 & 0.25	4	3	2	30	0.666	60	50 - 75	<12 hours	N/A
AREAS 5-7	Storage bays for hand sorted waste	Free standing / 3-sided concrete legio block	3.0 & 0.25	6	3	2	30	0.666	60	50 - 75	<72 hours	Pile size based on each bay
AREA 8	Sorted wood storage bay	Free standing / 3-sided concrete legio block storage bay	3.0 & 0.25	6	3	2	35	0.666	70	50 - 100	<1 week	N/A
AREA 9	Hardcore bay	Free standing / 3-sided concrete legio block storage bay	3 & 0.25	6	3	2	35	0.666	70	100 - 150	<12 weeks	Pile is non-combustible
AREA 10	Inert / soil bay	Free standing / 3-sided concrete legio block storage bay	3 & 0.25	15	3	2	65	0.666	130	300 - 450	<12 weeks	Pile is non-combustible

Conversion factors for waste piles are worked out using the following methods set out by The Environment Agency
 Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks
 Conversion of 0.6666 for waste stored within a bay
 Conversion of 0.3333 for waste stored in a free-standing stockpile

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
SITE LAYOUT & FIRE PLAN

CLIENT
Renu Recycling Ltd

PROJECT/SITE
434 London Road, Grays, London RM20 4DH

SCALE @ A1 1:200 **JOB NO** 001 **CLIENT NO** 3071

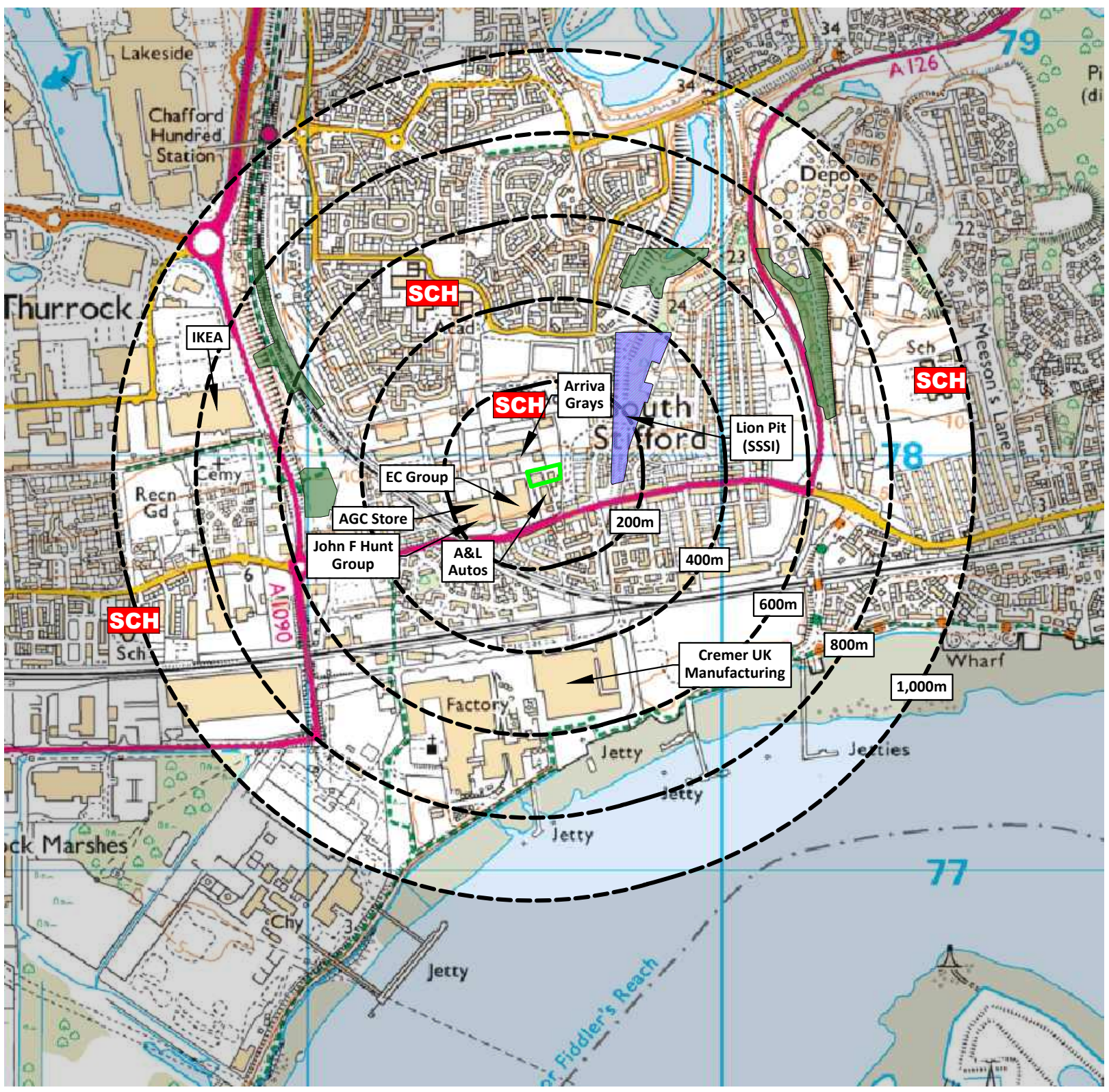
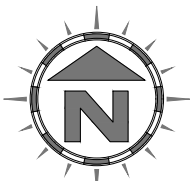
DRAWING NUMBER LON/3071/03 **REV** A **STATUS** Draft

DRAWN CP **CHECKED** --- **DATE** 10.06.20

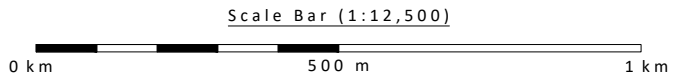
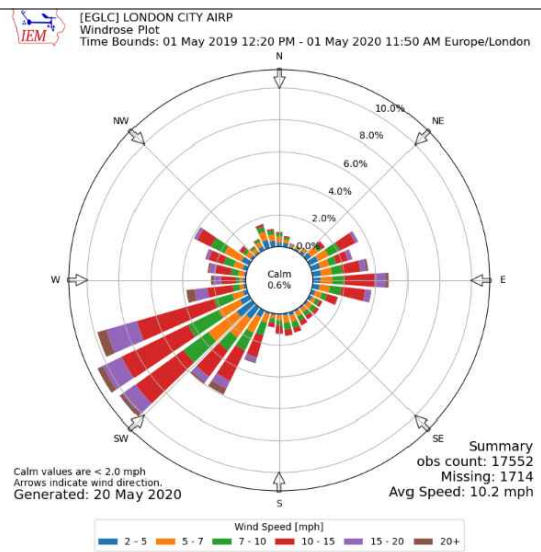
Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Stream, river, beck
- Surface water body (pond / pool / lake)
- Buildings includes residential, agriculture, industry, commerce and retail - could also include houses)
- Residential blocks / properties
- Class A roads
- Class B roads
- Class C roads
- Railway line
- SCH** School
- Woodland areas
- Deciduous woodland
- Public footpaths
- SSSI (Protected sites)



Compass Wind Rose for London City Airport (EGLC) Period 2019 - 2020
source: Iowa State University



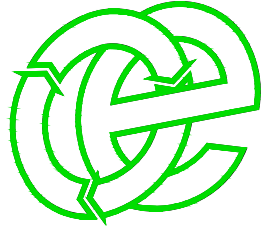
- NOTES**
1. Boundaries are shown indicatively.
 2. Wind rose data shows the prevailing wind direction to be blowing from the south-west.

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REVISION HISTORY

Rev	Date	Init:	Description:
-	10.6.20	CP	Initial Drawing

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
RECEPTOR PLAN

CLIENT
Renu Recycling Ltd

PROJECT/SITE
434 London Road, Grays, London RM20 4DH

SCALE @ A3 1:12,500	JOB NO 001	CLIENT NO 3071
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DRAWING NUMBER LON/3071/04	REV -	STATUS Issued
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DRAWN CP	CHECKED --	DATE 10.06.20
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Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

Appendix II

Record Keeping Forms

RENU RECYCLING LIMITED							
SITE INSPECTION FORM - MINIMUM ONCE DAILY - TO BE REFERENCED THROUGHOUT THE DAY							
		DAY →					
TYPE OF INSPECTION ↓	TIME OF INSPECTION (START)						
	TIME OF INSPECTION (FINISH)						
EMERGENCY ACCESS							
WEATHER TEMPERATURE							
SECURITY - GATES							
SECURITY - FENCING							
SITE ROADS / SURFACES (CLEAR FROM HAZARDS)							
WASTE BAY STORAGE							
WASTE CONTAINERS STORAGE							
WASTE TYPES - COMPATIBILITY							
COMBUSTIBLE WASTE STORAGE (WITHIN PROPOSED LIMIT)							
COMBUSTIBLE WASTE STORAGE (AWAY FROM POTENTIAL IGNITION SOURCES)							
FIRE FIGHTING EQUIPMENT E.G. FIRE EXTINGUISHERS, HOSE REEL							
STAFF ON SITE HAVE RECEIVED FIRE SAFETY TRAINING							
CONCRETED AREA AND SEALED DRAINAGE (INTEGRITY)							
DRAINAGE CHANNELS / GULLIES FUNCTIONING							
HOT EXHAUSTS FIRE WATCH							
NO SMOKING SIGNS IN PLACE							
QUARANTINE AREA CLEAR							
WELFARE / OFFICE FACILITIES							
ELECTRICAL APPLIANCES AND CABLING CHECK							
HOT EXHAUSTS FIRE WATCH (DUST/FLUFF CLEANED REMOVED)							
LITTER (I.E. LOOSE COMBUSTIBLE WASTE MATERIALS)							
REJECTED WASTE TYPES / STORAGE							
FIRES (ANY INCIDENTS REPORTED)							
PLANT/EQUIPMENT MAINTENANCE CHECKS							
DUST							
OTHER (SEE NOTES BELOW)							
INSPECTION CARRIED OUT BY							
NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):							
CHECKED BY				SIGNATURE			
POSITION				DATE			
<i>Sheet</i>				<i>of</i>			

**RENU RECYCLING LIMITED
 PREVENTATIVE MAINTENANCE CHECKLIST**

CHECKED BY	POSITION
DATE	DATE OF LAST CHECKLIST

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

RENU RECYCLING LIMITED - EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW

EMPLOYEE NAME				DATE COMPLETED			
POSITION				REVIEW DUE			
TRAINER				OUTCOME	PASSED		
POSITION					FURTHER TRAINING REQUIRED		
CARRIED OUT /SIGN OFF >	Y/N	SIGNED BY EMPLOYEE	SIGNED BY TRAINER		Y/N	SIGNED BY EMPLOYEE	SIGNED BY TRAINER
ENVIRONMENTAL PERMIT				FIRE PREVENTION PLAN			
MANAGEMENT SYSTEM				FIRE SAFETY			
SITE RULES				EMERGENCY PROCEDURES			
RECORD KEEPING / TRANSFER NOTES				STORAGE /PILE SIZE LIMITS			
RECOGNITION OF WASTE TYPES				STORAGE DURATION			
SECURITY				FIRE DETECTION			
VEHICLE CHECKS				FIRE ALARMS			
PLANT OPERATION				FIRE FIGHTING EQUIPMENT			
PLANT CHECKS				FIRE WATER CONTAINMENT MEASURES			
AMENITY - LITTER, ODOUR, PESTS etc.				Spill Clearance			
NOTES AND ACTIONS:							

Appendix III

Correspondence with Fire & Rescue Service



Essex County
Fire & Rescue Service

Jo Turton
Chief Fire Officer / Chief Executive

isaac@oaktree-environmental.co.uk

Service Headquarters

London Road
Rivenhall
Witham
Essex
CM8 3HB
Enquiries to
Information Governance Team
Tel: 01376 576000
Extension: 6299
www.essex-fire.gov.uk

Our ref: EIR/957
Your ref: N/A

21 May 2020

Dear Sir/Madam,

Thank you for your request for information under the Environmental Information Regulations 2004. I can confirm that Essex County Fire & Rescue Service does hold this information.

Please see below the answer to your request.

Questions and final response:

We have a client who operates a recycling facility located at 434 London Road, Grays, RM20 4DH. We are in the process of submitting a Fire Prevention Plan (FPP) to the Environment Agency. As part of the FPP we are required to locate the closest fire hydrants to the site and obtain the flow rate for the hydrants. Would you be able to provide us with this information please?

There is one hydrant (50/610) located at the entrance to the road where the site is. We do not carry out any flow or pressure tests on the statutory hydrants we maintain. I can confirm though that the hydrant was last tested on its 3 yearly cycle on December 2017 and was satisfactory for firefighting purposes. This hydrant is due to be tested again in December 2020.

Attached is a map & google street view showing the location of the hydrant.

If you are dissatisfied with the handling of your request, you have the right to apply for an internal review. Internal review requests should be submitted within two months of the date of your original email and should be addressed to: Internal Review, Performance & Data Team, Kelvedon Park, Rivenhall, Witham, Essex CM8 3HB

Please ensure that you quote the above reference number in all future communications.

Please note that the response and data released to you as part of this request will be published on the Essex County Fire & Rescue Service website. The website address is <http://www.transparency.essex-fire.gov.uk/> All requests will be anonymised and no personal information including contact details will be disclosed as part of this process.

Thank you for your interest in Essex County Fire And Rescue Service.

Yours faithfully

Chris Parkinson

Information Governance

Essex County Fire & Rescue Service

Telephone: 01376 576299

E-mail: informationgovernance@essex-fire.gov.uk