SHARPS REDMORE

ACOUSTIC CONSULTANTS • Established 1990

Brockley Wood, Belstead

Proposed Quarry

Assessment of Sound Levels

Prepared by
Gary King MIOA MCIEH

Date 22 September 2022

Project No 2120502

Head Office
Sharps Redmore
The White House, London Road,
Copdock, Ipswich, IP8 3JH
T 01473 730073
E contact@sharpsredmore.co.uk
W sharpsredmore.co.uk

Regional Locations
South England (Head Office),
North England, Wales, Scotland

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1.0 Introduction

1.1 Sharps Redmore (SR) have been instructed by Brockley Wood Ventures Ltd to prepare an environmental noise assessment to accompany a planning application for a quarry to extract sand and gravel with associated processing operations at Brockley Wood, Belstead, Suffolk.

1.2 This Technical Report considers the potential impact of sound emissions during extraction and restoration on existing residential properties in the vicinity. A description of the area, including the identification of noise sensitive receptors (NSR's) is included in Section 4.0 of this report.

1.3 The assessment uses SoundPLAN computer modelling software to predict noise levels during site operations including the processing plant. The assumptions made and noise source data used are provided in Section 6.0 of this report.

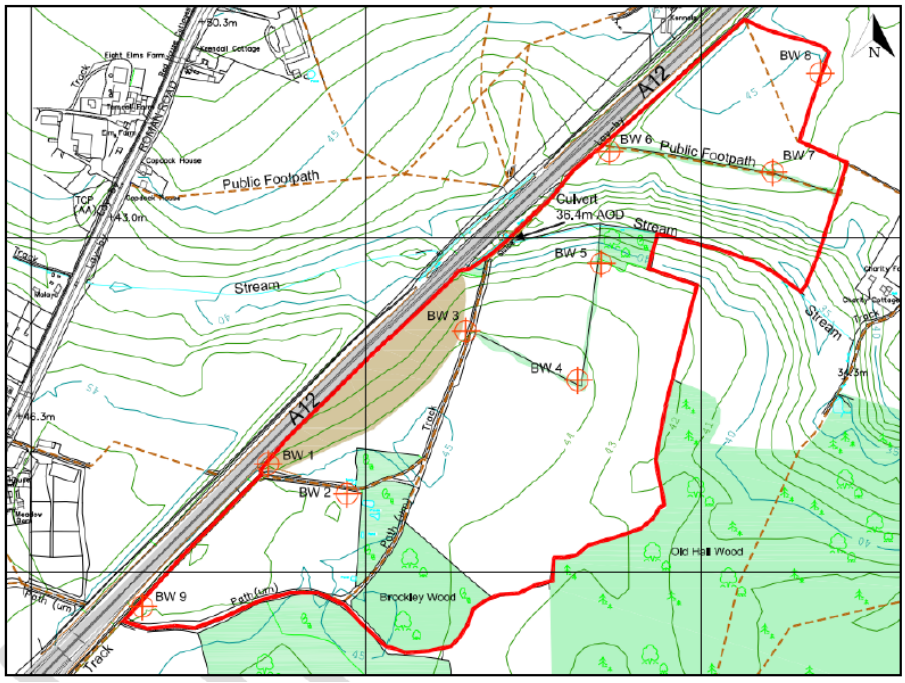
1.4 This Technical Report is presented as an Appendix to the Environmental Statement and is structured as follows:

- Section 2.0 – The proposed development;
- Section 3.0 – Planning policy and noise guidance;
- Section 4.0 – Description of area and Baseline noise survey;
- Section 5.0 – Limit Values;
- Section 6.0 – Sound Level Prediction Methodology;
- Section 7.0 – Sound Level Predictions and Assessment;
- Section 8.0 – Conclusions and Recommendations

2.0 The Proposed Development

2.1 A full description of the proposed prior extraction works is provided within other planning documents and it is not considered necessary to provide a detailed site description here. The site currently comprises multiple agricultural fields and areas of woodland to the South of the A12. The site location is shown below:

Site Location



2.2 The site covers an area of approximately 35 Ha adjoining the A12, which runs from the south west to the north east. The site is allocated in the Suffolk Minerals and Waste Local Pan 2020 under Policy MS3.

2.3 SR understands that the site will be operated on a campaign basis, which will include the following on-site operations:

- Phased excavation, bunding and stockpiling of materials;
- Phased restoration of site to existing site levels using overburden and recovered inert materials;
- Washing, grading and temporary storage of excavated materials;
- Screening, washing, sorting and temporary storage of inert waste materials of restoration or recycling;
- Concrete batching; and
- Site office

2.4 Vehicles will enter and leave the site using a new dedicated two-way access road, which will run parallel to the A12 linking the site with the A12 J38A slip road roundabout.

2.5 The assessment is based on the layout and phasing plan as shown in Appendix A.

3.0 Minerals Planning Policy

National Policy

3.1 The current planning policies of the Government are the National Planning Policy Framework (NPPF) June 2021[1], supported by the on-line Planning Practice Guidance[2] from 2014 and as amended.

3.2 Section 17 of the NPPF relates to the sustainable use of minerals and specifically in relation to noise paragraph 2.10 states that planning policies should:

f) set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality; and

g) when developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction…

3.3 Policy 211, states more fully:

When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy. In considering proposals for mineral extraction, minerals planning authorities should:

c) ensure that any unavoidable noise… emissions are controlled mitigated or removed at source[72], and establish appropriate noise limits for extraction in proximity to noise sensitive properties…"

(The reference[72] is to the national planning guidance on minerals)

3.4 The national planning guidance (www.gov.uk/guidance/minerals) provides advice on the assessment of environmental impacts from minerals extraction and such advice on noise seems unlikely to change materially. Paragraphs 019 to 022 are relevant and maintain the bases of sound level limit values from the original 1993 minerals planning guidance[3]

3.5 In summary the PPG advice is as follows:

- Paragraph 019: (How should minerals operators seek to control noise emissions)
  - Carry out a noise impact assessment
  - Identify the sources, their emissions and characteristics
  - Take account of proposed operating locations, procedures and operational durations
  - Consider the location of noise-sensitive receptors
  - Assess the pre-existing acoustic environment, including background levels
  - Estimate the likely future development noise and its impact
  - Identify proposals to minimise, mitigate or remove noise emissions at source
  - Check compliance by monitoring
    [Ref ID: 27-019-20140306. 6th March 2014]

[1] MHCLG. July 2018. National Planning Policy Framework. (NPPF)
[2] DCLG. On-line Planning Practice Guidance. (PPG) (Section 27)
[3] DOE. Minerals Planning Guidance. MPG11: 1993

- Paragraph 020: (How should planning authorities determine the noise impact)
    - Consider whether or not the proposed operations would give rise to a *significant adverse* or *adverse* effect or enable a good standard of amenity to be achieved
    - Consult the NPSE and the guidance therein on observed effect levels
      [Ref ID: 27-020-20140306. 6th March 2014]
- Paragraph 021: (What are the appropriate noise standards for mineral operators for normal operations)
    - Aim to establish a noise limit that does not exceed the background level by more than 10 dB during normal working hours, subject to a ceiling of 55 dB ($L_{Aeq,1hr,free\text{-}field}$) at noise sensitive property
    - But if a '10 dB above background' limit would impose an unreasonable burden to achieve, set a limit as near to that as practicable
      [Ref ID: 27-021-20140306. 6th March 2014]
- Paragraph 022: (…particularly noisy short-term activities and … noise limits …)
    - Consider 70 dB $L_{Aeq,1hr,free\text{-}field}$ as an increased daytime limit for up to 8 weeks in a year for essential site preparation and restoration works
    - Consider a lower or higher temporary limit if the essential works are of potentially longer or shorter duration (compared to 8 weeks/year) respectively.

      [Ref ID: 27-022-20140306. 6th March 2014]

3.6 The Application for the extraction of sand and gravel seeks daytime-only working hours

Regional Policy

3.7 With regard to regional policy regard is had to the Suffolk Minerals and Waste Local Plan which contains planning polices for determining planning applications for minerals and waste development. In terms of noise Policy GP4: 'General environmental criteria' states:

"Minerals and waste development will be acceptable so long as the proposals adequately assess (and address where applicable any potential significant adverse impacts including cumulative impacts) on the following:

…

j) noise and vibration"

3.8 Policy MS3 specifically relates to the site and states

"Development will be acceptable so long as the proposals adequately address the following:

….

g) the provision of measures to mitigate noise;"

Design Guidance

3.9 An EIA Scoping response has been received by Suffolk County Council. In terms of noise it has been confirmed that a noise assessment will be required to be submitted which considers the following:

1) Establishes the existing baseline noise levels at the nearest noise sensitive receptors during the proposed site operating hours. A noise survey must establish the typical lowest background noise levels measures at the receptors (including any proposed night-time or weekend operating periods). These must include, but not limited to:

2) Assesses the predicted future noise due to any proposed:

a) Fixed plant;

b) Mobile plant

c) Extra vehicular movements (on and on the local road network) associated with any proposed additional activities on site or associated with changed vehicular routes on site.

3) Compares the predicted cumulative operating levels from proposed operations against the background noise levels and other appropriate criteria.

3.10 Further guidance is provided on appropriate noise criteria and it is advised that a favourable assessment will show that the background noise level when assessed using BS 4142:2014 methodology. Reference is also made to the NPPF planning guidance relating to waste and mineral sites which suggests that an operational noise level (L_{Aeq}) no more than 10 dB above measured background noise level may be considered acceptable with an upper daytime (0700 to 1900 hours) noise limit from operations of 55 dB(A) $L_{Aeq1hr.}$

3.11 In pre-application discussions with Suffolk County Council comments have been received from their acoustic consultants, Sound Research Laboratory (SRL) recommended that vibration should be considered as part of the assessment. It is recommended that no vibration should be transmitted through to sensitive premises as to cause a vibration dose value of greater than 0.4 m/s (1.75) 16hour day time as defined in BS 6472:2008 in any part of a residential or other noise sensitive property.

4.0 The Local Environment

4.1 As described in Section 2.0 of this report the site is mainly arable farmland located within Belstead Parish in the County of Suffolk. The site is parallel with the A12 which runs along the western boundary of the site, beyond which are the villages of Copdock, approximately 1km to the North-west and Capel St Mary approximately 2km to the South-west. Belstead village is situated approximately 1km to the North-east.

4.2 The site is accessed via an existing agricultural entrance located on the southbound slip road for Junction 32B of the A12. There are no noise sensitive properties in the near vicinity of the site access.

4.3 The closest noise sensitive receptors are to Bentley Old Hall to the South-east, Charity Farm and Crope Hall to the North-east and various scattered properties along Old London Road, on the opposite side of the A12. The receptor locations are shown below:

Noise Sensitive Receptors

TABLE 1: Noise Sensitive Receptor Locations

Reference	Location
NSR1	Tudor House, Old London Road, Copdock
NSR2	Red House, Old London Road, Copdock
NSR3	Hare Cottage, Copdock, IP8 3JS
NSR4	Crope Hall, Charity Lane, Belstead
NSR5	Charity Farm, Charity Lane, Belstead
NSR6	Bentley Old Hall, Old Hall Lane, Bentley

4.4 The first stage of any assessment is to determine existing baseline sound levels against which the development can be assessed. The particularly relevant aspect of the sound climate is the background sound level. This quantifies the underlying level typically influenced by distant road traffic. The background sound level is written $L_{A90,T}$ being an abbreviation for the Sound **L**evel, in dB**A**, that is exceeded for **90%** of the specified **T**ime. It is a statistical quantity given by sound level meters. In practical terms, the $L_{A90,T}$ is the quieter 10% of the measurement sample.

4.5 Baseline sound level monitoring has been performed by Sharps Redmore at each of the noise sensitive receptors (NSR's) identified above. Attended measurements were carried out on various days to determine the representative ambient and background level at each location. Details of the monitoring locations are shown below:

Baseline Sound Level Monitoring Locations

TABLE 2: Baseline Sound Level Monitoring Location

Reference	Location
NL1	Adjacent to Old London Road, directly outside Tudor House, Old London Road, Copdock (NSR1)
NL2	Set back from Old London Road approx. 30m. Location representative of Red Cottage (NSR2)
NL3	On footpath adjacent to Hare Cottage, Copdock (NSR3)
NL4	On footpath adjacent to Charity Farm. Location considered representative of NSR4 and NSR5
NL5	On footpath adjacent to Bentley Old Hall (NSR6)

4.6 Measurement were recorded using a Norsonic type 1 sound level meter which was calibrated before and after each survey. The sound level measurements were recorded with the meter on a tri-pod approximately 1.5m above ground level in free-field conditions.

4.7 The result of the baseline sound survey and site observations are included in Table 3 below.

TABLE 3: Survey Results

Location	Level dB		Observations
	$L_{Aeq15min}$	$L_{A90,15min}$	
NL4	49 dB	47 dB	Measurements taken on 16 August 2021 between 1500 – 1600 hrs. Dry, sunny with a slight NW breeze.
NL5	47 dB	46 dB	
NL4	45 dB	43 dB	Measurements taken in 18 October between 1100 – 1300 hrs, dry, overcast with a slight SW breeze.
NL5	48 dB	41 dB	
NL1	67 dB	54 dB	Measurements taken 8 February 2022 between 1200 – 1300 hrs, cold, dry with westerly breeze
NL2	59 dB	56 dB	
NL3	60 dB	57 dB	
NL1	70 dB	54 dB	Measurements taken 11 February 2022 between 1100 – 1500 hrs, dry, cold sunny with light westerly breeze
NL2	54 dB	52 dB	
NL3	56 dB	52 dB	
NL4	47 dB	44 dB	
NL5	47 dB	44 dB	

4.8 At all locations background levels were dominated by road traffic noise on the A12 and therefore dependent on wind direction. At locations NL4 and NL5 the highest noise levels were measured when the wind was in a NW direction. During prevailing wind conditions (South West) noise levels at NL1 – NL3, background levels were in the mid 50's and locations NL4 and NL5 background levels were in the regions of 44 dB.

4.9 Following the pre-application comments from SCC a further survey was carried out at Bentley Hall (NL5) to measure noise levels during the early morning period (0700 – 0830 hrs). As shown in Table 4 below, there was no significant difference between measurements and there is no technical reason to restrict activity between 0700 and 0800 hours.

TABLE4: Survey Results NL5

Location	Level dB	
	$L_{Aeq15min}$	$L_{A90,15min}$
0700 – 0730 hrs	47 dB	40 dB
0730 – 0800 hrs	46 dB	39 dB
0800 – 0830 hrs	47 dB	40 dB

4.10 Section 4.0 of this report it was explained how the typical levels of background sound serve to inform limit values to noise from surface mineral workings. Sharps Redmore propose that limit values are determined in the context of typical background sound level as summarised in Table 5.

TABLE 5: Summary of Typical Background Sound Levels, at residential receptors

Reference	Location	Background Level dB
NSR1	Tudor House, Old London Road, Copdock	54 dB
NSR2	Red House, Old London Road, Copdock	52 dB
NSR3	Hare Cottage, Copdock, IP8 3JS	52 dB
NSR4	Crope Hall, Charity Lane, Belstead	44 dB
NSR5	Charity Farm, Charity Lane, Belstead	44 dB
NSR6	Bentley Old Hall, Old Hall Lane, Bentley	41 dB

5.0 Limit Values

5.1 Based on National and Regional guidance for noise standards and the typical background sound levels reported at Table 4 above, appropriate limits to site-attributable sound emissions would be as set out in Table 5

TABLE 5: Appropriate Sound Level Limits (Values are dB $L_{Aeq,1hr,free\text{-}field}$)

Location	Routine Workings	Temporary Workings
Tudor House, Old London Road, Copdock	55 dB (ceiling limit)	70 dB
Red House, Old London Road, Copdock	55 dB (ceiling limit)	70 dB
Hare Cottage, Copdock, IP8 3JS	55 dB (ceiling limit)	70 dB
Crope Hall, Charity Lane, Belstead	54 dB (44+10)	70 dB
Charity Farm, Charity Lane, Belstead	54 dB (44+10)	70 dB
Bentley Old Hall, Old Hall Lane, Bentley	51 dB (41+10)	70 dB

5.2 The default limit for temporary works would be 70 dB $L_{Aeq,1hr,free\text{-}field}$ for a total of 8 weeks in a rolling year. The 8 weeks in intended to be the accumulated time period of actual working.

Vibration

5.3 As advised in paragraph 3.11 above as part of pre-application discussions it has been advised by Suffolk County Council that the impact of vibration should be considered as part of the assessment. Due to the complex inter-relationship between the forces involved and ground conditions it is not possible to predict with any degree of accuracy the likely vibration levels from site operations. However, taking into account the ground conditions and the distance between the noise source and receptors it is not considered that vibration levels from the site will cause any impact on the noise sensitive receptors identified above. Therefore, a detailed assessment of vibration impact is not required. This has been discussed and agreed with SRL on behalf of SCC as part of the pre-application discussions. If considered necessary the vibration levels referred to within the pre-application discussions could be conditioned and monitored as part of the noise management plan.

6.0 Sound Level Prediction Methodology

6.1 To predict noise levels from the site operations Sharps Redmore has used the computer modelling software SoundPLAN to predict noise levels at the nearest sensitive properties. SoundPLAN calculates L_{AeqT} at defined receptors in accordance with the appropriate standards. The calculation is based on a number of input parameters including, source noise level data, receptor locations, topography and intervening ground conditions.

6.2 The location and dimensions of the physical elements of the model, such as site layout and phasing programme are based on site drawings including Figure 1. SoundPLAN calculates the noise level in accordance with ISO9613 and assumes a worst case scenario of downwind propagation in the direction of all receptors.

6.3 Source input values for the calculations are based on measurement performed by Sharps Redmore at a variety of quarry/waste/recycling sites across the UK and from library data. The values are termed 'apparent sound power level', with the notation $L_{WA'}$. (Sound power **L**evel, referenced to 1 pico**W**att of acoustic energy, in dB**A**, that is apparent for site measurement

TABLE 6: Sound Sources and Sound Emission values

Plants Items	$L_{WA'}$
Bulldozer	110 dB
Tracked Excavator	108 dB
Articulated Dump Truck (ADT)	103 dB
ADT Tipping	103 dB
Loading Shovel	108 dB
Lorry, (8-wheeler, tipper)	106 dB
Plant area	
Concrete Plant	105 dB
Crusher	115 dB
Screen	110 dB
Wash Plant – Final Wash Deck	108 dB
Wash Plant – Primary Wash Deck	108 dB
Wash Plant – Secondary Wash Deck	97 dB

6.4 For most items of plant, the sound output would be notionally steady continuous and at a fixed position. (For example, an excavator at the working face). Such sources are treated as point sources. Mobile sources (dump trucks and tipper lorries) can be treated as point sources provided appropriate account is taken of the mean (acoustic) distance and on-time. Otherwise, mobile plant movements along a defined haul road segment can be modelled as line sources.

6.5 Section 7 of this report sets out the results of sound level predictions and their assessment. For clarity, the working method modelled for likely sound emissions is summarised below:

- Phase 1A - Haul road construction – Overall L_{WA} of 113 dB
- Tipper lorries on Haul road – 12 movements per hour
- Phase 1 B - Interim plant area – Half bowl excavated, crushing and screening plant at existing ground level, wash plant etc in bottom of bowl, as per interim plant layout drawing,

- Final plant area – As above but with all plant in the bottom of the completed bowl as per final plant layout drawing

Then for each of the areas/phases 1B, 2B, and 4 the following has been modelled.

- Stripping – 1 x Tracked excavator 70% on time, 1 x ADT 20% on time
- Backfilling – 1 x Bulldozer 20% on time, 1 x ADT 20% on time
- Stockpiling – 1x Bulldozer 20% on time, 1 x ADT 20% on time on the stockpile at 12m height, plus associated hauling ADTs for each area (but not together), 12 movements per hour

6.6 The sound emissions are modelled on operations taking place at the initial ground level, (for preparatory works) the 'stripped' level for routine excavations and at the restoration levels prior to final soils overlay. As workings progress, it is likely the plant would work at lower elevations at which points, sound would be more effectively attenuated by perimeter mounding. This situation has not been modelled. Accordingly, the sound levels predicted represent a least-shielded effect beyond the Application site boundary.

6.7 Phase 3 has not been considered as noise levels will be less than that predicted for the other phases due to the increased distance between the noise source and receptor locations.

6.8 Receptor points adopted are as identified in Table 1 these being the closest noise sensitive properties to the site.

7.0 Sound Level Predictions and Assessment

7.1 The following assessment considers the impact of noise during the initial construction phase (Phase 1A), operation of the plant area (Phase 1B) and operational noise of the remaining phases.

Construction of Haul Road – Phase 1A

7.2 The initial phase (Phase 1A) will be the construction of the haul road from the site access to the plant area. The predicted noise levels are from construction of the haul road are shown in Figure 1 and summarised in Table 7 below:

TABLE 7: Predicted Noise Levels L_{Aeq1hr} – Construction of Haul Road

Location	Predicted Noise Levels (L_{Aeq1hr})	Noise Limits
Tudor House, Old London Road, Copdock	40 dB	70 dB
Red House, Old London Road, Copdock	47 dB	70 dB
Hare Cottage, Copdock, IP8 3JS	34 dB	70 dB
Crope Hall, Charity Lane, Belstead	31 dB	70 dB
Charity Farm, Charity Lane, Belstead	33 dB	70 dB
Bentley Old Hall, Old Hall Lane, Bentley	35 dB	70 dB

7.3 Predicted noise levels at all locations will be significantly below the proposed noise limit for temporary workings and the impact will be considered negligible. To ensure a robust assessment SR has also considered a worst case scenario of construction work taking place at location closest to The Red House (NSR2) this being the closest residential property to the Haul Road. As shown in Figure 2 noise levels during this period will be 51 dB. This is still significantly below the suggested noise limits.

Operation of Plant area - Phase 1B

7.4 Phase 1B will see the construction of the plant area which will include the processing plant, as detailed in Table 6 above. The plant area will be constructed in phases with initial excavation of half of the area. For an interim period, the crushing and screening plant will be located at existing ground level with the wash plant located in the bottom of the bowl. The final layout will have all plant within the plant bowl. Predicted noise levels from the interim phase and final layout are shown in Figures 3 and 4 and summarised in Table 8 below:

TABLE 8: Predicted Noise Levels L_{Aeq1hr} – Plant area

Location	Predicted Noise Levels (L_{Aeq1hr}) – Interim Phase	Predicted Noise Levels (L_{Aeq1hr}) – Final Phase
Tudor House, Old London Road, Copdock	37 dB	37 dB
Red House, Old London Road, Copdock	44 dB	44 dB
Hare Cottage, Copdock, IP8 3JS	42 dB	41 dB
Crope Hall, Charity Lane, Belstead	39 dB	39 dB
Charity Farm, Charity Lane, Belstead	42 dB	41 dB
Bentley Old Hall, Old Hall Lane, Bentley	46 dB	46 dB

7.5 To determine the impact of operation of the plant area as advised in the scoping opinion received from Suffolk County Council an assessment has been carried out in accordance with BS 4142:2014+A1:2019. The standard provides a method for rating and assessing industrial and commercial sound according to the following summary process:

i) Carry out a numerical assessment of the noise, taking into the character and areas of uncertainty, by comparing the noise against the existing background noise level. The greater the difference between the two, the greater the impact.

ii) By considering the noise impact against the context in which it is placed. There are many contextual points to consider when considering an assessment of sound impact including the following:

7.5 Table 9 below compares the rating level (the predicted level from Table 9 plus a 3dB feature correction for impulsivity) to the measured background levels at each receptor. The assessment is based on the final layout with all plant located within the plant bowl.

TABLE 9: BS 4142 Assessment

Location	Specific Level L_{Aeq1hr}	Rating Level L_{Ar1hr}	Background Level L_{A90}	Difference	Assessment Level (subject to context)
NSR1	37 dB	40 dB	54 dB	-14dB	Low
NSR2	44 dB	46 dB	52 dB	-8dB	Low
NSR3	42 dB	45 dB	52 dB	-7dB	Low
NSR4	39 dB	42 dB	44 dB	-2dB	Low
NSR5	42 dB	45 dB	44 dB	-1dB	Low
NSR6	46 dB	49 dB	41 dB	+8dB	Adverse

7.6 With the exception of NSR 6 Bentley Old Hall, noise from plant area will be below the existing background level and the impact will be low compared subject to context. At Bentley Old Hall there is a potential adverse impact subject to context. In all cases significant adverse impacts, which is the test under the NPPF, will be avoided.

Uncertainty

7.7 Uncertainty has been taken account by using computer modelling software to predict noise levels at the receptor locations. The modelling assumes downwind conditions in all cases and therefore is a robust assessment method. Background levels have been measured over several days and during various weather conditions. The background noise levels used are the lowest measured noise levels. In relation to NSR6 the background level used was measured when wind was in a SW direction, background levels measured during a NW (downwind conditions) were 5dB higher. In this case the difference between the rating level and background level would be +3 dB, the assessment level however would remain the same as adverse subject to context.

Contextual considerations

7.8 The final stage of the assessment is to consider the context of the site and noise. In relation to the site the main consideration is the plant area will operate as part of a mineral site, and therefore regard should be made to how the noise compares to the guidance in Paragraph 021 of the Planning Practice Guidance i.e. not to exceed the background level by more than 10dB, subject to a ceiling of 55 dB ($L_{Aeq,1hr,free\text{-}field}$). This is considered below.

Overall operational Noise

7.9 Noise from overall site activity will include noise from excavation of each phase, operation of the plant area, movement of vehicles along the Haul Road and noise from stockpiling of material adjacent to the plant area. The results for Phases 1B, 2A and 4 are shown in Figures 5,6 and 7 and summarised in Table 10. The assessment shows typical noise levels during working out each phase.

7.10 As advised in section 6.0 the sound emissions are modelled on operations taking place at the initial ground level, (for preparatory works) the 'stripped' level for routine excavations. As workings progress, it is likely the plant would work at lower elevations at which points, sound would be more effectively attenuated by perimeter mounding. This situation has not been modelled. Accordingly, the sound levels predicted represent a least-shielded effect beyond the Application site boundary.

TABLE 10: Overall Site Sound Levels (L_{Aeq1hr})

Location	Phase 1B	Phase 2A	Phase 4	Noise Limits
NSR1	41 dB	43 dB	43 dB	55 dB (ceiling limit)
NSR2	47 dB	48 dB	47 dB	55 dB (ceiling limit)
NSR3	43 dB	43 dB	48 dB	55 dB (ceiling limit)
NSR4	40 dB	40 dB	42 dB	54 dB
NSR5	44 dB	44 dB	46 dB	54 dB
NSR6	48 dB	48 dB	48 dB	51 dB

7.11 In all cases overall noise levels (including noise from plant area) from the site will be below the suggested noise limits as shown in Table 5. Phase 3 has not been considered as noise levels will be less than that predicted for the other phases due to the increased distance between the noise source and receptor locations.

Summary of Site Operations

7.12 The expectation is that reasonable sound level limit values, as informed by National and Regional guidance, would be achieved during the proposed workings. Although noise from the operation of the plant area will be above the background level, when considered in context of a mineral operation the impact will be low.

8.0 Conclusions and Recommendation

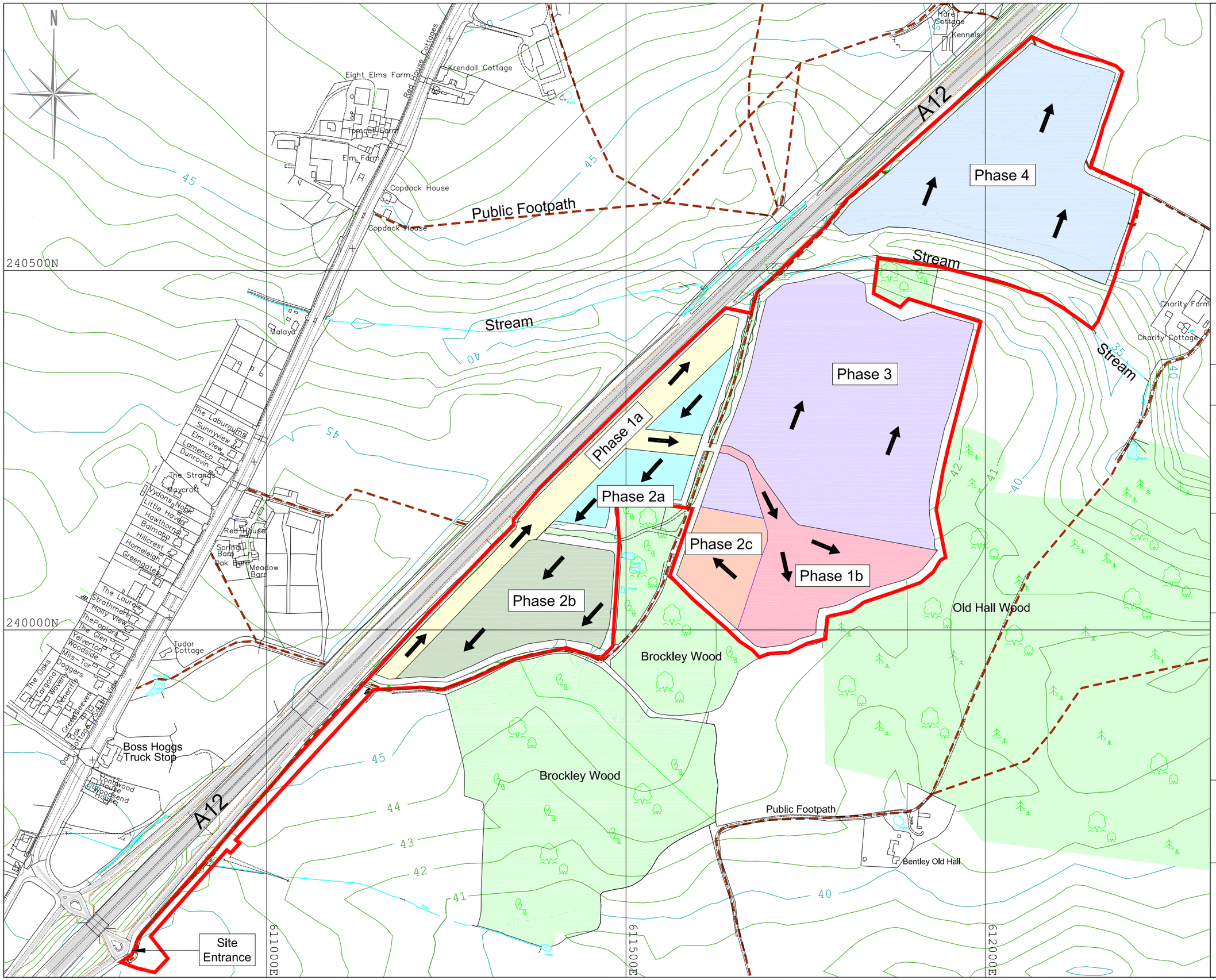
8.1 In the context of National Guidance and the policy aims of the Suffolk Minerals and Waste Local Plan this assessment concludes that the working and restoration of the Application site is not expected to give rise to a significant adverse impact.

8.2 The following mitigation measures are proposed:

- Plant (and haul roads) to be maintained in good order and operated in a manner conducive to not generating unnecessary noise.
- Reversing alarm sounders on site-based mobile plant to be of the non-tonal type, unless otherwise dictated by health & safety considerations.
- A noise management plan should be submitted which will include details of measures that will be implemented to control noise which will include the periodic monitoring of sound levels from the site.

Appendix A

Phasing Plan



Key

- Application Area (35.4ha)
- Woodland
- Public Rights of Way
- Phase 1a
- Phase 1b
- Phase 2a
- Phase 2b
- Phase 2c
- Phase 3
- Phase 4
- Direction of Working

Scale

0m 100m 200m

Scale:	1:5000 @A3
Date:	20/01/2021
Project No:	NWA/BWB/100
File:	BRKW21 Simple Phase Scheme v3.dwg
Drawn by:	ISC

Site

Brockley Wood, Belstead

Project

Proposed Quarry Develeopment

Plan

Phasing Scheme Master Plan

Brockley Wood Ventures Ltd

Greenfield enviro
1 Commercial Road, Keyworth, Nottingham NG12 5JS
Email: admin@greenfieldenviro.co.uk
Tel: 0115 937 2002

Appendix B

Suffolk County Council – Scoping Opinion

Appendix A

Suffolk County Council Noise

Noise assessment requirement

For clarification, the applicant will need to submit a noise assessment that:

1) Establishes the existing baseline noise levels at the nearest noise sensitive receptors during the proposed site operating hours (and any other hours that any new plant would likely run). A noise survey must establish the typical lowest background noise levels measured at the receptors (including any proposed night-time or weekend operating periods). These must include, but not limited to:

2) Assesses the predicted future noise levels due to any proposed:
    a) Fixed plant.
    b) Mobile plant.
    c) Extra vehicular movements (on site and on the local road network) associated with any proposed additional activities on site or associated with changed vehicular routes on site.

3) Compares predicted cumulative operating levels from proposed operations against the background noise levels and other appropriate criteria.

Appropriate noise criteria

A favourable assessment will show that the cumulative rating noise level from associated plant and onsite activities does not exceed the background noise level when assessed using BS4142:2014 methodology. This must consider the tonal and impulsive elements of activities at the site. Also note that NPPF planning guidance relating to waste and minerals sites suggests that an operational noise level (LAeq) no more than 10 dB above the measured background noise level may be considered acceptable with an upper daytime (0700 to 1900 hours) noise limit from operations of 55dB(A) LAeq,1h.

Appendix B

Suffolk County Council – Pre-application advice

Our Ref: SCC/0029/21B/PreApp
Date: 02 August 2022
Enquiries to: Andy Rutter
Tel: 01473 263766
Email: andrew.rutter@suffolk.gov.uk

Suffolk County Council

Neil Ward
NWA Planning
Globe House
4 St Georges Street
Ipswich
Suffolk
IP1 3LH

Dear Neil,

Application No: SCC/0029/21B/PreApp.

Proposal: Pre-application – New quarry (SMWLP MS3 allocation).

Location: New Belstead Quarry, Brockley Wood, Belstead.

Thank your pre-application enquiry. Suffolk County Council as Minerals Planning Authority encourages pre-application discussions so that future expectations can be managed and to ensure the information provided in support of the planning application is adequate.

These comments are internal officer comments made without prejudice to the determination of any future planning application. They have been made on the basis of the following submitted information:

Technical Documents:

- Environmental Statement, Geology by Greenfield Environmental LTD;
- Environmental Statement, Soils by Greenfield Environmental LTD;
- Environmental Statement, Public Rights of Way by NWA Planning LTD
- Planning Statement by NWA Planning dated May 2022;
- Groundwater & Surface Water Assessment by Greenfield Enviro dated March 2022;
- Transport Assessment MA/VL/P21-2349/02 Rev B by Create Consulting Engineers LTD dated September 2021;
- Landscape and Visual Impact Assessment by Wynne Williams Associates dated February 2022;
- Archaeology Desk Based Assessment SU0283_1 by Cotswold Archaeology dated October 2021;
- Geological Report and Resources Assessment by Greenfield Enviro dated February 2022;
- Phase 1 Contaminated Land Assessment Rev A Volume 6 by Create Consulting Engineers LTD;
- Geotechnical Certification in relation to slope stability near the Highways England boundary BWV/BW/002 Rev 0 by Greenfield Enviro dated November 2021;
- Agricultural Soil Classification & Proposed Soils Management Scheme;
- Listed Buildings Settings Assessment by Cotswold Archaeology SU0283_2 dated October 2021;
- Noise Assessment 2120502 by Sharps Redmore dated 23 February 2022;
- Air Quality Impact Assessment 4730r1 by Redmore Environmental dated 17 March 2022;
- Arboricultural Impact Assessment OAS 22-031-AR01 by Oakfield dated February 2022;
- Lighting Impact Assessment by MMA Lighting Consultancy dated 9 March 2022;
- Outdoor Lighting Report by MMA Lighting Consultancy dated 9 March 2022;

- Phase 1 Contaminated Land Assessment Volume 1 TB/VL/P21-2349/01 Rev A by Create Consulting Engineers LTD dated July 2021;
- Phase 1 Contaminated Land Assessment Volume 2 by Create Consulting Engineers LTD;
- Phase 1 Contaminated Land Assessment Volume 3 by Create Consulting Engineers LTD;
- Phase 1 Contaminated Land Assessment Volume 4 by Create Consulting Engineers LTD;
- Phase 1 Contaminated Land Assessment Volume 5 by Create Consulting Engineers LTD;
- Ecology Assessment by Hopkins Ecology dated 22 May 2022.

Plans & Drawings:

- Proposed Plant Site Layout Interim by Greenfield Envio dated 11 January 2022;
- Plant Site Layout Schematic Cross Sections by Greenfield Enviro dated 6 January 2022;
- Proposed Plant Site Layout Final by Greenfield Enviro dated 6 January 2022;
- Plant Site Layout Schematic Cross Sections by Greenfield Enviro dated 7 January 2022;
- Private Lighting Design Sheet 1 of 1 MMS16828/001 by MMA Lighting Consultancy dated 9 March 2022;
- Proposed Footpath Strategy Plan by Greenfield Enviro dated 11 March 2022;
- Site Plan by Greenfield Enviro dated 20 January 2022;
- Phasing Scheme Master Plan by Greenfield Enviro dated 20 January 2021;
- Draft Restoration Contours Plan by Greenfield Enviro dated 4 February 2022;
- Proposed Restoration Scheme Cross Sections Plan by Greenfield Enviro dated 21 February 2022;
- Geological Report BW12 A12 Boundary Cross Sections Plan by Greenfield Enviro dated 9 November 2021;
- Indicative Vehicle Access Site Layout Plan 033/2021/05 P2 by GHBullard & Associates LLP dated May 2021;
- Indicative Vehicle Access Site Layout Plan 033/2021/05 P3 by GHBullard & Associates LLP dated May 2021;
- Indicative Vehicle Access Site Layout Sheet 1 of 3 0033/2021/06 P1 by GHBullard & Associates LLP dated February 2022;
- Indicative Vehicle Access Site Plan Layout Sheet 2 of 3 033/2021/07 P1 by GHBullard & Associates LLP dated February 2022;
- Indicative Vehicle Access Site Plan Layout Sheet 3 of 3 033/2021/08 P1 by GHBullard & Associates LLP dated February 2022;
- Access Road Longitudinal Section Road 1 (1/3) 033/2021/09 P1 by GHBullard & Associates LLP dated February 2022.
- Access Road Longitudinal Section Road 1 (2/3) 033/2021/10 P1 by GHBullard & Associates LLP dated February 2022.
- Access Road Longitudinal Section Road 1 (3/3) Road 2 & Road 3 033/2021/11 P1 by GHBullard & Associates LLP dated February 2022.
- Indicative Drainage Construction Details 033/2021/12 P1 by GHBullard & Associates LLP dated February 2022;
- Indicative Access Road Construction Details 033/2021/13 P1 by GHBullard & Associates LLP dated February 2022.
- Landscape Restoration Plan 2133-WWA-XX-XX-DR-L-0101 S1 P02 by Wynne Williams Associates dated 28 February 2022;

Supplementary Information

- M Series integrated washing solutions brochure;
- R Series primary feeding system brochure;
- Aquacycle Primary Stage Waste Management brochure;
- Evowash Sand Classification and Dewatering System brochure;
- Aggmax Scrubbing and Classification System brochure;
- Liebheerr Concrete Batching Plant Plan;
- Doppstadt SM Series Trommel Line brochure;
- Powerscreen Screening Range brochure;
- Terex Finlay C-1554 Crusher brochure;
- Wheelwash Ecowash Extra brochure;

The consultee responses can be found as appendices to this document:

- Appendix 1 SCC Highways;
- Appendix 2 SCC Landscape;
- Appendix 3 SCC Floods;
- Appendix 4 SCC Noise;
- Appendix 5 SCC Air Quality;
- Appendix 6 SCC Ecology;
- Appendix 7 SCC Archaeology; and
- Appendix 8 SCC Public Rights of Way.

General Comments

The proposal must be considered against the National Planning Policy Framework, Suffolk Minerals & Waste Local Plan, Adopted Version July 2020 along with the Babergh Core Strategy February 2014 and Babergh Local Plan 2006.

These works may also require an Environmental Permit from the Environment Agency.

I particularly draw your attention to the following policies (although it should not necessarily be limited to these policies only). These paragraphs and policies must be addressed in full within any forthcoming planning application.

National Planning Policy Framework July 2021 (NPPF)

- Paragraph 8 (a) an economic objective.
- Paragraph 8 (b) a social objective.
- Paragraph 8 (c) an environmental objective.
- Paragraph 11 the presumption in favour of sustainable development.
- Paragraph 104 promoting sustainable transport.
- Paragraph 110 considering development proposals.
- Paragraph 120 (a) making effective use of land.
- Paragraph 163 planning and flood risk.
- Paragraph 164 planning and flood risk.
- Paragraph 166 planning and flood risk.
- Paragraph 167 planning and flood risk.
- Paragraph 169 planning and flood risk.
- Paragraph 172 coastal change.
- Paragraph 174 conserving and enhancing the natural environment.
- Paragraph 176 conserving and enhancing the natural environment.
- Paragraph 177 conserving and enhancing the natural environment.
- Paragraph 178 conserving and enhancing the natural environment.
- Paragraph 180 habitats and biodiversity.
- Paragraph 181 habitats and biodiversity.
- Paragraph 194 proposals affecting heritage assets.
- Paragraph 197 conserving and enhancing the historic environment.
- Paragraph 211 facilitating the sustainable use of minerals.

Suffolk Minerals and Waste Local Plan Adopted Version July 2020 (SMWLP)

- Policy GP1 Presumption in favour of sustainable development;
- Policy GP2 Climate change mitigation and adaptation;
- Policy GP3 Spatial Strategy;
- Policy GP4 General environment criteria;
- Policy MP1 Provision of land won sand and gravel;
- Policy MP6 Progressive working and restoration;
- Policy MP7 Aftercare;
- Policy MP8 Concrete batching plants and asphalt plants;
- Policy WP3 Existing or designated land-uses potentially suitable for waste development;
- Policy WP8 Proposals for recycling or transfer of inert and construction, demolition and excavation waste; and

- Policy WP11 Approval of sites for disposal of inert waste by landfilling or landraise.
- Policy MS3 Belstead.

Babergh Core Strategy February 2014

- Policy CS1 Applying the presumption in favour of sustainable development.
- Policy CS15 Implementing sustainable development in Babergh.

Babergh Local Plan 2006

- Policy CR07 Landscaping Schemes.
- Policy CR08 Hedgerows.

Babergh Mid Suffolk Joint Local Plan

The joint Babergh and Mid Suffolk Local Plan was submitted to the Planning Inspectorate for examination in 2021.

The most up to date information and progress can be found here: https://www.babergh.gov.uk/planning/planning-policy/new-joint-local-plan/joint-local-plan-submission/joint-local-plan-examination/

Environmental Impact Assessment (EIA)

Suffolk County Council have already adopted a scoping opinion ref: SCC/0083/21B/Scoping.

http://suffolk.planning-register.co.uk/Planning/Display?applicationNumber=SCC%2F0083%2F21B%2FScoping

Planning Fee

The planning fee for this application is based upon the area of the site (Full Applications,Other operations (winning and working of minerals) excluding oil and natural gas with a site area of more than 15ha, £34,934 + an additional £138 for each 0.1ha in excess of 15ha up to a maximum of £78,000).

Taking into account the above planning fee calculation criteria, as the development is 35.8ha there is a base fee of £34,934, for the additional 15.8ha you must apply £138 for each 0.1ha, this leads to an additional £21,804.

For a site covering 35.8ha for the winning and working of minerals (excluding oil and natural gas) the planning fee would be £56,738.

You will appreciate that the comments set out in this letter, are given on a without prejudice basis, and do not place any limitation of Suffolk County Council to come a contrary view of the proposal, in the event, following submission of an application, that it considers that it is not acceptable or that information submitted with the application does not adequately demonstrate that the proposal is acceptable.

Yours sincerely,

Andy Rutter

Andy Rutter
Development Manager
Growth, Highways & Infrastructure

APPENDIX 1 – SUFFOLK COUNTY COUNCIL HIGHWAYS RESPONSE

SCC Highways

Whilst it is envisaged that this proposal will be generally acceptable to the Local Highway Authority (subject to some amendments and additional information), the following comments and requirements are made below:

Access

The amendment to the existing access point will effectively form an additional arm to the existing roundabout. The Local Highway Authority and National Highways were recently consulted on a similar proposal and had very similar requirements such as: Stage 1 RSA due to the accident record at the roundabout; geometric and visibility requirements in accordance with DMRB; Signage and road markings appropriate for arm/access and; measures to prevent right turns from the access.

The planning reference of the aforementioned proposal is: DC/21/05596.

Traffic Impact

Whilst we do not envisage an unacceptable impact, the submitted modelling and conclusions will be examined by SCC Transport Strategy specialists to confirm our acceptance. We will also await comments from National Highways on this element of the proposal.

Committed Development

Joint Local Plan allocation and current planning application DC/21/03954 (Capel Grove) is likely to impact upon the same junctions as this proposal, so should be considered in any cumulative impact assessment.

PROW

It is noted that the proposal will impact upon the PROW network and would anticipate that SCC PROW team will provide comments on this element of the proposal.

Parking

Parking provision should accord with Suffolk Guidance for Parking (2019). Secure, covered cycle storage and EV charging facilities can be shown on submitted plans or be subject to a planning condition.

Other

Construction and Delivery Management Plans will be required to ensure safe working, minimal disturbance to the existing communities and adverse impact on the public highway during the construction and operational phases.

The above informal advice is based on the information available at the time of the pre-application and does not bind Suffolk County Council on its response to any future planning applications.

APPENDIX 2 – SUFFOLK COUNTY COUNCIL LANDSCAPE RESPONSE

SCC Landscape

Based on the information provided by the applicant, I offer the following comments without prejudice to any further comments I or any other SCC Officer may wish to make at a later date in relation to an application for this site:

LVIA

LVIA Methodology:

- The LVIA Methodology is, in its current format, insufficient.
- As stated in GLVIA 3 the assessment of sensitivity is part of the assessment (both for landscape and visual assessments) and not part of the baseline study. There needs to be a clearer distinction between landscape value, susceptibility and resulting sensitivity.
- I would like to query the Key to Table 7 which explains that visual effects below substantial/moderate are not significant in terms of the EIA Regulations. I would be grateful, if it could be pointed out to me, where I can find evidence for this in the EIA Regulations, as often moderate effects would be considered significant. If a moderate effect is not considered significant, an explanation/professional judgment within the assessment text should be provided.

Landscape Baseline and Assessment

- There is a lack in detail with regards to the description of the local landscape character at and around the site, how it represents the wider landscape character assessments mentioned in the LVIA and how the proposals impact this character.
- References made to Appendix B (Methodology) within the assessment text do not always line up with the methodology (for example reference made in para. 6.1 to Appendix B Table 3 (Landscape) Receptors; Table 3 in Appendix B lists Table 3: Visual Receptor Sensitivity).
- The effects of the proposal on tranquillity have not been assessed.

Visual assessment

- Viewpoints: The viewpoint locations are acceptable.
- Photographs for visual assessments should be taken during months, when deciduous trees and shrubs are not in leaf.
- The viewpoint photographs would benefit from additional annotations.
- The visual assessments are too brief and do not provide sufficient information on how the views are likely to change.
- I cannot follow the professional judgements made in the assessment for many viewpoints that one, and even fifteen years after the completion of the restoration, there would be no visual change to the currently existing baseline.
- I do not follow the statement on every viewpoint assessment page that no mitigation is required. It would be helpful to describe here for each view how the restoration scheme addresses or helps to address the visual effects.

Mitigation

- I cannot follow the statements at the beginning of Chapter 8. Please explain how they link in with the assessments of visual effects.

Proposed tree and hedgerow removal

- The submitted AIA does provide a Tree Constraints Plan, but does not show which trees would need to be removed and which will be protected (Tree Protection Plan, will need to be submitted). The phasing plans are not a sufficient substitute. It is notable that most of

the trees on site are either Category A or Category B trees, with 40+ years life expectancy, some of historic value.

- The SMWLP states in Policy MS3 Belstead part b) that safeguarding of all woodlands and wooded tracks needs to be adequately addressed. The removal of field trees and hedges in good condition needs to be carefully assessed and is only acceptable, if all possible alternatives for access, phasing and adjustments to the workable area have been exhausted. The current proposals do not appear to adequately address the safeguarding of all wooded tracks and therefore not acceptable in landscape terms.
- An Arboricultural Method Statement will need to be provided.
- Where and to what extent (in meters) will hedgerows be lost? The provided plans are at a scale which makes it impossible to gauge the loss in vegetation.
- Has it been established that none of the hedgerows are important in terms of the Hedgerow Regulations 1997?
- What will happen to existing planting along the A12?

Other concerns with regards to the proposals

- What measures have been taken to make the stockpile of 12m height acceptable in landscape terms?
- Why is there a residual northern bund of 3m height?
- Lighting: The LVIA assesses substantial/moderate effects on Footpath 4 for the duration of construction and operation due to lighting. Greater efforts should be made to reduce the adverse effects resulting from lighting. Great care should be taken that light does not spill into the adjacent woodland areas. Please consult SCC Ecology for further advice on the adequacy of the provided lighting strategy.
- Landscape Restoration Scheme: I welcome the proposal of additional woodland. However, at this stage I am not convinced that this can compensate for the proposed loss of trees and hedges within the site. I would also query, why there is no additional planting proposed along the northern stretch of the A12.
- Greater efforts should be made to reduce the significant effects (including moderate effects) of the proposals during the operational phase - as in LVIA terms these would be considered to be long-term effects - in order to make the proposals acceptable in landscape terms.

I hope these preliminary comments are useful. I have made them without prejudice to any comments I or any other SCC Officer may wish to make at a later date in relation to an application for this site. Should you have any further queries in this matter at this stage, then please do not hesitate to contact me.

APPENDIX 3 – SUFFOLK COUNTY COUNCIL FLOODS RESPONSE

SCC Floods

The LLFA is generally happy with the proposals on this site, but the applicant will need to provide a site-specific flood risk assessment that ensures that it assess all type of flood risk:

- Fluvial
- Pluvial
- Groundwater
- Reservoir
- Foul

The applicant should review the county council preliminary flood risk assessment, the districts strategic flood risk assessment.

National Legislation/Codes

- National Planning Policy Framework
- National Planning Policy Guidance
- Defra's Non-Statutory Technical Standards for SuDS
- Building Regulations: Approved Document H - Drainage and Waste Disposal (2015 edition)
- BS8582:2013 Code of Practice for Surface Water Management for Development Sites

Local Policy

- Suffolk Flood Risk Management Strategy and Appendices
- Babergh District Council (CS12 Sustainable Design and Construction Standards & CS15 Implementing Sustainable Development in Babergh)

The proposal shall demonstrate that they:

- will not be increase the percentage of impermeable area
- can utilise the existing surface water drainage system or;
- they can design a surface water system in line with the national and local policy/guidance
- Ensure that they have sufficient surface water treatment stages prior to any discharge.

The applicant will need to supply a flood risk assessment and surface water drainage strategy with any applicant. The applicant will need to submit the documents in appendix A, Suffolk Surface Water Drainage (SuDs) Guidance, Standards & Information.

However, the LLFA main concerns are:

- The document refers to a out of date NPPF. This was latest updated in July 2021.
- Maintaining water quality and existing flows through the watercourses that run through the site.
    - Para 2.2.6 States that “The two easterly flowing streams that are present on the site both converge just to the east of Old Hall Wood (see Plan W22-4) where the stream then flows south-east into the Alton Reservoir approximately 2km from the site.” Therefore, If the watercourse flow into Alton Water, which is an Anglian Water asset for drinking water, Anglian Water should be consulted as they may have concerns re development within this area.
- Further understanding is required regarding the A12 watercourse sluice i.e., ownership, flow rate, maintenance etc.
- Ensuring any discharges into the watercourse are at Qbar for all events up to and including the 1:100+CC rainfall event.
- Ensuring that during phased return to existing ground levels, flood risk is not increased.
    - Invert soils need to have a similar infiltration rate as existing deposits.

Note: any works to the watercourse will require Land Drainage Act consent.

Apply for consent for works affecting ordinary watercourses | Suffolk County Council

APPENDIX 4 - SUFFOLK COUNTY COUNCIL NOISE RESPONSE

SCC Noise

The closest noise sensitive receptors are Bentley Old Hall to the South-east, Charity Farmand Crope Hall to the North-east, and various scattered properties along Old London Road on the opposite side of the A12.

Recommendations

Noise and vibration from the site operations are of material consideration in the submission of a full application for the site.

The initial NIA by Sharps Redmore, project No. 2120502 dated 21st February 2022, suggest the impact from noise should have a low impact on sensitive receptors except for Bentley Old Hall. We would support a full application with a sufficient noise assessment which shows appropriate mitigation measures to be implemented on site during site implementation and operation, paying close attention to the effects on Bentley Old Hall.

The submitted assessment has not taken into account vibration from site set up and operations including vehicle movements. Vibration will need to be considered in any full application which should also show a low impact on the local amenity.

No vibration should be transmitted through to sensitive premises as to cause a vibration dose value of greater than 0.4m/s (1.75) 16 hour day-time as defined by BS 6472 (2008) in any part of a residential and other noise sensitive property.

I recommend that any submitted application is supported by an operational management plan detailing how the site is to be operated. To ensure that the amenity of occupiers of surrounding premises are not adversely affected by noise and/or vibration from the site hours of work and all associated activities audible beyond the site boundary, we would suggest that site operations should be restricted to 0800-1800hrs Mondays to Fridays and 0800 -1300 hrs on Saturdays.

A full application must also be accompanied by a suitable acoustic assessment which states and assesses noise from plant and equipment in use at the site including noise from the haul roads. This is required to ensure appropriate noise levels are achieved at sensitive receptors with appropriate mitigation.

Noise generated from the site may be assessed using the methodology set out in the NPPF Minerals Policy Guidance.

We may look to impose noise limits at sensitive receptors once detailed operations are known in order to limit any noise effect on the local amenity during the operation of the site especially if future expansion may be considered.

APPENDIX 5 - SUFFOLK COUNTY COUNCIL AIR QUALITY RESPONSE

SCC Air Quality

In my previous response (13757T163-CO-YQ-01-S2-P1), I stated a Minerals Dust Risk Assessment was necessary, and traffic generation and construction dust should also be considered. Following this, the applicant has prepared an air quality assessment (11-P1946-4730r1 - Air Quality Environmental Impact Assessment - Brockley Wood, Belstead). I have reviewed this assessment and have the following comments.

Review

The methodology begins by addressing the comments in my previous consultation response. The assessment states:

"A review of the local area indicated that the closest sensitive receptor to the concrete batching plant is approximately 320m to the south-west at Bentley Old Hall. Based on the distance between the source and receptor and inclusion of the mitigation measures outlined in Section 5.0, the potential impact of fugitive dust emissions would be negligible in accordance with the Institute of Air Quality Management (IAQM) document 'Guidance on the Assessment of Dust from Demolition and Construction'. As such, impacts associated with fugitive dust emissions from the concrete batching plant are classified as not significant and further assessment was not considered necessary".

I agree that the impact of dust emissions is likely to be negligible, but when there is a receptor within 350m of the site, the reasoning should be evidence by an assessment in line with the IAQM's Guidance on the assessment of dust from demolition and construction.

The assessment clearly sets out the relevant assessment criteria in section 3.3.

The assessment notes the nearest AQMA to the site and reasonably concludes that the site will likely not affected the AQMA due to them being 28.4km apart.

Local authority NO2 monitoring data from monitoring sites in Sproughton are listed along with DEFRA NO2 and PM10 background data for 2022. The assessment doesn't, however, include PM2.5 data and doesn't use this data to comment on the likely pollutant concentrations at the site. Based on this data, it appears unlikely the air quality objective limits for NO2 and PM10 will be exceeded at the site, but the assessment would be more robust with this added detail.

The assessment includes an accurate description of site characteristics such as location and nature of dust sensitive receptors, and meteorological data from Wattisham Airfield including wind directions and their speed.

Section 5.0 sets out reasonable mitigation measures. These measures must always be followed to limit dust emissions. Additional mitigation measures would be beneficial.

Following the IAQM's Guidance on the Assessment of Mineral Dust Impacts for Planning, Table 17 categorises the residual source emissions of each activity, giving specific detail on each phase for "Site Preparation and Restoration". The table includes reasonable justification for each categorisation. The overall residual source emissions categorisation is shown to be medium.

Using the meteorological data from Wattisham Airfield, Table 18 identifies the frequency of potentially dust winds for each receptor. Each receptor's distance from source is also correctly categorised. These factors are then combined via the matrix in the IAQM's Guidance on the Assessment of Mineral Dust Impacts for Planning to categorise the pathway effectiveness for each receptor. Section 6.2.7 concludes "*the pathway effectiveness was determined to be highly effective at six receptors, moderately effective at three locations and ineffective at the remaining five positions".*

Residual source emissions and pathway effectiveness for each receptor are combined in Table 19 to identify dust impact risk. Section 6.2.9 correctly states *"the dust impact risk was determined as medium at six receptors, low at three locations and negligible at the remaining five positions".*

The dust impact risk and receptor sensitivity have been combined to determine the magnitude of the dust effect at each receptor. The assessment correctly concludes that the effects are likely to be negligible at all the receptors bar two, R5 and R6, where the effect is slight. It appears to be concluded that no further mitigation measures are necessary beyond those in section 5.0.

Nearby committed developments have been reviewed to assess the potential for cumulative air quality effects. The assessment has found that *"that a request for a formal EIA Scoping Opinion has been requested in relation to the Bury St Edmunds to Colchester Water Pipeline Scheme (ref: DC/21/06672). The proposal is adjacent to the northern boundary of the proposed site. As such, should the application be approved there is the potential for cumulative impacts at sensitive receptor locations as a result of fugitive dust emissions during the construction phase. However, any emissions from the pipeline scheme and the proposed mineral extraction site will be required to be controlled through relevant mitigation techniques. Therefore, residual impacts are predicted to be negligible and not significant".*

The conclusion that the cumulative effect is likely to be negligible with mitigation in place at both sites is reasonable, although if the dust effect at two receptors is slight due to dust from this site alone, it is likely that the effect won't be negligible from the cumulative effect of the two sites.

Regarding traffic generation, section 6.3.2 concludes *"the proposals are not anticipated to result an increase in traffic flow of more than 100 HDV movements or LDV flows of more than 500 AADT per day on any individual road link. Additionally, the scheme does not include significant highway realignment or the introduction of a junction. As such, potential air quality impacts associated with road vehicle exhaust emissions are predicted to be not significant".* The IAQM/EPUK's Land-Use Planning & Development Control: Planning for Air Quality, the guidance that is referred to, states the indicative criteria for requiring a detailed assessment include:

- *Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors: A change of LDV flows of more than 500 annual average daily traffic movements outside of an AQMA*
- *Cause a significant change in Heavy Duty Vehicle (HDV) flows on local roads with relevant receptors: A change of HDV flows of more than 100 annual average daily traffic movements outside of an AQMA.*

The assessment refers to these criteria per road, but the guidance refers to total development traffic generation. Section 6.3.1 states there will be 358 LDV movements per day and 184 HDV movements per day. The LDV traffic generation threshold will not be exceeded, but the HDV traffic generation threshold will be. Therefore, a detailed air quality assessment is necessary to assess the air quality impact of these additional HDVs at local receptors. This assessment should include dispersion modelling to quantitatively assess this impact and should consider the cumulative impact of traffic from nearby committed developments.

Conclusions

I agree that the impact of construction dust emissions is likely to be negligible, but when there is a receptor within 350m of the site, the reasoning should be evidenced by an assessment in line with the IAQM's Guidance on the assessment of dust from demolition and construction.

The assessment conclusions are acceptable. The assessment clearly follows the IAQM's Guidance on the Assessment of Mineral Dust Impacts for Planning. The dust risk assessment has determined that the magnitude of dust effects would be slight. It is concluded that dust impacts from the operation of the proposed development will likely be insignificant, even when cumulative effects are considered.

The LDV traffic generation threshold will not be exceeded, but the HDV traffic generation threshold will be. Therefore, a detailed air quality assessment is necessary to assess the air quality impact of these additional HDVs at local receptors. This assessment should include dispersion modelling to quantitatively assess this impact and should consider the cumulative impact of traffic from nearby committed developments.

APPENDIX 6 - SUFFOLK COUNTY COUNCIL ECOLOGY RESPONSE

SCC Ecology

Information submitted

The Ecology Assessment is appropriate for the proposal. The report included mitigation measures and precautionary methods of working that should be strictly adhered to during any operations at the site.

Likely ecological effects

The proposal will result in both the loss and fragmentation of a number of hedgerows at the site. This could potentially impact on a number of protected and priority species, including Bats, Dormouse, and bird species such as Yellowhammer and Dunnock (Suffolk Priority Species). Although the dormouse survey returned no records of dormice in the area, this should not be interpreted as a record of absence; there are records of dormice in the area and dormice are also difficult to survey for given their reclusive and nocturnal nature.

Mitigation measures

The mitigation measures stated do not sufficiently address the concerns of the Ecology Team with regards to the potential impacts on the protected/priority species referred to above.

Conclusion

From a biodiversity point of view, there are concerns about the potential impact on species such as Bats, Dormouse and numerous priority species birds (Yellowhammer, Dunnock, Song Thrush) resulting from this proposal.

Even though no Dormice were recorded during the surveys, the absence of records does not equate to a record of absence and there are recent records of this species nearby and there is the potential for Dormice to use the hedgerows for foraging, commuting and refuge. This is through the loss and fragmentation of habitat (hedgerows) as well as the loss of habitat and habitat connectivity resulting from the proposed removal of the hedgerows highlighted.

The mitigation hierarchy:

Avoid
Mitigate
Compensate,
Enhance

should be followed strictly and the Ecology Team would like to see evidence of how this habitat loss will be compensated for elsewhere on the site before any works take place. We would also like to see how the applicant would avoid potential harm to protected species via a mitigation strategy during the phase of works when these hedgerows will not be impacted.

The Ecology Team would be keen to see a full landscaping plan to see how the applicant proposes to compensate for the loss of these important hedgerows, and how the proposal would deliver an overall net gain for biodiversity at the site once all operations have been completed at the site.

APPENDIX 7 - SUFFOLK COUNTY COUNCIL ARCHAEOLOGY RESPONSE

SCC Archaeology

This large proposal affects an area of high archaeological potential recorded in the County Historic Environment Record (HER). Within and immediately adjacent to the proposed quarry, archaeological finds and below ground archaeological remains have been recorded. However, the application area has never been subject to systematic archaeological investigation and therefore the character, extent and significance of surviving archaeology at this site has yet to be defined. The proposed development would have a direct impact upon heritage assets as the planned works will damage or destroy any surviving remains which do exist within the site, however, without further assessment, the impacts cannot be fully understood. Existing data regarding known heritage assets present within this site comes from information recorded within the County HER.

This site lies in an area of high archaeological potential and is in a very favourable topographic location for early occupation, close to a watercourse. Within the site itself, cropmark features have been recorded (BSD 005), alongside the site of a post medieval brick kiln (COP 028). Multi-period finds scatters and other cropmark sites have also been identified in the immediate vicinity of the quarry site (BSD 006, BTY 003 and COP 017). A medieval hollow way runs along the southern edge of the proposal area (BTY 043), which also borders a number of areas of ancient woodland, within which earthwork features have been
recorded (BTY 020, 023). However, due to the lack of previous archaeological investigation within the proposed development area, there is high potential for additional extensive and significant heritage assets to survive within the proposed development area, which are as yet unknown.

Given the high potential, lack of previous investigation and large size of the proposed development area, I recommend (in line with previous advice) that, in order to establish the full archaeological implications of this area and the suitability of the site for the development, the applicant should be required to provide for an archaeological evaluation of the site prior to the determination of any planning application submitted for this site, to allow for preservation in situ of any sites of national importance that might be defined (and which are still currently unknown). This large area cannot be assessed or approved in our view until a full archaeological evaluation has been undertaken, and the results of this work will enable us to accurately quantify the archaeological resource (both in quality and extent). This is in accordance with paragraphs 194 and 195 of the National Planning Policy Framework.

Decisions on the suitability of the site, and also the need for, and scope of, any further work should belowground heritage assets of significance be identified, will be based upon the results of the evaluation.

In order to establish the archaeological potential of the site, the completion of the geophysical survey (which has only been undertaken for part of the proposal area so far) should be required. The geophysical survey results will be used to make a decision on the timing and extent of trial trenched evaluation which is required at this site. The results of the evaluation should be presented as part of any planning application for this site, along with a detailed strategy for further investigation and appropriate mitigation. The results should inform the development to ensure preservation *in situ* of any previously unknown nationally important heritage assets within the development area.

As also set out in the minerals plan, an assessment of Palaeolithic potential and deposit modelling within the proposed extraction area, by a suitably qualified specialist, is also required. The assessment should follow Historic England Guidance (Curating the Palaeolithic 2020 and Deposit Modelling and Archaeology 2020) and should be used to guide a strategy for further field-based assessment of Palaeolithic potential, as appropriate.

We also note that the proposed access crosses the line medieval hollow way which survives as an extant feature. The final design of the scheme should seek to minimise disruption to this feature and contain the access within the exiting field access in this area as much as possible.

The impact of the proposed scheme upon the setting of Listed Buildings and upon the historic landscape should also be assessed, with advice regarding appropriate assessment sought from Historic England, the BMSDC Conservation Officer and the SCC Landscape Officer.

The Conservation Team of the Suffolk County Council Archaeological Service would be pleased to offer guidance on the archaeological work required and will, on request, provide a brief for each stage of the archaeological investigation.

APPENDIX 8 - SUFFOLK COUNTY COUNCIL PUBLIC RIGHTS OF WAY RESPONSE

SCC Public Rights of Way

As clearly shown in the Applicant's plans, the proposed site does contain public rights of way (PROW): Belstead Public Footpath 25, Belstead Public Footpath 26, Belstead Public Footpath 26A, Belstead Public Footpath 27A, Copdock Public Footpath 15, Copdock Public Footpath 16, Copdock Public Footpath 51, Copdock Public Footpath 15A, and Bentley Public Footpath 64. The Definitive Maps for Belstead, Copdock and Bentley can be seen at:

- https://www.suffolk.gov.uk/assets/Roads-and-transport/public-rights-of-way/Belstead.pdf
- https://www.suffolk.gov.uk/assets/Roads-and-transport/public-rights-of-way/Copdock.pdf
- https://www.suffolk.gov.uk/assets/Roads-and-transport/public-rights-of-way/Bentley.pdf

A more detailed plot of public rights of way can be requested by the Applicant to accurately plot PROW on relevant plans. Please contact DefinitiveMaps@suffolk.gov.uk for more information. Note, there is a fee for this service.

We accept to this proposal, however the following must be taken into account:

1. PROW MUST remain open, unobstructed, and safe for the public to use at all times, including throughout any construction period. If it is necessary to temporarily close or divert a PROW, the appropriate process must be followed (please see points 4 and 5 below).

2. PROW are divided into the following classifications:

- Public Footpath – only for use on foot or with a mobility vehicle
- Public Bridleway – use as per a public footpath, and on horseback or by bicycle
- Restricted Byway – use as per a bridleway, and by a 'non-motorised vehicle', e.g. a horse and carriage.
- Byway Open to All Traffic (BOAT) – can be used by all vehicles, in addition to people on foot, mobility vehicle, horseback and bicycle.

All currently recorded PROW are shown on the Definitive Map and described in the Definitive Statement (together forming the legal record of all currently recorded PROW). There may be other PROW that exist which have not been registered on the Definitive Map. These paths are either historical paths that were not claimed under the National Parks and Access to the Countryside Act 1949 or since, or paths that have been created by years of public use. To check for any unrecorded rights or anomalies, please contact DefinitiveMaps@suffolk.gov.uk.

3. The applicant, and any future owners, residents etc, must have private rights to take motorised vehicles over a PROW other than a BOAT. To do so without lawful authority is an offence under the Road Traffic Act 1988. Any damage to a PROW resulting from works must be made good by the applicant. Suffolk County Council is not responsible for the maintenance and repair of PROW beyond the wear and tear of normal use for its classification and will seek to recover the costs of any such damage it is required to remedy. We do not keep records of private rights and suggest that a solicitor is contacted.

4. The granting of planning permission IS SEPARATE to any consents that may be required in relation to PROW. It DOES NOT give authorisation for structures such as gates to be erected on a PROW, or the temporary or permanent closure or diversion of a PROW. Nothing may be done to close, alter the alignment, width, surface or condition of a PROW, or to create a structure such as a gate upon a PROW, without the due legal process being followed, and permission being granted from the Rights of Way & Access Team as appropriate. Permission may or may not be granted depending on all the circumstances. To apply for permission from Suffolk County Council (as the highway authority for Suffolk) please see below:

- To apply for permission to carry out work on a PROW, or seek a temporary closure – https://www.suffolk.gov.uk/roads-and-transport/public-rights-of-way-in-suffolk/rights-and-responsibilities/ or telephone 0345 606 6071. PLEASE NOTE, that any damage to a PROW resulting from works must be made good by the applicant. Suffolk County Council is not responsible for the maintenance and repair of PROW beyond the wear and tear of normal use for its classification and will seek to recover the costs of any such damage it is required to remedy.

- To apply for permission for structures such as gates to be constructed on a PROW – contact the relevant Area Rights of Way Team - https://www.suffolk.gov.uk/roads-and-transport/public-rights-of-way-insuffolk/ public-rights-of-way-contacts/ or telephone 0345 606 6071.

5. To apply for permission for a PROW to be stopped up or diverted within a development site, the officer at the appropriate borough or district council should be contacted at as early an opportunity as possible - https://www.suffolk.gov.uk/roads-and-transport/public-rights-of-way-in-suffolk/public-rights-of-way-contacts/ PLEASE NOTE, that nothing may be done to stop up or divert the legal alignment of a PROW until the due legal process has been completed and the order has come into force.

6. Under Section 167 of the Highways Act 1980 any structural retaining wall within 3.66 metres of a PROW with a retained height in excess of 1.37 metres, must not be constructed without the prior written approval of drawings and specifications by Suffolk County Council. The process to be followed to gain approval will depend on the nature and complexity of the proposals. Construction of any retaining wall or structure that supports a PROW or is likely to affect the stability of the PROW may also need prior approval at the discretion of Suffolk County Council. Applicants are strongly encouraged to discuss preliminary proposals at an early stage.

7. Any hedges adjacent to PROW must be planted a minimum of 2.0 metres from the edge of the path in order to allow for annual growth. The landowner is responsible for the maintenance of the hedge and hedges must not obstruct the PROW. Some hedge types may need more space, and this should be taken into account by the applicant. In addition, any fencing should be positioned a minimum of 0.5 metre from the edge of the path in order to allow for cutting and maintenance of the path, and should not be allowed to obstruct the PROW.

8. There may be a further requirement to enhance the PROW network relating to this development. If this is the case, a separate response will contain any further information.

In the experience of the County Council, early contact with the relevant PROW officer avoids problems later on, when they may be more time consuming and expensive for the applicant to address. More information about Public Rights of Way can be found at www.suffolk.gov.uk/roads-and-transport/public-rights-of-way-in-suffolk/

Figures

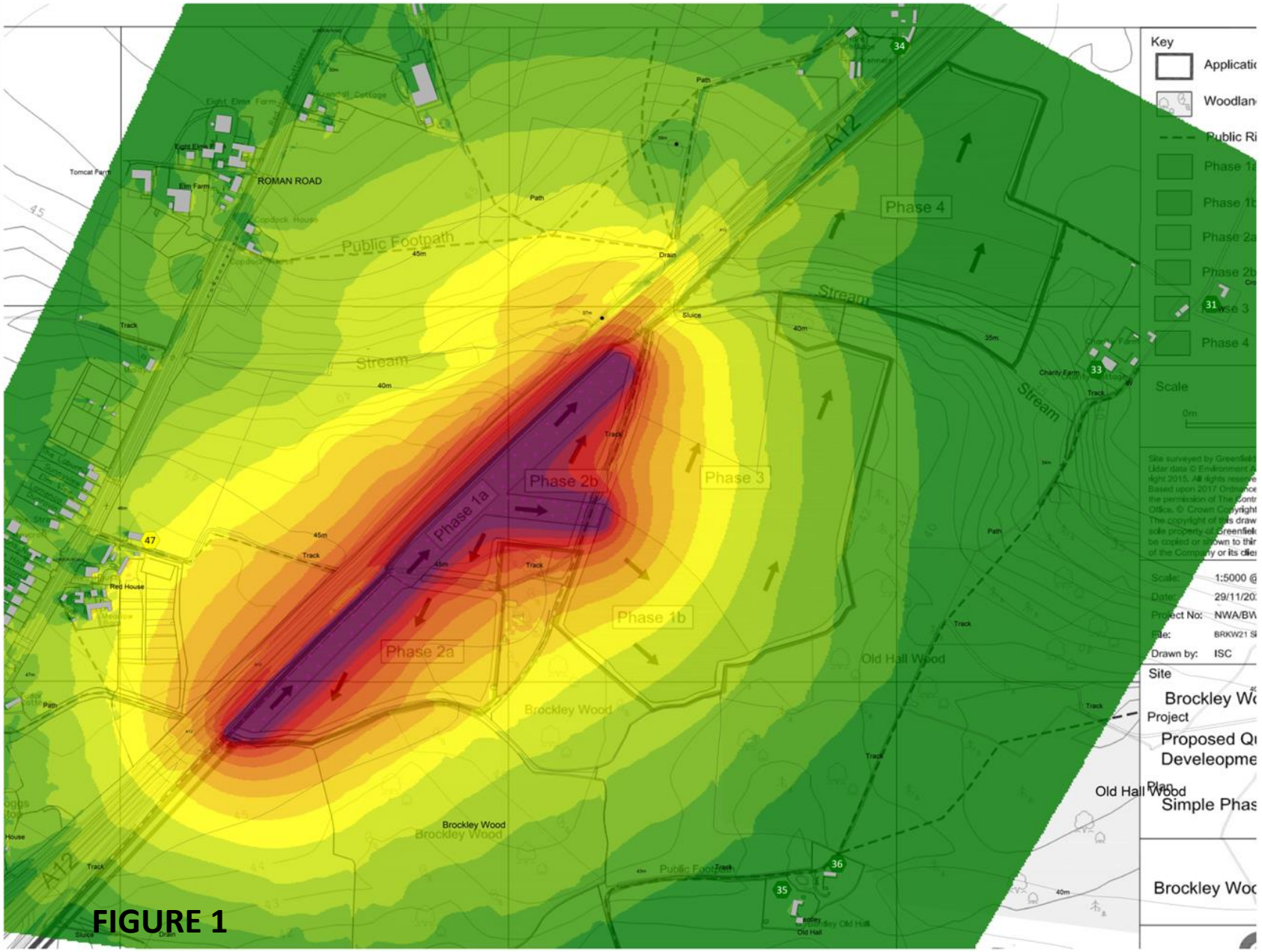

ROMAN ROAD
Public Footpath
Stream
Phase 1a
Phase 1b
Phase 2a
Phase 2b
Phase 3
Phase 4
Old Hall Wood
Brockley Wood
A12
Key
Noise level
LAeq(T)
(dB)
37 < <= 37
37 < <= 39
39 < <= 41
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 <
Brockley Wood
Haul Road construction
noise levels
'Typical' LAeq(T)
London Road
Contour Grid / Calculations
at 1.5m height
(Noise contour plot provided
for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240
m
SHARPS REDMORE
ACOUSTIC CONSULTANTS

FIGURE 1

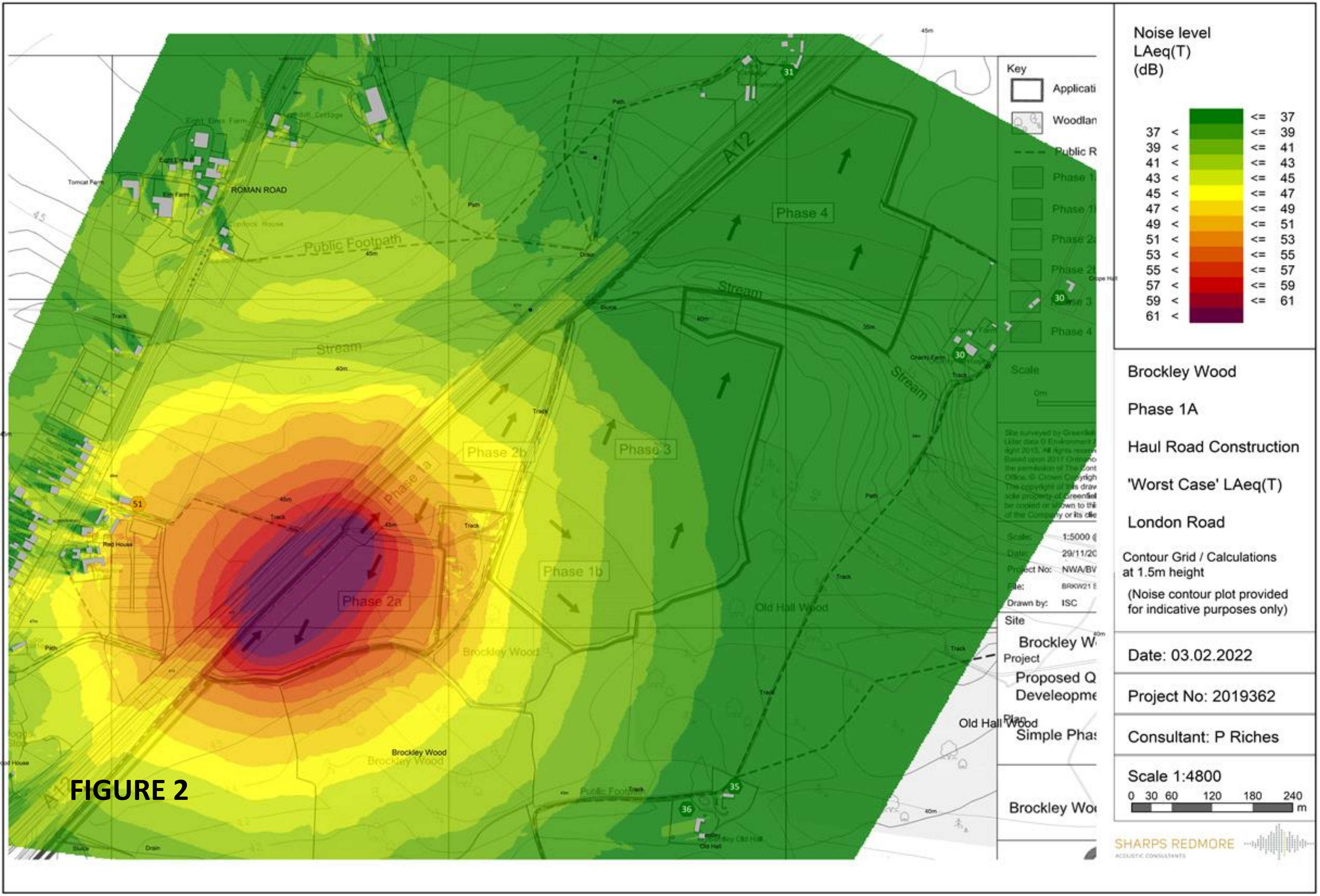

Noise level
LAeq(T)
(dB)
<= 37
37 < <= 39
39 < <= 41
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 <
Brockley Wood
Phase 1A
Haul Road Construction
'Worst Case' LAeq(T)
London Road
Contour Grid / Calculations at 1.5m height
(Noise contour plot provided for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240 m
SHARPS REDMORE
A12
Phase 1a
Phase 1b
Phase 2a
Phase 2b
Phase 3
Phase 4
Public Footpath
Stream
ROMAN ROAD
Old Hall Wood
Brockley Wood

FIGURE 2

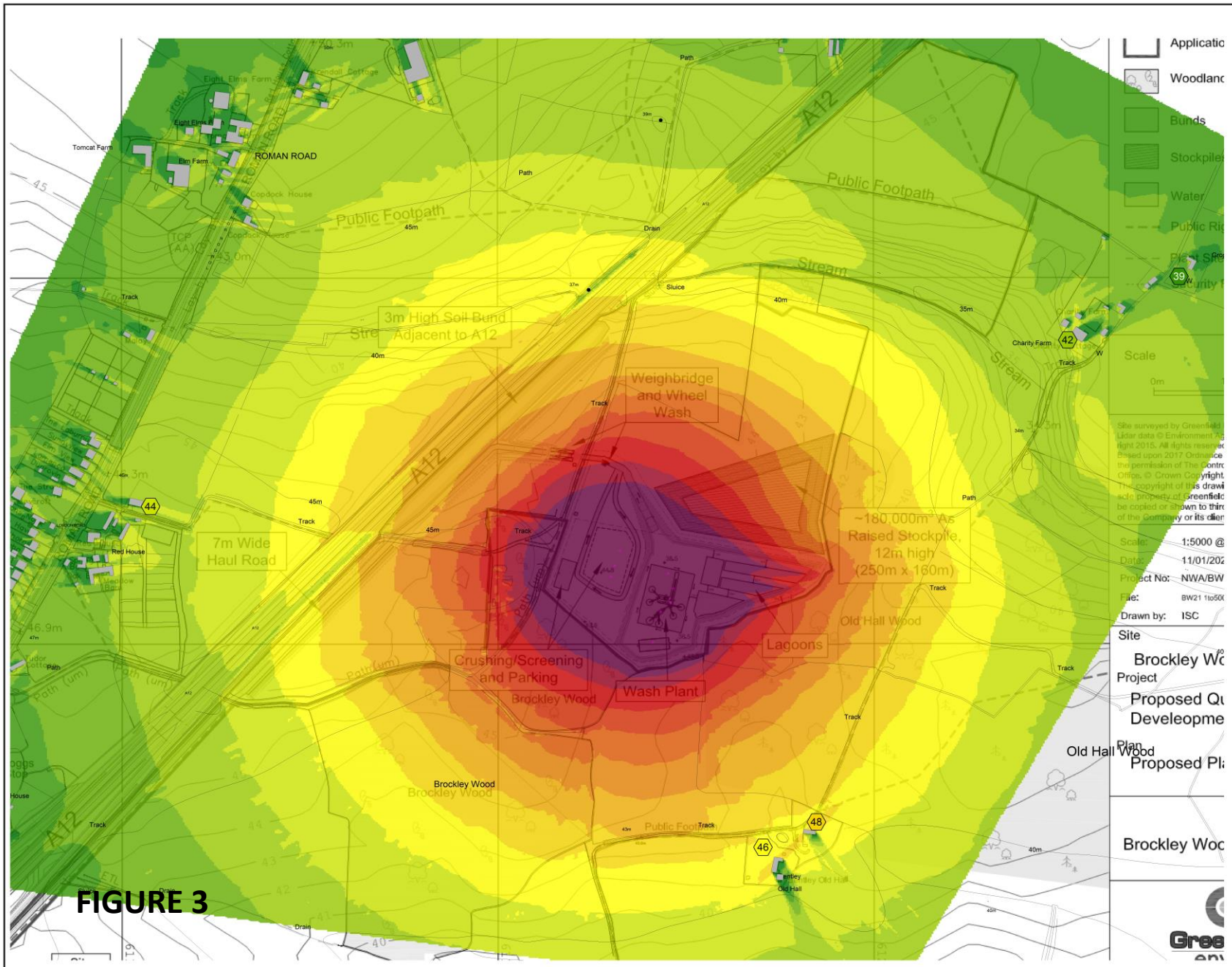


FIGURE 3

Noise level
LAeq(T)
(dB)

	<=	37
37 <	<=	39
39 <	<=	41
41 <	<=	43
43 <	<=	45
45 <	<=	47
47 <	<=	49
49 <	<=	51
51 <	<=	53
53 <	<=	55
55 <	<=	57
57 <	<=	59
59 <	<=	61
61 <		

Brockley Wood

Interim Plant Area
Noise levels

LAeq(T)

Contour Grid / Calculations at 1.5m height

(Noise contour plot provided for indicative purposes only)

Date: 03.02.2022

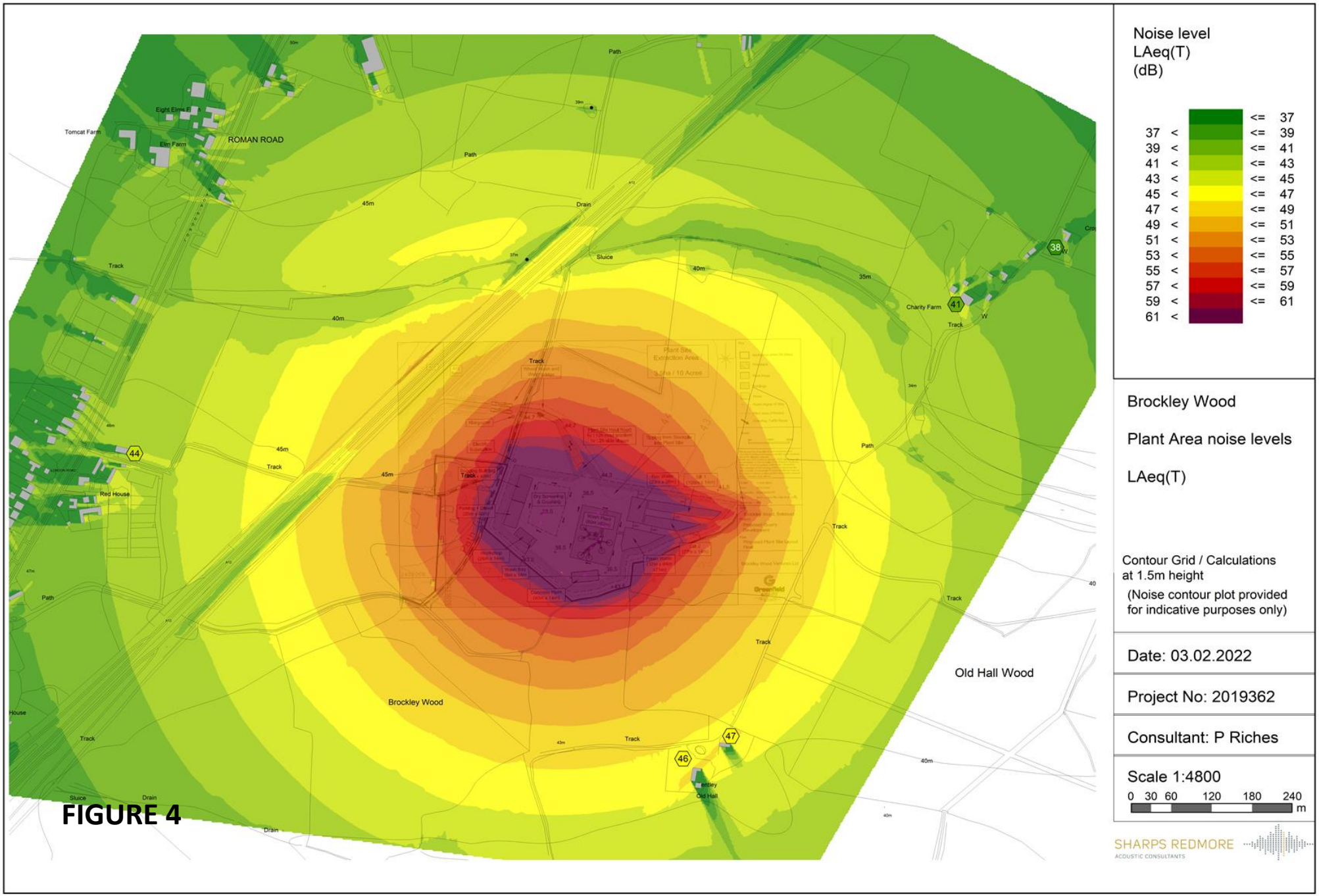
Project No: 2019362

Consultant: P Riches

Scale 1:4800

0 30 60 120 180 240 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS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LAeq(T)
(dB)
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39 < <= 39
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 < <= 61
Brockley Wood
Plant Area noise levels
LAeq(T)
Contour Grid / Calculations at 1.5m height
(Noise contour plot provided for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240 m
SHARPS REDMORE
ACOUSTIC CONSULTANTS
ROMAN ROAD
Tomcat Farm
Elm Farm
Charity Farm
Red House
Old Hall Wood
Brockley Wood
Old Hall
Plant Site Extraction Area
Track
Path
Drain
Sluice
44
46
47
38
41

FIGURE 4

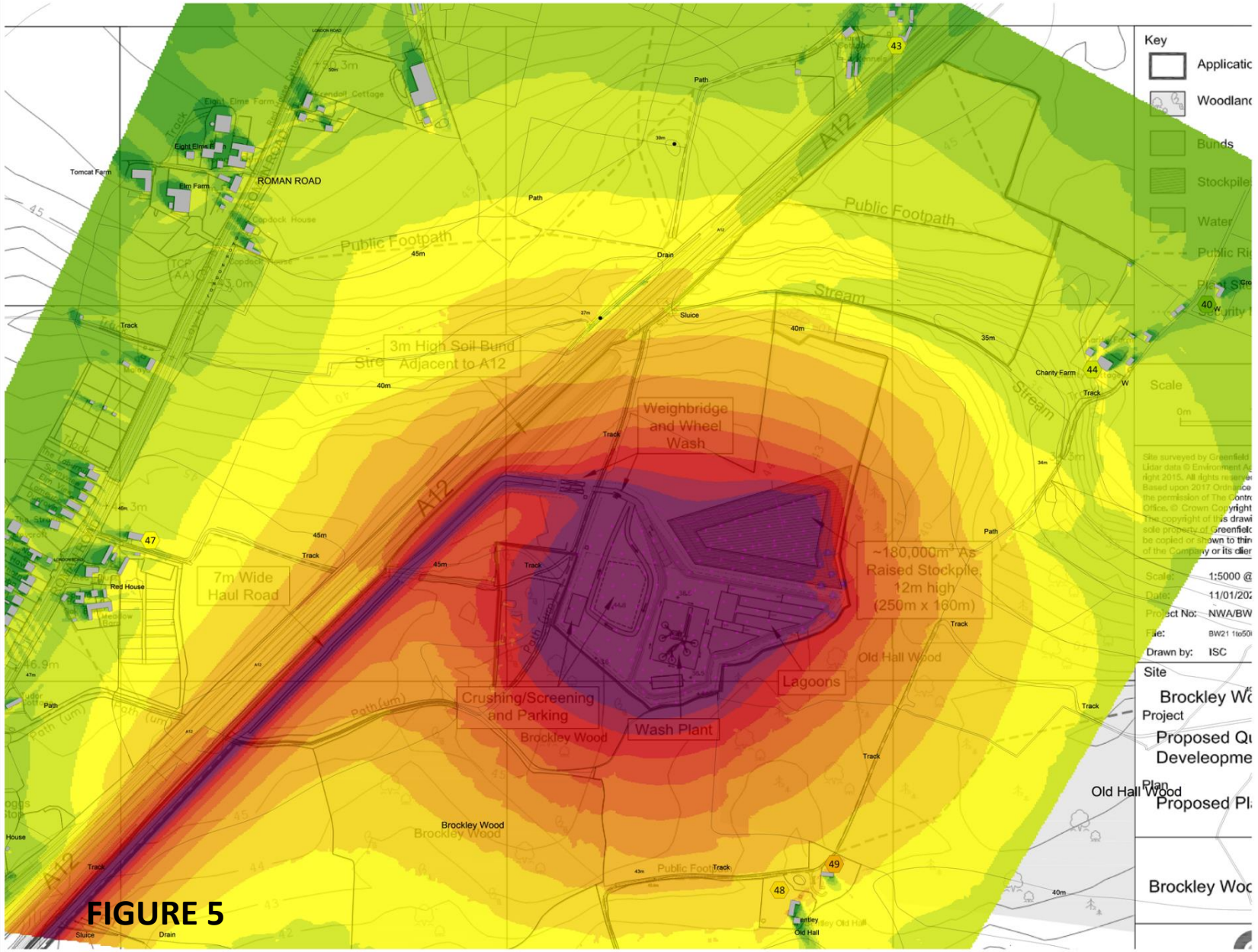

Noise level
LAeq(T)
(dB)
37 < <= 37
39 < <= 39
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 <
Key
Applicatic
Woodlanc
Bunds
Stockpile
Water
Public Ri
Plant Site
Security
Scale
0m
Site surveyed by Greenfield
Lidar data © Environment A
right 2015. All rights reser
Based upon 2017 Ordnance
the permission of The Contr
Office. © Crown Copyright
The copyright of this drawi
sole property of Greenfield
be copied or shown to thir
of the Company or its dier
Scale: 1:5000 @
Date: 11/01/202
Project No: NWA/BW
File: BW21 1to50
Drawn by: ISC
Site
Brockley Wo
Project
Proposed Qu
Develeopme
Plan
Proposed Pl
Brockley Woo
Brockley Wood
Phase 1B
Overall noise levels
'Typical' LAeq(T)
Contour Grid / Calculations
at 1.5m height
(Noise contour plot provided
for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240
m
SHARPS REDMORE
ACOUSTIC CONSULTANTS
3m High Soil Bund
Adjacent to A12
Weighbridge
and Wheel
Wash
~180,000m³ As
Raised Stockpile,
12m high
(250m x 160m)
7m Wide
Haul Road
Crushing/Screening
and Parking
Wash Plant
Lagoons
Old Hall Wood
Brockley Wood
ROMAN ROAD
A12
Public Footpath
Stream
Tomcat Farm
Elm Farm
Eight Elms Farm
Copdock House
Charity Farm
Red House
Old Hall
Track
Path
Drain
Sluice

FIGURE 5

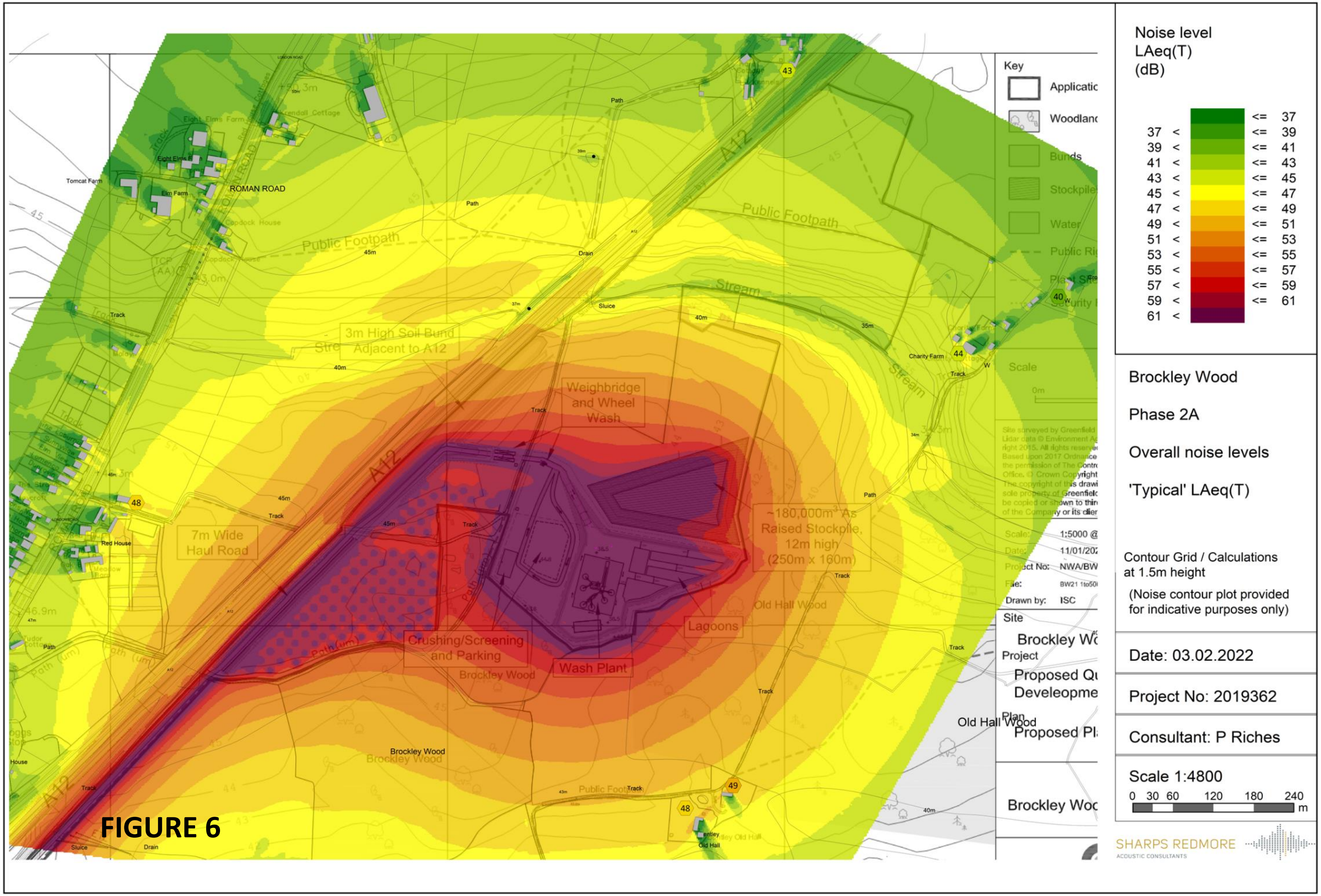
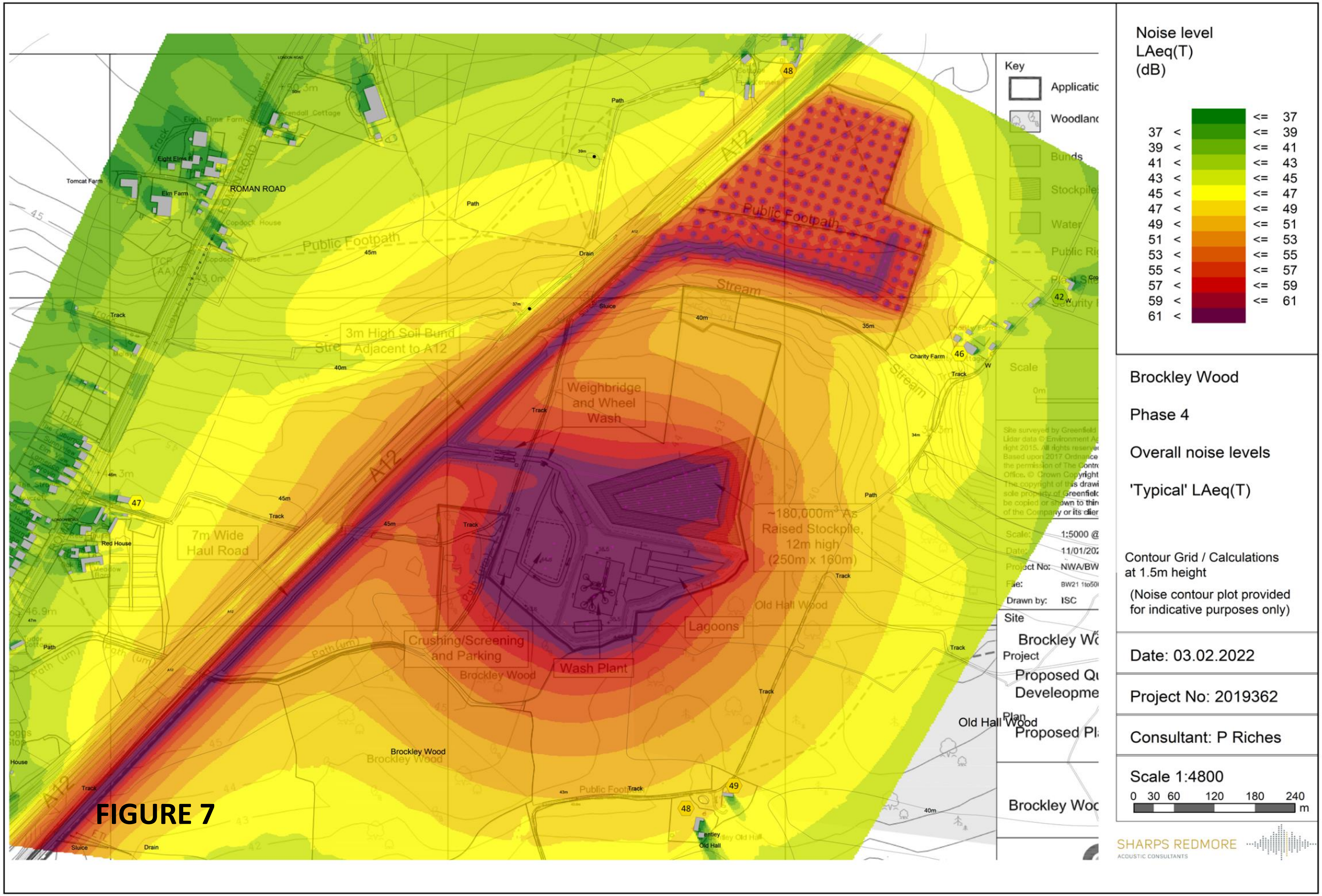

Noise level
LAeq(T)
(dB)
<= 37
37 < <= 39
39 < <= 41
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 <
Brockley Wood
Phase 2A
Overall noise levels
'Typical' LAeq(T)
Contour Grid / Calculations at 1.5m height
(Noise contour plot provided for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240 m
SHARPS REDMORE
ACOUSTIC CONSULTANTS
A12
ROMAN ROAD
Public Footpath
Stream
3m High Soil Bund Adjacent to A12
Weighbridge and Wheel Wash
~180,000m³ As Raised Stockpile, 12m high (250m x 160m)
7m Wide Haul Road
Crushing/Screening and Parking
Wash Plant
Lagoons
Brockley Wood
Old Hall Wood
Charity Farm
Red House
Tomcat Farm
Elm Farm
43
40
44
48
49
48

FIGURE 6



Noise level
LAeq(T)
(dB)
<= 37
37 < <= 39
39 < <= 41
41 < <= 43
43 < <= 45
45 < <= 47
47 < <= 49
49 < <= 51
51 < <= 53
53 < <= 55
55 < <= 57
57 < <= 59
59 < <= 61
61 <
Brockley Wood
Phase 4
Overall noise levels
'Typical' LAeq(T)
Contour Grid / Calculations
at 1.5m height
(Noise contour plot provided
for indicative purposes only)
Date: 03.02.2022
Project No: 2019362
Consultant: P Riches
Scale 1:4800
0 30 60 120 180 240
m
SHARPS REDMORE
ACOUSTIC CONSULTANTS
A12
ROMAN ROAD
Public Footpath
3m High Soil Bund
Adjacent to A12
Weighbridge
and Wheel
Wash
7m Wide
Haul Road
~180,000m³ As
Raised Stockpile,
12m high
(250m x 160m)
Crushing/Screening
and Parking
Wash Plant
Lagoons
Old Hall Wood
Brockley Wood
Stream
Charity Farm
Tomcat Farm
Eight Elms Farm
Elm Farm
Red House
Key
Scale
48
47
46
42
49

FIGURE 7