

Great Grovehurst Farm, Sittingbourne, Kent

**Brickearth Extraction Method Statement
as required by planning permission
18/502372**

July 2021



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BRICKEARTH EXTRACTION METHOD STATEMENT AS REQUIRED BY PLANNING PERMISSION 18/502372

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1.0 INTRODUCTION

The Great Grovehurst Farm site near Sittingbourne lies within an area of mineral safeguarding for brickearth identified in the Kent Minerals and Waste Local Plan (Policy CSW5). Brickearth is used to manufacture yellow stock bricks and Wienerberger Limited operate the only brickworks in Kent located at Smeed Dean some three kilometres away from Great Grovehurst Farm.

The prior extraction of brickearth in advance of surface development is a requirement of the Kent Minerals and Waste Local Plan, in order to avoid permanent sterilisation of an important industrial mineral (Policy DM9). The planning permission for residential development at Great Grovehurst Farm granted by Swale Borough Council on 2 July 2021 (reference 18/502372) also permits the removal of brickearth to avoid sterilisation (Condition 18).

Swale Borough Council have accepted that brickearth extraction should be undertaken subject to appropriate mitigation measures, as recommended in the noise assessment and air quality assessments which accompanied the planning application, together with the requirements of the planning conditions. This Brickearth Extraction Method Statement seeks the approval of planning condition 14 which states:

Prior to the commencement of the development, a Brick Earth Extraction Method Statement shall be submitted to and approved in writing by the Local Planning Authority. The extraction of brick earth shall then be carried out in accordance with the approved Brick Earth Extraction Method Statement and in line with IAMQ's 2016 Mineral Dust Guidance which shall include mitigation measures to minimise any potential impacts and shall include the following where relevant:

- *Routing of lorries between the site and the brickworks*
- *An indicative programme for carrying out the works*
- *Measures to minimise the production of dust from the site*
- *Measures to minimise noise (including vibration) generated by the extraction process to include the careful selection of machinery and use of noise mitigation barriers*
- *Maximum noise levels expected 1m from the affected facade of any residential unit adjacent to the site*
- *Measures to prevent the transfer of extraneous material onto the public highway*
- *The location and design of any site administration building or structure.*

Reason: In the interests of residential and highway amenity.

The Great Grovehurst Farm site lies on the northern outskirts of Sittingbourne and close to the A249 dual carriageway. Access is direct from Grovehurst Road which is located to the immediate west of the site. Along the northern boundary of the site lies the B2005 Swale Way with

commercial development beyond. To the east of the site is a rail line with residential properties further to the east. To the south are residential properties on Danes Mead and Godwin Close.

Subject to appropriate weather conditions, Wienerberger Ltd hope to remove the brickearth from the residential development area of the site during the summer of 2022 following the completion of the proposed archaeological and ecological mitigation works which, subject to the necessary licences and approvals, is hoped to be completed during 2021.

Access to the site would be direct from Grovehurst Road. There would be no access (vehicular or pedestrian) from Danes Mead or Godwin Close to the south.

Brickearth extraction would be carried out between 0730 and 1800 hours Monday to Friday and 0800 to 1300 hours on Saturday. There would be no brickearth extraction on Saturday afternoons, Sundays or Public Holidays (Condition 41).

It is the intention to extract the brickearth in an efficient and effective manner without causing unacceptable impact to the environment or to local amenity.

Condition 11 (Archaeology) requirements will be fulfilled under an appropriate submission. All archaeological investigations will be carried out prior to the extraction of brickearth.

Condition 4 (Great Crested Newts) requirements will be mitigated in accordance with the approved mitigation works and the requirements of an appropriate European Protected Species Licence from Natural England. All mitigation works will be carried out prior to the extraction of brickearth.

Twice daily environmental checks will be an important element of the site operations to ensure unacceptable impacts are avoided. The details of the environmental checks are set out in **Appendix 1**. In addition liaison would be undertaken with the closest residential properties, particularly those on Danes Mead, Godwin Close together with the occupiers of Great Grovehurst Farm, to ensure people were fully aware when extraction and associated operations are to be carried out. This would establish a clear means of communication with local residents. A formal complaint scheme would also be provided to the local community and is included in **Appendix 2** for reference.

This Brickearth Extraction Method Statement identifies the operations that could potentially result in environmental impact and the measures that would be undertaken to minimise any impacts.

The operations that could lead to environmental impact include soil handling (air and noise emissions and vibration), brickearth extraction (air and noise emissions and vibration) and brickearth transportation (air and noise emissions, vibration and fouling of the public highway). These operations are discussed in the following sections and measures are identified to ensure impacts are minimised.

Soil removal and brickearth extraction operations would be undertaken in full consideration of site health and safety matters, particularly relating to existing underground and overhead services within and adjacent to the site.

There is an electricity substation on site which remains live near the centre of the site close to the former farm buildings. The substation and the associated underground cable both lie outside the soil removal/brickearth extraction area, however they would be clearly marked on site and suitable warning signage would be provided. The substation and cable route would be physically protected by Herras-type fencing to prevent any access by earthmoving equipment or heavy goods vehicles (HGVs).

There is an overhead high-voltage electricity line crossing the northern part of the site. The location of the overhead line would be clearly marked out and fenced to prevent inadvertent access by earthmoving equipment. Access would be restricted to designated passageways with height restrictions in accord with the Health and Safety Executive guidance note GS6 4th edition *Avoiding Danger from Overhead Power Lines*.

In addition there is a medium pressure gas main alongside the eastern site boundary which lies outside the soil removal/brickearth extraction area. The limit of soil removal/brickearth extraction area would be clearly marked and warning signage provided. In addition the eastern boundary of the brickearth extraction area would be delineated by Herras-type fencing to ensure that earthmoving equipment did not gain access to areas beyond.

2.0 SOIL REMOVAL

The extraction of brickearth would be carried out following the removal of soils lying above the brickearth deposit.

Soils would be removed in a series of consecutive phases commencing from the south of the site and progressing in a northerly direction as shown on the three accompanying **Phasing Plans**.

Soil removal would be undertaken using 1 hydraulic excavator and 1 articulated dump truck. No other earthmoving equipment would be required. The excavator would load soils into the dump truck which would transport the soils to the southern part of the site to initially create a temporary screen bank (acoustic soil mound) alongside Danes Mead and Godwin Close and thereafter to store the soils in the southern part of the site in the area where brickearth had been removed.

The screen bank would be located 10 metres from the southern site boundary to retain a great crested newt access corridor as shown on the Phasing Plans. The screen bank would mitigate noise emissions and visual impact from brickearth extraction and would be dressed and shaped by the hydraulic excavator prior to seeding with a low-maintenance grass mix. The stored soils within the brickearth excavation would be located to the north of the screen bank and would not need to be shaped or seeded as the soils would be relocated for use in the landscaped areas and gardens of the residential development. The soils in the screen bank would also eventually be used within the residential development.

There are several potential environmental impacts that could arise during soil removal including reduction in air quality, noise emission and vibration.

Mitigation measures to minimise these environmental impacts include the measures listed in **Table 1** below.

Table 1 – Soil Removal Impact Mitigation

Potential Impact	Mitigation Measures	Effectiveness
Reduction in Air Quality		
	Twice daily visual checks of dust emissions from operations.	High
	Acoustic screen bank to be promptly sown with grass following completion to avoid wind-blow.	Medium
	Dump truck not to be overfilled to avoid spillage.	Medium
	Cessation of operational activities when wind speeds and direction are likely to cause dust to carry to adjacent residential properties.	High
	Controlled use of fixed short haul route.	Medium

	Haul route to be regularly maintained.	Medium
	Water to be used on haul route as required via site water bowser.	High
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Mobile plant exhausts and cooling fans to point away from ground.	High
	Mobile plant to be regularly maintained.	Medium
Excessive Noise Emissions		
	Twice daily checks for excessive noise emissions.	High
	Provision of acoustic screen bank alongside residential properties to the south.	High
	Engines to be switched off when equipment not in use	Low
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium
	Mobile plant to be regularly maintained.	Medium
Excessive Vibration		
	Twice daily checks for excessive vibration from earthmoving equipment.	High
	Engines to be switched off when equipment not in use	Low
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium
	Mobile plant to be regularly maintained.	Medium

3.0 BRICKEARTH EXTRACTION

The extraction of brickearth would be undertaken in a series of consecutive phases commencing from the south of the site and progressing in a northerly direction as shown on the phasing plans.

Brickearth extraction would involve hydraulic excavators and articulated dump trucks. If the brickearth was to be loaded directly into HGVs for transportation to the Smeed Dean Brickworks then only 1 excavator would be used. If however it is found that HGVs are not able to satisfactorily access the brickearth extraction area then 1 additional excavator and 1 dump truck would be used and a temporary stockpile created in the area of the previous farm buildings. No other earthmoving equipment would be required.

If a brickearth stockpile were to be required the brickearth would be loaded by the first excavator into the dump truck and transported from the extraction area to the temporary stockpile. Brickearth would be loaded from the stockpile by the second excavator directly into HGVs for transportation to the Brickworks.

There are several potential environmental impacts that could arise during brickearth extraction including impacts to air quality, noise emission and vibration. Mitigation measures to minimise these impacts are very similar to those that would be employed to minimise air quality and noise emissions arising during soil removal and would include the measures listed in **Table 2** below.

Table 2 – Brickearth Extraction Impact Mitigation

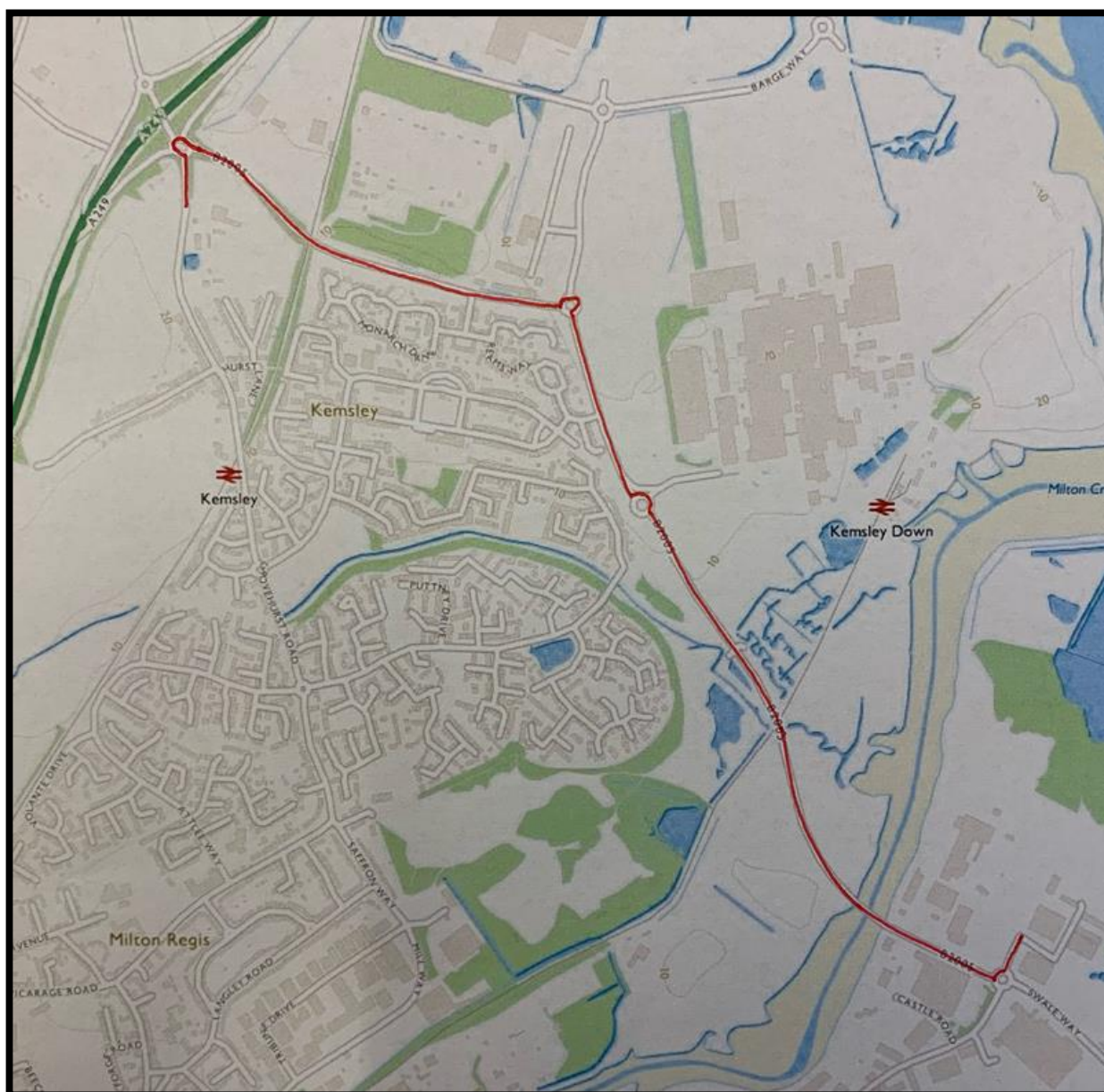
Potential Impact	Mitigation Measures	Effectiveness
Reduction in Air Quality		
	Twice daily visual checks of dust emissions.	High
	Dump truck not to be overfilled to avoid spillage.	Medium
	Cessation of operational activities when wind speeds and direction are likely to cause dust to carry to adjacent residential properties.	High
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium
	Water to be used on haul route as required via site water bowser.	High
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Mobile plant exhausts and cooling fans to point away from ground.	High
	Mobile plant to be regularly maintained.	Medium

Excessive Noise Emissions		
	Twice daily checks for excessive noise emissions.	High
	Provision of acoustic screen bank alongside residential properties to the south.	High
	Engines to be switched off when equipment not in use	Low
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium
	Mobile plant to be regularly maintained.	Medium
Excessive Vibration		
	Twice daily checks for excessive vibration from earthmoving equipment.	High
	Engines to be switched off when equipment not in use	Low
	Speed limit of 10mph to be implemented on haul route.	High
	Drop heights to be minimised.	Medium
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium
	Mobile plant to be regularly maintained.	Medium

4.0 BRICKEARTH TRANSPORT

Brickearth would be transported from the site to the Smeed Dean Brickworks which lies 3km away. It is likely that up to six HGVs would operate on a regular basis transporting brickearth during the working hours. Access for HGVs would be solely from Grovehurst Road.

The HGVs would enter and exit the site via the existing surfaced access from Grovehurst Road. HGVs heading to Smeed Dean would travel in a northerly direction from the site to the Grovehurst Roundabout and then south-east along Swale Way (B2005) direct to the Brickworks.



There are several potential environmental impacts that could arise during brickearth transportation from the site including impacts to air quality, noise emission, vibration and fouling of the public highway. Mitigation measures to minimise these impacts are very similar to those that would be employed to minimise impacts during soil removal and brickearth extraction. The measures are listed in **Table 3** below.

Table 3 – Brickearth Transportation Impact Mitigation

Potential Impact	Mitigation Measures	Effectiveness
Reduction in Air Quality		
	Twice daily visual checks of dust emissions from HGV movements.	High
	Cessation of operational activities when wind speeds and direction are likely to cause dust to carry to adjacent residential properties.	High
	Speed limit of 10mph on site.	High
	HGVs to be regularly maintained.	Medium
	A road sweeper would be used to clean the site access and Grovehurst Road if necessary.	High
	HGVs transporting brickearth would be sheeted before leaving the site.	High
Excessive Noise Emissions		
	Twice daily checks for excessive noise emissions from HGV movements.	High
	Provision of acoustic screen bank alongside residential properties to the south.	High
	Engines to be switched off when equipment not in use	Low
	Site access to be maintained in good condition.	Medium
	Speed limit of 10mph on site.	High
	HGVs to be regularly maintained.	Medium
Excessive Vibration		
	Twice daily checks for excessive vibration from HGVs.	High
	Engines to be switched off when equipment not in use	Low
	Speed limit of 10mph to be implemented on haul route.	High
	Site access to be maintained in good condition.	Medium
	Controlled use of fixed short haul route.	Medium
	Haul route to be regularly maintained.	Medium

	HGVs to be regularly maintained.	Medium
Fouling the Public Highway		
	Twice daily checks for fouling of the public highway from HGVs.	High
	HGVs to remain on surfaced areas unless the access route was sufficiently dry and stable.	High
	Use of water sprays on surfaced access areas if required.	High
	A road sweeper would be used to clean the site access and Grovehurst Road when necessary.	High
	HGVs transporting brickearth would be sheeted before leaving the site.	High

5.0 MAXIMUM EXPECTED NOISE LEVELS

A detailed Noise and Vibration Assessment prepared by Sharps Redmore in January 2018 (project number 1717083) accompanied the planning application. The Assessment considered levels of noise and vibration likely to arise from the activities associated with brickearth extraction and provided predicted noise levels which are reproduced in **Table 4** below.

The Assessment concluded that with the exception of a slight exceedance (1-2 dB) at 15 Godwin Close, during the initial striping of the topsoil, prior to construction of the earth bund, noise levels will be within the recommended noise criteria. Furthermore, noise from the brickearth extraction will be of a limited duration and will be controlled by the Brickearth Extraction Method Statement which will include work times, machinery to be used, noise and dust suppression and traffic routing.

The operational and equipment details provided within this Brickearth Extraction Method Statement would ensure that maximum noise levels did not exceed the predicted levels.

Table 4 – Predicted Noise Levels

Receptor	Predicted Noise Level L_{AeqT} dB	
	Stage 1 – Stripping of Topsoil	Stage 2 – Removal of Brick earth
16 Danes Mead	63 – 65 dB	61 – 63 dB
15 Godwin Close	65 – 67 dB	61 – 63 dB
26 Godwin Close	63 – 65 dB	61 – 63 dB

6.0 SITE ADMINISTRATION BUILDING

There is no requirement for a site office or administration facility during brickearth extraction.

The only building required will be a small, single storey portacabin type, temporary building which would be used as welfare facilities and would contain a chemical toilet. The building dimensions would be 3 metres wide, 6 metres long and 2.2 metres high with a flat roof and painted light grey (RAL colour 7035 or similar).

The building would be located in an area adjacent to the substation building as shown on the Phasing Plans. The building would be removed once the brickearth extraction and transportation off-site had been completed.

7.0 CONCLUSION

The Brickearth Extraction Method Statement has been produced to address the requirements of planning condition 14 of planning permission 18/502372 granted on 2 July 2021 by Swale Borough Council and relates to potential environmental impacts associated with brickearth extraction.

The activities associated with brickearth removal have the potential to create environmental impacts in terms of deterioration in air quality, excessive noise emissions, vibration and fouling of the public highway.

The mitigation measures included in the Brickearth Extraction Method Statement are designed to ensure there are no unacceptable environmental or highway impacts or disturbance to local amenity as a consequence of brickearth extraction.

S C Lamb

Quarryplan (GB) Limited

July 2021

Appendix 1

Daily Environmental Checks

The Site Manager will carry out twice per working day a check of dust and noise emissions, vibration and the cleanliness of the public highway arising from any site operations taking place at the time including brickearth extraction, storage and transportation.

An assessment will be undertaken to determine if environmental impacts are likely to be excessive or cause a nuisance to receptors beyond the site boundary.

The inspections will record the following aspects:

- Name of assessor.
- Date and time.
- Point of observation.
- General weather conditions.
- Wind speed and direction.
- Level of precipitation occurring and during the last 4 hours (light drizzle, rain, heavy rain).
- Activities taking place.
- Soil condition.
- Level of visible dust emission at the site boundaries and at the closest residential properties.
- The level of noise emissions and any unusual or excessive noise.
- Any noticeable vibration from site activities.
- Cleanliness of Grovehurst Road at the site entrance.
- Requirement for amendment or cessation of activities.
- Actions taken and result.
- The inspection would be repeated one hour after amending the operations and if the problem persists then operations would cease until weather conditions improve or further mitigation measures were to be implemented and a further inspection confirms the problem had been addressed.

Appendix 2

Complaint Procedure

If a complaint is received about any activity connected to brickearth removal including soil stripping, brickearth extraction and storage and transportation then the following details will be provided to the Local Planning Authority by email or in writing within two working days of the complaint being received:

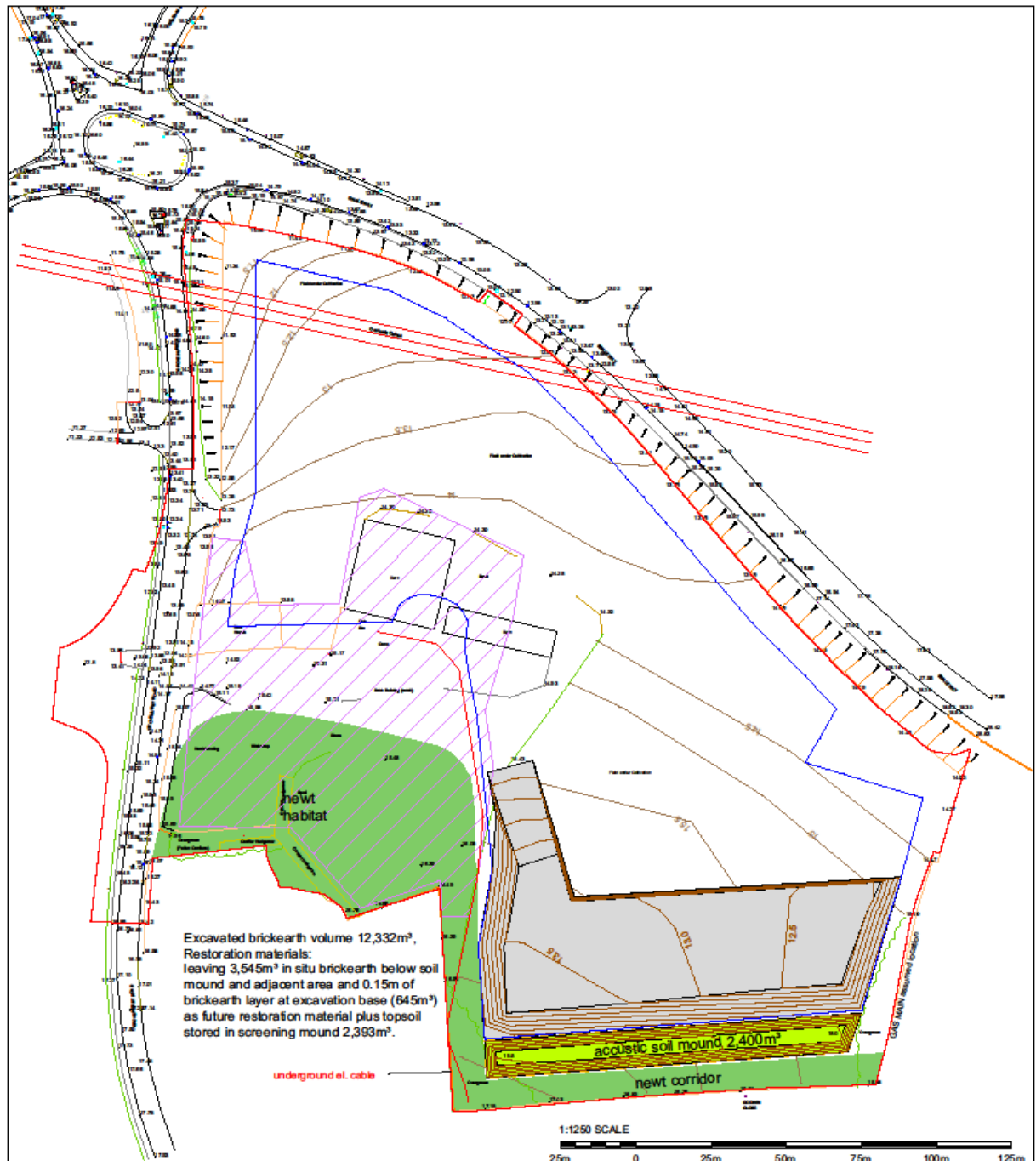
- Name, address, date, time of complaint.
- Nature of the complaint and location/description of probable source of complaint.
- Weather conditions at the time of the complaint.
- Location of site activities being carried out at the time of the complaint.
- Details of the response to complainant.
- Conclusion following investigation of the complaint.
- Any changes proposed to the site activities as a consequence of the complain

Phasing Plans

First Phase of Development for Brickearth Excavation

Phase 2 of Development for Brickearth Excavation

Phase 3 of Development for Brickearth Excavation



Excavated brickearth volume 12,332m³,
 Restoration materials:
 leaving 3,545m³ in situ brickearth below soil
 mound and adjacent area and 0.15m of
 brickearth layer at excavation base (645m³)
 as future restoration material plus topsoil
 stored in screening mound 2,393m³.

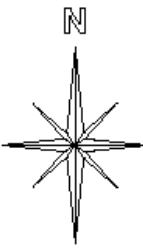
underground el. cable

1:1250 SCALE



Legend:

- Extraction limit
- Excavation area
- Screening soil storage mound
- Made ground
- Restoration soils storage area
- Residential development boundary



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Job Title GREAT GROVEHURST FARM			
Project Title BRICKEARTH DEVELOPMENT			
Scale 1:1,250	Date JAN. 19	Drawn by EOB	Revised

Client


Drawn by
FIRST PHASE OF DEVELOPMENT FOR BRICKEARTH EXCAVATION

DWG No. **G20/2 v3**

