

# NOISE IMPACT ASSESSMENT

2, Old Swan Road, Newton-le-Willows, Merseyside, WA12 0EZ

**Gings Ltd.**

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# **1 Introduction**

## **1.1 Background to Report**

1.1.1 Oaktree Environmental Ltd have been commissioned by Gings Ltd. to undertake a Noise Impact Assessment (NIA) for their site situated at 2, Old Swan Road, Newton-le-Willows, Merseyside, WA12 0EZ. The NIA has been prepared to accompany an application for a permit variation to increase the sites throughput to 75,000 tonnes per annum (tpa) and to allow for the treatment of waste via screening, crushing and shredding. The proposed site layout plan is shown on Drawing No. SWAN/3345/03.

1.1.2 This report utilises measurements of plant/equipment and background noise levels taken by Oaktree Environmental Ltd in order to provide an assessment of the noise associated with the site as per BS4142:2014 and the relevant Environment Agency guidance.

## **1.2 Suitable credentials**

1.2.1 The author of the report is Thomas Benson (Tom), a Principal Consultant at Oaktree Environmental Limited, with 9+ years' experience in the environmental sector, having graduated in Summer 2013. Tom is a full member of the Institute of Environmental Sciences as well as being an Associate Member of the Institute of Acoustics.

1.2.2 Tom has worked in the area of acoustics in both the private and public sector, Tom was previously employed as a regulator on behalf of Salford City Council from May 2016 to August 2017 having worked as a planning consultee, primarily commenting with regards to noise and contaminated land issues. This involved the review of Noise Impact Assessments, Noise Management Plans and Verification documents submitted as part of the planning process, design of bespoke noise related planning conditions as well as the provision advice to colleagues in the planning department.

1.2.3 It was during this time that Tom gained the Certificate of Competence in Environmental Noise Measurement from the University of Liverpool by October 2016 having initially undergone internal training.

- 1.2.4 Since January 2018, Tom has worked for Oaktree Environmental, providing Noise Impact Assessments, Noise Management Plans in support of planning and permitting applications, as well providing general acoustic advice to clients, for example in response to complaints, site design etc.
- 1.2.5 Tom has also acted as expert witness in several planning hearings and appeals.
- 1.2.6 Copies of IOA certificates or IOA membership can be provided upon request.

### **1.3 Site location**

- 1.3.1 The site is located on Land at 2, Old Swan Road, Newton-le-Willows, Merseyside, WA12 0EZ. The site is surrounded by arable farmland with the closest residential receptors located approximately 300m northwest of the site.
- 1.3.2 Access to the site is via the access road leading from Swan Road to the north.
- 1.3.3 The site is located primarily in an agricultural setting; however, a relatively recently constructed housing estate lies approximately 500m east of the site. The nearest residential receptors associated with this are located off Brimstone Drive and Admiral Close.

## **1.4 Hours of operation**

1.4.1 The site will be operated in accordance with the following hours:

- Monday-Friday- 07:00-17:00
- Saturday- 07:00-13:00
- Sunday/Bank holidays- 07:00-13:00



## **2 Relevant Noise Guidance**

### **2.1 Environment Agency Guidance**

2.1.1 This document has been produced in accordance with the EA's guidance "Noise and vibration management: environmental permits" updated 31 January 2022.

### **2.2 Noise Policy Statement for England**

2.2.1 The Noise Policy Statement for England (NPSE), March 2010, sets out the Governments long-term noise policy, the aims of which are:

2.2.2 "Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- Avoid significant adverse effects on health and quality of life;
- Mitigate and minimise adverse effects on health and quality of life;
- Where possible, contribute to the improvement of health and quality of life."

2.2.3 The first aim of the NPSE is to avoid significant adverse effects, considering the shared UK principles of sustainable development.

2.2.4 The second aim provides guidance on the scenario when the potential noise impact falls between the LOAEL (Lowest Observed Adverse Effect Level) and the SOAEL (Significant Observed Adverse Effect Level), in which case it is stated; "all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development". However, it is also stated "This does not mean that such adverse effects cannot occur".

2.2.5 With regards to the SOAEL, the document states "It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations", acknowledging that this is very much dependent on the noise source, the

receptor, and the time of day. Therefore, the NPSE provides the necessary policy flexibility until further guidance / evidence is available.

- 2.2.6 Other guidance will need to be taken into account when applying the principles of the NPSE, as well the nature of the proposed development and its specific circumstances.

## **2.3 National Planning Policy Framework**

- 2.3.1 The NPPF, revised in 2019, replaces the Planning Policy Guidance Note 24 (PPG 24) and does not refer to any other relevant noise guidance, other than the NPSE.

- 2.3.2 With regards to noise, the NPPF states the planning process should “contribute and enhance the natural and local environment”, with regards to noise this means “preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affect by unacceptable levels” of, amongst other things, noise.

- 2.3.3 The NPPF states that Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life,

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

## **2.4 Planning Practice Guidance – Noise**

- 2.4.1 Although this NVMP is being submitted to the Environment Agency, it is important to set out the appropriate guidance set out in the NPPF which advises that the Local Authority should consider the following when decision making:

- Whether or not a significant adverse effect is occurring or likely to occur.
- Whether or not an adverse effect is occurring or likely to occur.
- Whether or not a good standard of amenity can be achieved.

2.4.2 As previously discussed within the NPSE, the guidance discusses the LOAEL and SOAEL and provides scenarios that could be expected for the perception level of noise, plus the associated activities that may be required to bring about the desired outcome. Again, as with the NPSE, no objective noise levels are provided for LOAEL or SOAEL.

2.4.3 It is stated that “the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation”. These factors include:

- The absolute noise level of the source and the time of day it occurs.
- Where the noise is non-continuous (intermittent), the number of noise events along with any patterns of occurrence.
- The frequency of content and acoustic characteristics (tonality etc.) of the noise.
- The effects of noise on the surrounding wildlife.
- The acoustic environment of external amenity areas provided as an intrinsic part of the overall design.
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

### **3 Sensitive Receptors**

#### **3.1 Receptor Plan**

3.1.1 A sensitive receptors plan (SRP) has been produced to accompany this NVMP and is shown and Appendix I as on Drawing No. SWAN-3345-04. The receptors highlighted are those which are considered to be at risk by noise generated by the site.

#### **3.2 Noise Sensitive Receptors**

3.2.1 The receptors listed from the SRP are also shown in the table in the NMP which will be sent in conjunction with this report to accompany the application.

3.2.2 The site lies within a primarily agricultural setting within Sankey Valley Park with the nearest residential noise sensitive receptors are approximately 500m to the southeast of the site located just off Swan Road.

3.2.3 Other noise emitting operations within the vicinity include Lionel E Collier Topsoil Delivery a Topsoil supplier, surrounding farms within the area.

3.2.4 In terms of limiting potential noise impact, a site-specific Noise Management Plan (Document Ref. SWAN/3345/003 -FB) taking into account the findings of this report have also been prepared in order to ensure the noise levels at the site can be managed further and reduce any impact on the surrounding receptors. The proposed operation and mitigation measures for the site has been planned in conjunction with the acoustic assessment carried out by Oaktree Environmental and submitted to the Environment Agency (EA) and therefore, has been designed with limiting the impacts from noise on the above receptors in mind.

## 4 Noise Assessment Criteria

### 4.1 Overview

4.1.1 In order to assess the impacts of existing road traffic and industrial noise on the proposed development, the following documents have been used:

- BS8233:2014
- BS4142:2014
- World Health Organisation (WHO) Guidelines on Community Noise

### 4.2 BS8233:2014

4.2.1 This document provides guidance on the relevant level of sound insulation required by a variety of building types affected by general environmental noise and provides recommendations for appropriate internal ambient noise level criteria for a variety of different situations including residential dwellings. The table below includes the proposed noise criteria within BS8233:2014 with regards to residential properties:

**Table 3.1 - BS8233:2014 Internal Criteria**

Activity	Location	07:00 – 23:00	23:00 – 7:00
Resting	Living rooms	35 L <sub>Aeq, 16hour</sub>	-
Dining	Dining room	40 L <sub>Aeq, 16hour</sub>	-
Sleeping	Bedroom	35 L <sub>Aeq, 16hour</sub>	30 L <sub>Aeq, 16hour</sub>

### 4.3 BS4142:2014

4.3.1 BS4142:2014 provides a method for assessing and rating sound of an industrial / commercial nature. The method described in the standard uses the rating level from a noise source and the existing background noise level to assess the potential effects of sound on the residential premises upon which sound is incident.

4.3.2 Using this method, the background sound level is subtracted from the rating level. The resulting figure is assessed using the following guidance from the document:

- The greater the difference between the background sound level and the rating level, the greater the impact on the receptor.
- An exceedance of the background level of around 10dB or more is likely to be an indication of a significant adverse impact, dependent on the context.
- An exceedance of the background level of around 5dB is likely to be an indication of an adverse impact, dependent on the context.
- The lower the rating level compared to the existing background level, the less likely an adverse impact or a significant adverse impact. Where the rating level does not exceed the background level, this is indicative of a low impact, dependent on context.

4.3.3 The document introduces a requirement to consider and report the uncertainty in the data as well as also including guidance for applying a correction/penalty for certain adverse acoustic features such as tonality, impulsivity, or intermittency. The following table summarises the corrections based on the subjective assessment of the noise.

**Table 3.2 - BS4142:2014 Corrections and Penalties**

	<b>Tonality</b>	<b>Impulsivity</b>	<b>Other characteristics</b>
Just perceptible	+ 2dB	+ 3dB	
Clearly perceptible	+ 4dB	+ 6dB	
Highly perceptible	+ 6dB	+ 9dB	
Readily Distinctive against Residual Environment			+ 3dB

## **4.4 WHO Guidelines for Community Noise**

4.4.1 The WHO Guidelines (1999) recommends indoor night-time guidelines in order to avoid sleep disturbance, the document states these to be 30 dB (LAeq) and 45 dB (LA<sub>fmax</sub>) for continuous and individual noise events respectively.

4.4.2 The document states that the number of noise events should also be considered and that individual noise events should not exceed 45 dB (LA<sub>fmax</sub>) more than 10 – 15 times per night.

- 4.4.3 The WHO document also recommends that steady, continuous noise levels should not exceed 55 dB (LAeq) on outdoor living areas (balconies, terraces etc.). However, in order protect the majority of individuals from moderate annoyance, external noise levels should not exceed 50 dB (LAeq).

## **4.5 Environment Agency Guidance**

- 4.5.1 This document has been produced in accordance with the EA's guidance "Noise and vibration management: environmental permits" updated 31 January 2022. With particular relevance are the recommendations with regard to context, which build on those discussed within BS4142:2014.

## **5 Existing Noise Climate and Background Levels**

### **5.1 Procedure and Monitoring Locations**

5.1.1 A background noise survey in accordance with BS 7445-1: 2003 by Oaktree Environmental Ltd. Attended background level measurements were taken at locations representative of the nearest noise sensitive receptors within the vicinity of the site on the 15<sup>th</sup> of January 2024 by Tom Benson.

5.1.2 The methodology of attended measurements has the benefit of allowing for significant level of observation to be made on the existing noise climate at the nearest residential receptors which adds context to the figures surveyed. BS4142 makes numerous comments in relation to context and therefore it was considered that this approach was more beneficial at the time in relation to BS4142, than longer term unattended measurements. The site was not operational when measurements were taken.

5.1.3 Should it be required, photographs and videos can be provided, along with the noise measurement files to corroborate the above observations.

5.1.4 The measurement locations are presented within the Noise Monitoring Plan within Figure 4.1 overleaf.



**Figure 4.1 – Noise Monitoring Locations**



## **5.2 Weather Conditions**

5.2.1 Raw data for the weather is provided in Table 3.3 below.

**Table 3.3 – Weather Conditions Table (Oaktree attended measurements)**

<b>Date</b>	<b>Wind Speed (max)</b>	<b>Cloud Cover</b>	<b>Temperature</b>	<b>Precipitation</b>
15/01/2024	3m/s	0-25%	0-2 <sup>o</sup> C	None recorded whilst onsite

## **5.3 Field Calibration**

5.3.1 The factory calibration dates for the survey equipment used by Oaktree Environmental are shown below in Table 3.5. However, before and after every noise survey undertaken by Oaktree Environmental and post noise survey a field calibration is undertaken.

5.3.2 The onsite calibration noted a slight drift from the calibrated value. The equipment had been set prior to the monitoring survey for the full 3-hour period of attended monitoring at both locations and therefore was not turned off or moved during the survey.

## 5.4 Equipment Used During the Survey

5.4.1 Details of the equipment used during the survey are shown below in Table 3.5 (Oaktree Survey Equipment):

**Table 3.5 - Survey Equipment**

Description	Model	Manufacturer	Serial No.	Calibration Date
Precision Sound Analyser	NOR 145	Norsonic	14530082	May 2023
Pre-amplifier 1	Nor1209	Norsonic	23775	May 2023
Microphone 1	Nor1227	Norsonic	527239	May 2023
Class 1 Sound Analyser	NOR 150	Norsonic	15030504	October 2022
Microphone	Norsonic Type 1225	Norsonic	305208	October 2022
Field Calibrator	NOR 1251	Norsonic	35205	October 2022

## 5.5 Results

5.5.1 The results of the background noise monitoring survey are tabulated below within Tables 4.2 to 4.3 for both monitoring positions.

**Table 4.2 – Weekday Measurement Results for Noise Monitoring Position A (NMP A)**

Measurement Time	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>
09:06-10:06	49.9	42.6	46.8	74.7
10:06-11:06	43.0	40.5	45.1	84.1
11:06-12:06	42.2	39.6	45.9	86.6

**Table 4.3 – Weekday Measurement Results for Noise Monitoring Position B (NMP B)**

Measurement Time	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>
09:13-10:13	48.6	43.5	55.5	76.0
10:13-11:13	45.1	41.0	54.8	76.8
11:13-12:13	44.3	40.7	57.4	87.8

## **5.6 Existing Noise Climate**

5.6.1 The existing noise climate at NMP A typically comprised;

- Distant road traffic, possibly from the A580,
- More occasional local road traffic along Swan Road,
- Noise arising from the use of the equestrian space to the south of the monitoring position,

5.6.2 The existing noise climate at NMP B typically comprised;

- Distant road traffic, possibly from the A580,
- More occasional local road traffic along Common Road and use of the local business, such as HGVs arriving/exiting from land uses such as as Lionel E Collier-Topsoil Delivery located just off Swan Road and noise from Jones (Asbestos Removal & Collection Services).

## **5.7 Justification of Noise Monitoring Positions**

5.7.1 The background monitoring has been produced in order to allow for a Noise Impact Assessment to undertaken as per BS4142:2014. The noise monitoring positions are representative of the residential clusters in the vicinity of the site. Reference should be made to the Receptors Plan Doc No. SWAN-3345-04 submitted as part of the application for further details.

## **6 Noise Impact Assessment**

### **6.1 Existing Operations**

6.1.1 The existing EP does not allow any mechanical treatment of waste to take place at the site. Only activities permitted are the acceptance, sorting (by hand/grab), bulking and removal of waste.

### **6.2 Proposed Operations**

6.2.1 Noise sources associated with the proposed operation of the site are considered to comprise the;

- Loading and operation of the crusher and screener,
- Movement/sorting of wastes with the sites loading shovel,
- Loading and operation of the shredder and trommel,
- Loading of HGVs prior to egress,
- Tipping of incoming wastes,

6.2.2 Typically, the shredder and trommel will be operational throughout the working day. However, crushing and screening is likely to only be undertaken more than once a week.

6.2.3 It will not be necessary to operate the crusher/screener and shredder/trommel lines concurrently.

6.2.4 Table 5.1 below details the plant that will be used for the proposed operations at the site. This includes details on the source of the data as well as relevant notes on geometry etc. assumed within the modelling.

**Table 5.1 - Noise levels Associated with Operations**

<b>Activity</b>	<b>Noise Level (LAeq)</b>	<b>Source/notes</b>
Sorting/movement of waste using the loading shovel	76.4 at 3m	Oaktree measurement of similar activity  Present within the model as a point source at 1.5m height.  Noise source assumed to be active for 50% of the time based on likely operation of the site.
Tipping of incoming waste	81.6 at 5m	Oaktree measurement of similar activity  Present within the model as a point source at 0.5m height.  Noise source assumed to be active for 5 minutes per hour.
Loading and operation of the crusher	92.1 at 2.5m	Oaktree measurement of similar activity. Present within the modelling as a point source at 2m height operating in steady state.
Loading and operation of the screener	90.1 at 2m	Oaktree measurement of similar activity. Present within the modelling as a point source at 2m height operating in steady state.
Loading and operation of the Shredder (Teuton Z60)	88.6 at 2m	Oaktree measurement of similar activity. Present within the modelling as a point source at 2m height operating in steady state.
Operation of the Trommel	82.6 at 1m	Oaktree measurement taken from similar site. Located within the open fronted waste building and assumed to be operating in steady state.  The building is 4m height to the eaves and cladding is assumed to comprise 45mm trapezoidal steel sheeting.
Heavy Goods Vehicle accessing the site	80.0 at 10m	Measurement taken from BS5228:2014. Present as a line source within the model. 1 vehicle per hour assumed.

6.2.5 To assess the potential noise impacts associated with the installation of the recycling facility on the nearby noise sensitive receptors, noise models have been created using CadnaA.

The software package utilises standardised noise prediction methodologies and algorithms to predict the propagation of noise from source to receiver.

6.2.6 The CadnaA noise model was constructed using OS mapping Opendata and Google Earth satellite imagery.

6.2.7 The following assumptions/parameters are made within the model:

- The intervening land between the site boundary and residential properties was modelled with  $G = 1.0$  as it was considered that the land is predominantly acoustically absorptive.
- All residential buildings have been modelled as 4.0m in height.
- Buildings were set as acoustically reflective, with a reflection loss of 1 dB. A maximum order of reflection of 3.0 has been assumed.
- Noise levels were determined at residential properties representing the nearest residential facades. The height of each receiver was 1.5 m, consistent with the height of a typical first storey window.
- The predicted noise levels were free-field, A-weighted, sound pressure levels. The noise contours generated within the model are also at a height of 1.5 m, assumed to be the worst-case scenario.
- Surrounding building heights have been taken from observations and information provided from the Local Authority public access where available.
- All barriers are modelled at 3.0m as per the Site Layout Plan.

6.2.8 It should be considered that the model comprises a worst-case scenario assessment due to a result of the precautionary assumptions made.

6.2.9 Figures 5.2-5.3 overleaf detail the results of the modelling described previously. Figure 5.2 comprises the typical operation of the site (i.e. no crushing and screening) whilst figure 5.3 comprises the crushing/screening activities in addition to the ancillary activities associated with the site, representative of 1-4 days per month when crushing/screening takes place.

Figure 5.2 – Noise modelling of typical operations including shredding and operation of the trommel

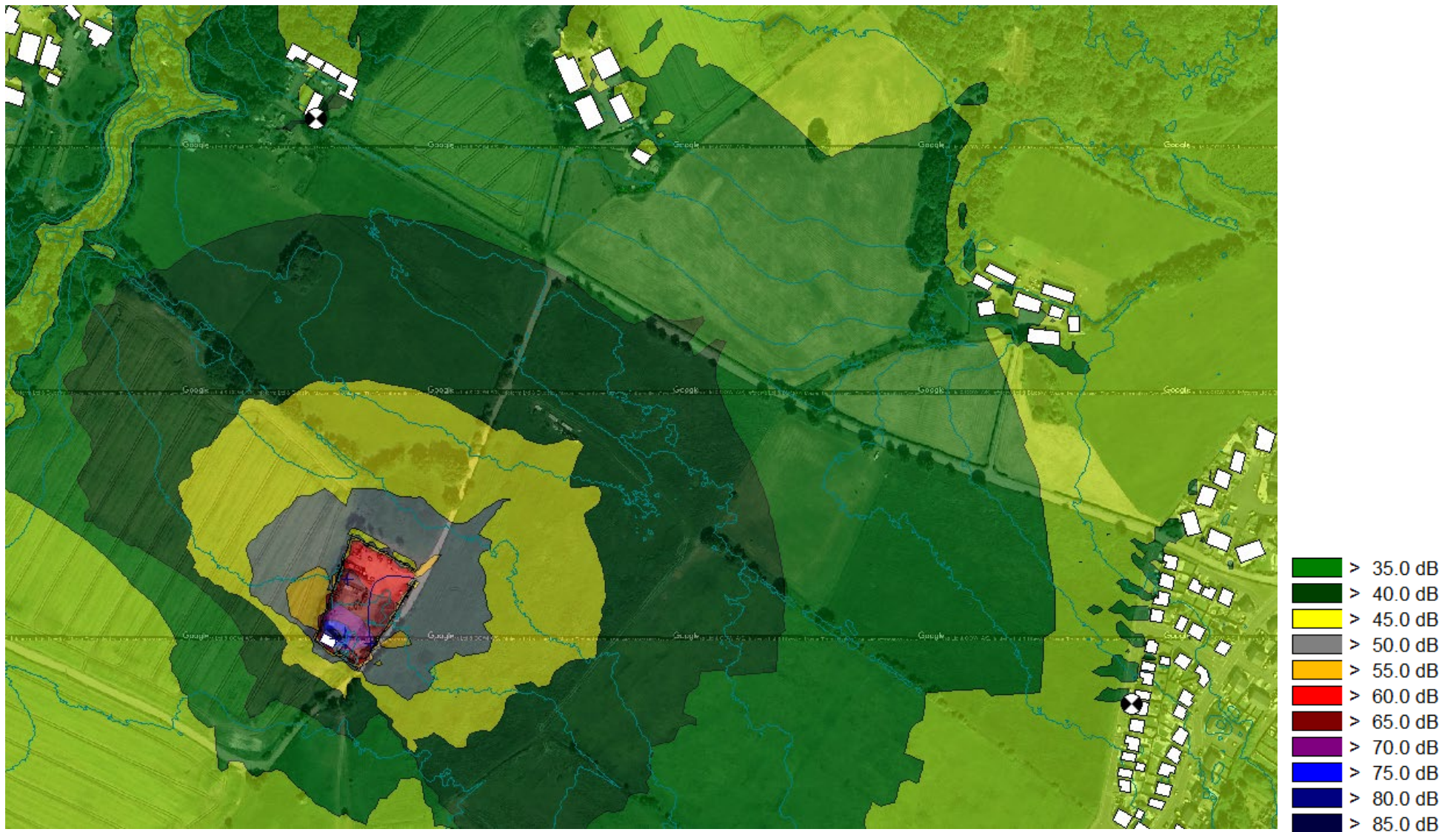
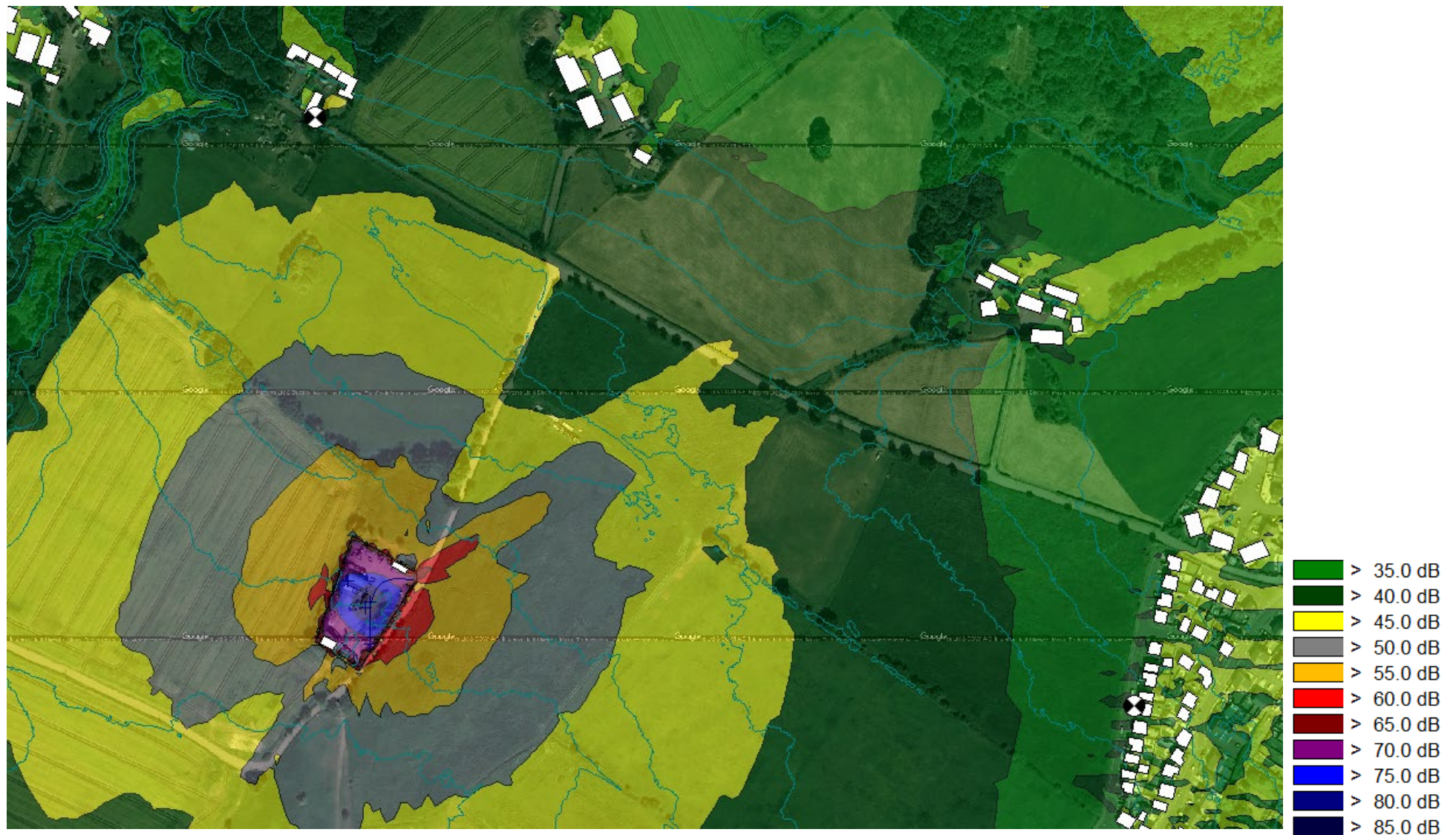


Figure 5.3 – Noise modelling of crushing/screening activities





## 6.3 Discussion

6.3.1 Tables 5.4 and 5.5 below compare the calculated rating levels using the results of the modelling to the previously collected background figures as per BS4142:2014.

6.3.2 With regards to character corrections, the noise of the onsite operations is primarily tonal in nature as a result of the consistent processing via the treatment plant. However, the plant is located at some distance from the nearest receptors, which lie within an area of consistent road traffic which is of a similar nature. Due to the distance and site setting, +2 is appropriate.

6.3.3 In terms of impulsive bangs and crashes may also be distinguishable as a result of falling material (i.e. tipping and loading of HGVs, reverse alarms etc.). However, these are likely to be secondary when compared to the primary tonal element of the noise sources. Therefore, a +3 penalty has been applied.

**Table 5.4 – Preliminary BS4142:2014 assessment with regards to typical operations**

	Calculated noise level at dwellings off Grange Road (NMP A)	Calculated noise level at dwellings off Brimstone Drive (NMP B)	Comments
Calculated noise level as per figure 5.2-5.3	35.9	34.8	
Addition of relevant penalties as per BS4142:2014	+5 = 40.9	+5 = 39.8	As per section 6.2.1-6.2.3
Comparison to lowest measured background level	40.9-39.2 = +1.7dB (A)	39.8-40.0= -0.2dB (A)	Low impact as per BS4142:2014

6.3.4 As per Table 5.4, the calculated rating level is below the threshold at which an adverse impact is considered possible and therefore the resultant assessment outcome is low.

**Table 5.5 – Preliminary BS4142:2014 assessment during operation of the crusher and screener**

	<b>Calculated noise level at dwellings off Grange Road (NMP A)</b>	<b>Calculated noise level at dwellings off Brimstone Drive (NMP B)</b>	<b>Comments</b>
Calculated noise level as per figure 5.2-5.3	42.7	40.8	
Addition of relevant penalties as per bs4142:2014	+5 = 47.7	+5 = 45.8	As per section 6.2.1-6.2.3
Comparison to lowest measured background level	47.7-39.2 = +8.5dB (A)	45.8-39.8= +6.0dB (A)	See subsequent discussion

- 6.3.5 As can be seen from Table 5.5, the +5 threshold is marginally exceeded when compared to the lowest measured background level.
- 6.3.6 It should be noted that the lowest LA90 for both receptors is between the hours of 11:00-12:00 rather than during earlier hours, this is likely as a result of the lower levels of road traffic at these times.
- 6.3.7 It should be noted that when compared to the earlier monitoring periods of 09:00-10:00, the +5 threshold is not exceeded for the receptors to the east, whilst the rating level is 5.1dB(A)+ above the LA90 figure for the receptors to the NW.
- 6.3.8 Considering the; site setting, very limited duration/frequency of inert processing via the crusher and screener, higher background levels within earlier morning periods ensuring that the impact is limited at these times, the resultant impact is considered acceptable in this instance.
- 6.3.9 In addition, a +5 penalty may also be considered excessive considering the prominence of road traffic and limited impulsive events, the lowering of this figure would reduce the rating level further.

6.3.10 It should be observed that the rating levels in lieu of character corrections, between 34.8-42.7dB (A) are comfortably within the WHO recommendations for external amenity areas and, when assuming 15dB for an open window, internal criteria as per BS8233:2014 are also likely achieved. This gives further context to the resultant assessment outcome.

## **6.4 Uncertainty**

6.4.1 Uncertainty in this assessment was controlled via the following precautions/procedures:

- Both the sound level meter and calibrator have a traceable laboratory calibration and the meter was field-calibrated both before and after the measurements.
- Weather during the background sound monitoring was ideal for outdoor noise monitoring (dry, wind speed under 5m/s).
- The measurement locations are considered representative of the existing noise climate outside the nearest residential dwellings to the proposed development given the nature of the existing noise climate. Whilst a greater level of background data would be desirable, it is considered unlikely that it would change the findings of the report.

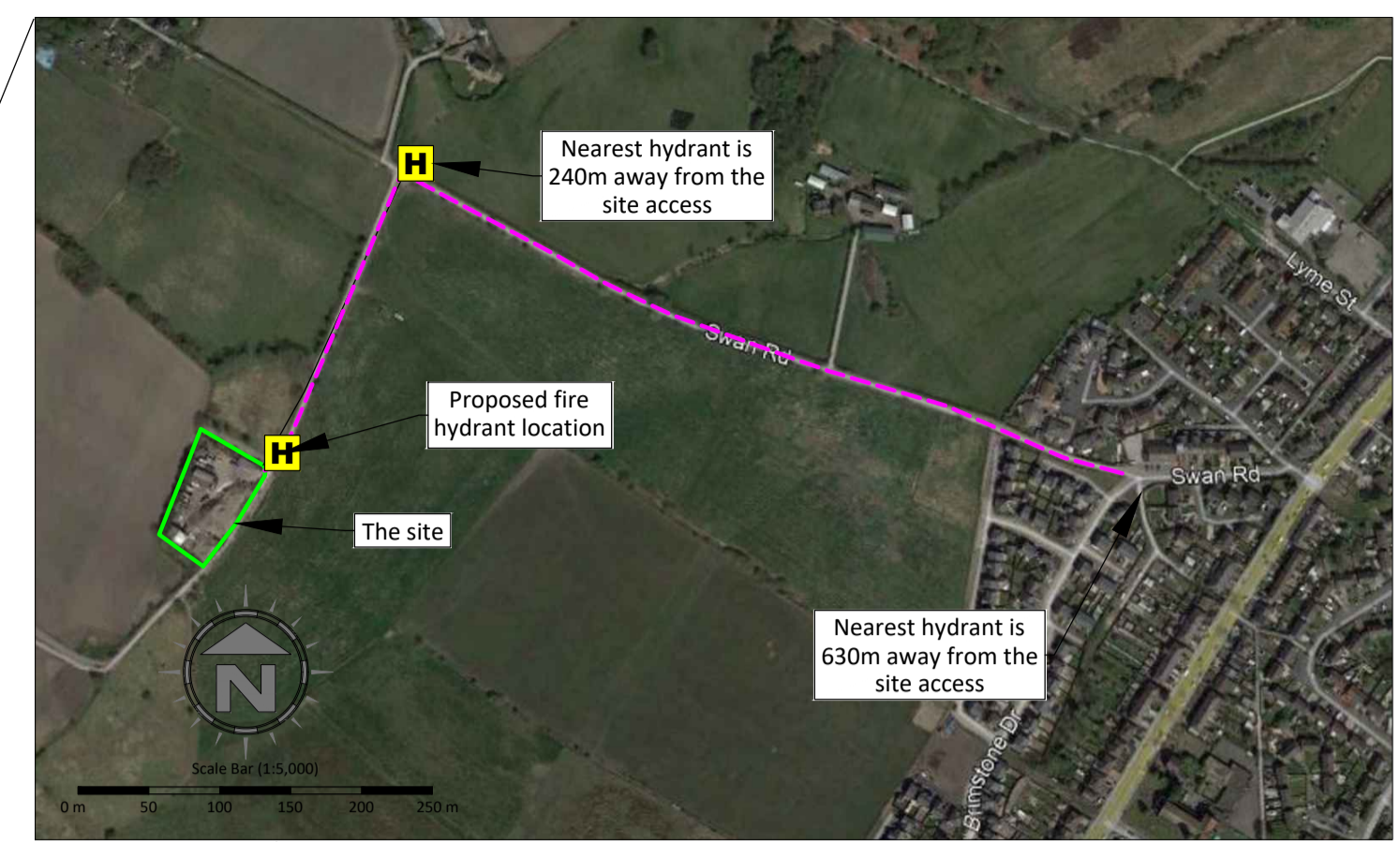
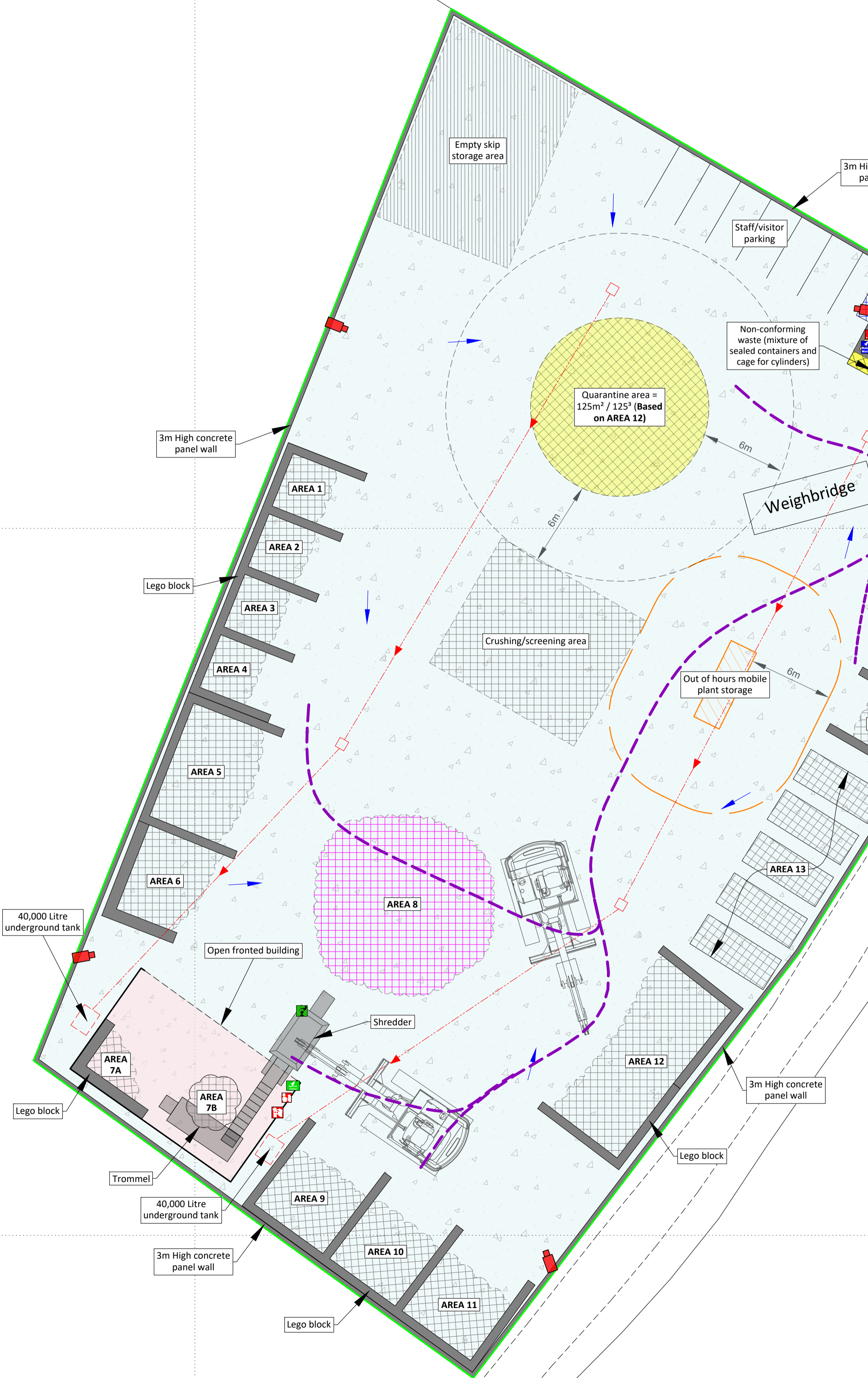
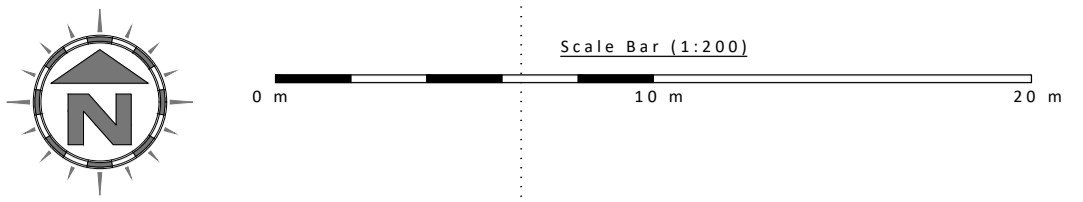
## **7 Conclusion**

### **7.1 Summary& Recommendations**

- 7.1.1 Oaktree Environmental have undertaken a noise impact assessment for the site at 2, Old Swan Road, Newton-le-Willows, Merseyside, WA12 0EZ.
- 7.1.2 The primary receptors are considered to be the residential dwellings to the northwest located just off swan road and the residential dwellings to the east off Brimstone Drive.
- 7.1.3 The site has been assessed with regards to BS4142:2014 and it is considered that the impacts associated with the proposed operation of the site are acceptable based on the comparison of the calculated rating level to the proposed background level.
- 7.1.4 In addition, noise emissions will be controlled and regulated via the sites Noise Management Plan which is to be reviewed and regulated by the EA.
- 7.1.5 Therefore, based on the above, anticipated noise levels associated with the proposed development are acceptable and it should be considered that no further mitigations or assessment is required at this time.

# Appendix I

## Drawings



**NOTES**  
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**REVISION HISTORY**

Rev:	Date:	Init:	Description:
-	29.02.24	CP	Initial drawing

- Key:**
- Permit boundary
  - Waste storage areas
  - Non-waste fuel, fluids, gas and cylinder storage
  - Temporary storage/sorting areas
  - Non-waste storage areas
  - Concrete areas
  - Waste recycling / storage buildings (impermeable concrete floor)
  - Office/welfare
  - Out-of-hours plant storage
  - 300mm thick solid concrete wall
  - Quarantine area
  - Fire fighting equipment / extinguishers (indicative locations)
  - Fire alarms (indicative location)
  - Spill kits (indicative location)
  - Plant shut off
  - Hose reel
  - Mains water
  - Designated smoking area
  - Access route for emergency services
  - Fire hydrants
  - Fire assembly points
  - Pan, tilt and zone cameras with 360° 50m coverage
  - Gully
  - Surface water fall direction
  - Contaminated drainage

Plan Ref	Description	EWC code/s	Storage type	Containment	Height / width of firewall (m)	Max Width (m)	Max Length (m)	Height (m)	Max area (m2)	Conversion factor used	Volume (m3)	Tonnage (approx.)	Maximum storage durations
AREAS 1 - 4	Bulky inert i.e. hardcore, stone including crushed material	19 12 12 (aggregates)	As above	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	5	4	3	20	0.75	45	54	<4 weeks
AREAS 1 - 4	<40mm screened (inert) fines soils, stones received from AREA 9	19 12 12 (qualifying fines / screened soils) -	Sorted (by screen)	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	5	4	3	20	0.75	45	54	<4 weeks
AREAS 5 & 7A	>150mm light residual waste	19 12 12 (shredded waste sent as SRF)	Processed / shredded	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	8	7	3	56	0.75	126	42	<5 days
AREAS 6 & 7B	<10mm light residual fines	19 12 12 (trommel fines)	Processed / shredded / trommel	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	7	5	3	35	0.75	79	26	<5 days
AREA 8	>150mm light residual waste (pre-shred pile) - pile clear one hour before end of day	Mixture of 15 01 01, 15 01 02, 15 01 05, 15 01 09, 15 02 03, 19 12 01, 19 12 08, 19 12 10, 19 12 12, 20 01 01, 20 01 10, 20 01 11, 20 03 01	Hand sorted or by grab arising from tipping area (unprocessed)	Free standing inside a three-sided concrete interlocking block storage bay	N/A	15	12	4	135	0.333	180	59	<11 hours
AREA 9	Mixed C&D waste (95% inert)	15 01 07, 17 02 02, 17 06 04, 17 09 04, 19 12 05, 20 01 02 (inert waste only with minor constituents)	Hand sorted or by grab arising from tipping area above (unprocessed)	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	7.2	6	3	43.2	0.75	97	117	<5 days
AREA 10	Bulky waste i.e. mattresses	20 03 07	Hand sorted or by grab arising from tipping area above (unprocessed)	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	7.2	6	3	43.2	0.75	97	117	<5 days
AREA 11	Wood	17 02 01, 19 12 07, 20 01 38	Hand sorted or by grab arising from tipping area above (unprocessed)	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	7.2	6	3	43.2	0.75	97	117	<72 hours
AREA 12	Waste reception (tipping), inspection and sorting area	Mixture of 17 09 04, 20 03 01, 20 03 07	Free-standing / unprocessed	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	14	7	3	98	0.75	221	165	<72 hours
AREA 13	Sorted recyclables comprising wood, scrap metal, plasterboard, WEEE, uPVC, paper & card, plastic (loose >150mm) - pile based on each container size	02 01 04, 07 02 13, 12 01 05, 15 01 04, 17 02 03, 17 04 07, 17 08 02, 17 09 04, 19 12 04, 20 01 39, 19 12 01, 19 12 02, 19 12 03, 19 12 04, 19 12 05, 19 12 07 & 20 01 40	Hand sorted or pre-segregated	Sealed containers	N/A	6.2	2.44	2.62	15.128	1	40	40	<5 days
AREAS 13 - 17 * non-conforming containers	Non-ferrous metal, WEEE, tyres and batteries (non-conforming) (pile size based on per bay)	11 02 03, 11 02 06, 11 05 01, 11 05 02, 12 01 01, 12 01 03, 15 01 03, 15 02 14, 16 02 16, 16 06 04, 16 06 05, 17 04 01 - 17 04 07, 17 04 11, 19 12 03, 20 01 34, 20 01 36 & 20 01 40	Hand sorted	Free standing inside a three-sided concrete interlocking block storage bay	4 / 0.8	5	4	3	20	0.75	45	40 - 50	<72 hours
AREAS 14 - 17	Sorted recyclables comprising wood, scrap metal, plasterboard, WEEE, uPVC, paper & card, plastic (loose >150mm) - pile based on each bay size	03 01 04, 07 02 13, 12 01 05, 15 01 04, 17 02 03, 17 04 07, 17 08 02, 17 09 04, 19 12 04, 20 01 39, 19 12 01, 19 12 02, 19 12 03, 19 12 04, 19 12 05, 19 12 07 & 20 01 40	Hand sorted or pre-segregated	Free standing inside a three-sided concrete interlocking block storage bay	5	4	3	20	0.75	45	40 - 50	<72 hours	

**Oaktree Environmental Ltd**  
Waste, Planning and Environmental Consultants



**DRAWING TITLE**  
SITE LAYOUT & FIRE PLAN

**CLIENT**  
Gings Ltd

**PROJECT/SITE**  
2, Old Swan Road, Newton-le-Willows, Merseyside WA12 9YU

**SCALE @ A1** 1:200      **CLIENT NO** 3345      **JOB NO** 003

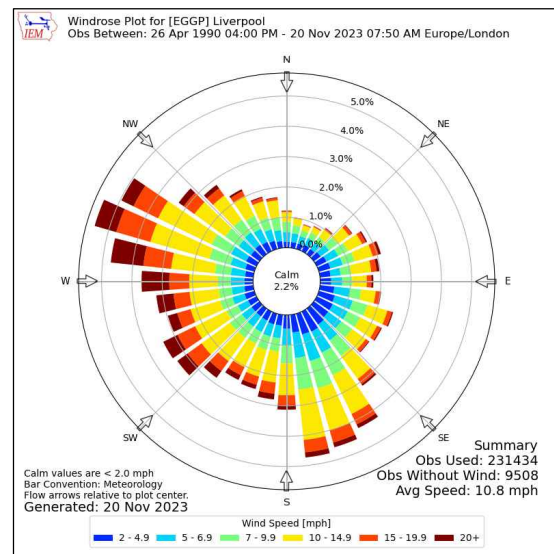
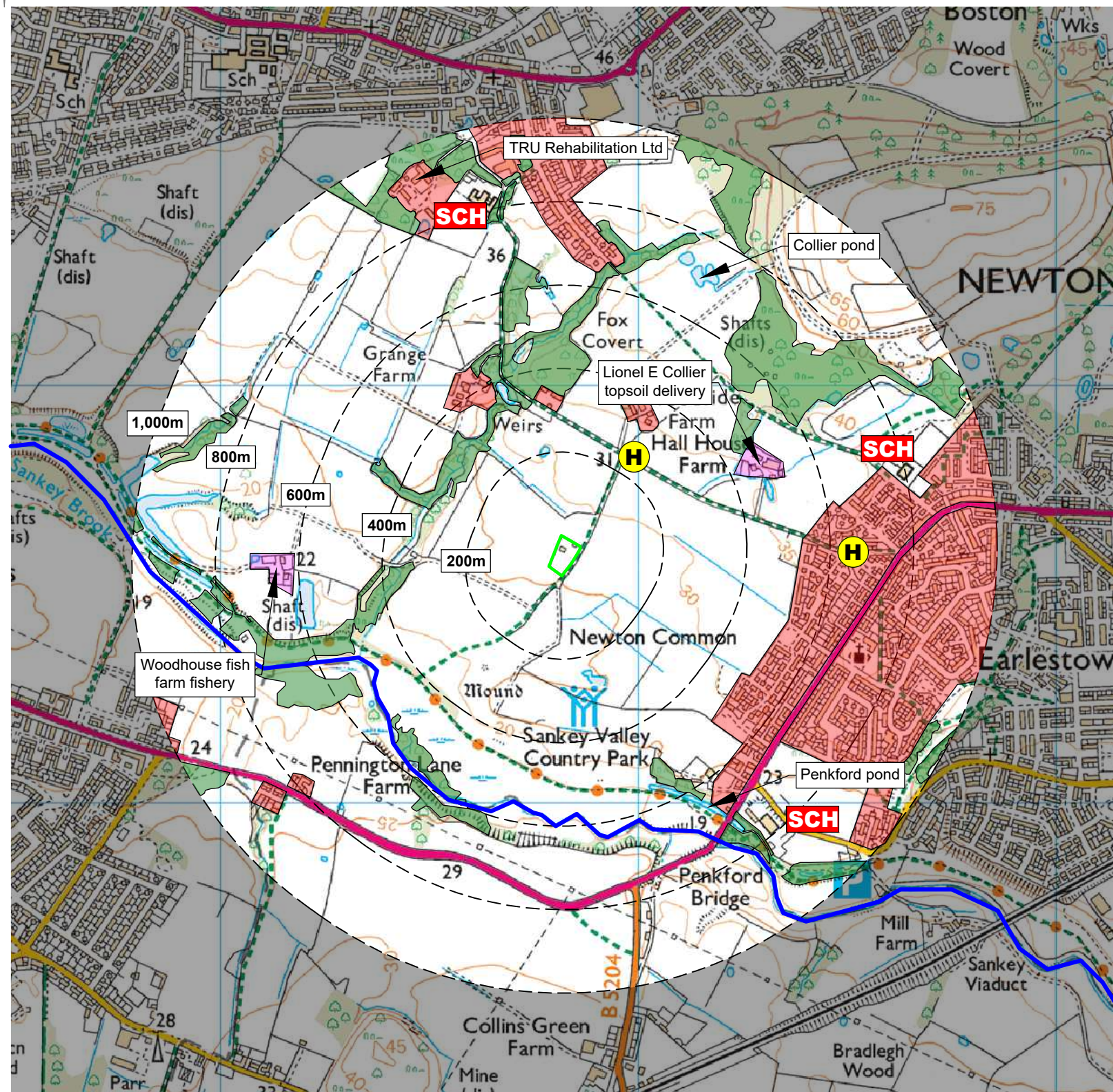
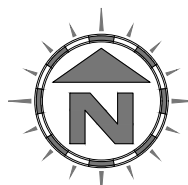
**DRAWING NUMBER** SWAN/3345/03      **REV** -      **STATUS** Issued

**DRAWN BY** CP      **CHECKED** -      **DATE** 29.02.24

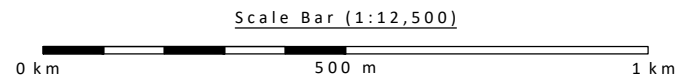
Lime House, Road Two, Winsford, Cheshire, CW7 3QZ  
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

**KEY:**

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- H Nearest fire hydrant
- Railway line
- SCH School
- Woodland areas
- Priority habitat inventory (deciduous woodland)



Compass Wind Rose for (EGGP) Liverpool  
Period 1990-2023  
- source: Iowa State University



**NOTES**

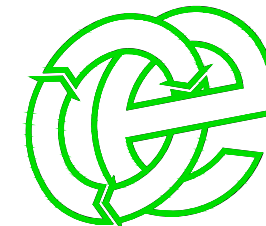
1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

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**REVISION HISTORY**

Rev:	Date:	Init:	Description:
-	29.02.24	CP	Initial drawing

**Oaktree Environmental Ltd**  
Waste, Planning and Environmental Consultants



**DRAWING TITLE**  
RECEPTOR PLAN

**CLIENT**  
Gings Ltd

**PROJECT/SITE**  
Old Swan Road, Newton-le-Willows, Merseyside  
WA12 9YU

<b>SCALE @ A3</b> 1:12,500	<b>CLIENT NO</b> 3345	<b>JOB NO</b> 003
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<b>DRAWING NUMBER</b> SWAN/3345/04	<b>REV</b> -	<b>STATUS</b> Issued
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<b>DRAWN BY</b> CP	<b>CHECKED</b> --	<b>DATE</b> 29.02.24
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t: 01606 558833 | e: sales@oaktree-environmental.co.uk