

PROPOSED NORTH EASTERN
EXTENSION, BROMLEY FARM
QUARRY, UPPER CUMBERWORTH,
WEST YORKSHIRE

FLOOD RISK ASSESSMENT

Prepared for

Silkstone Environmental
Limited

December 2022
Ref:033/56/bfqext/fra/1222



S M Foster Associates Limited
Hydrological and Hydrogeological Consultants

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PROPOSED NORTH EASTERN EXTENSION, BROMLEY FARM QUARRY,
UPPER CUMBERWORTH, WEST YORKSHIRE

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Prepared for

Silkstone Environmental Limited

1. Introduction

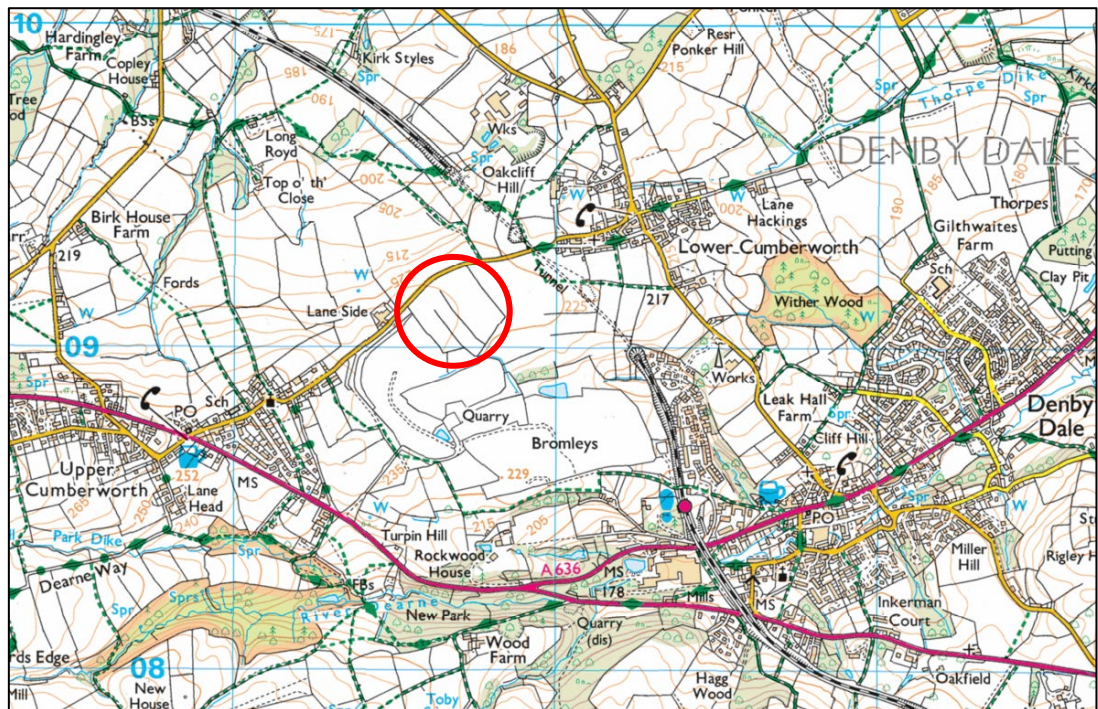
- 1.1 This report has been prepared in response to instructions dated 11th April 2022 from Silkstone Environmental Limited. The report presents a Flood Risk Assessment (FRA) related to a proposed north eastern extension to Bromley Farm Quarry, Upper Cumberworth, West Yorkshire. An FRA is required to support a planning application for the proposed development.
- 1.2 The Site is located within the catchment of East Hill Beck, a tributary of the River Dearne. East Hill Beck flows north west to south east approximately 100m to the south east of the proposed extension area. The Site is designated as being at low risk of fluvial flooding (Flood Zone 1) on the current Environment Agency Flood Map for Planning. As the Site extends to an area in excess of 1ha, a FRA is required to support a planning application.
- 1.3 The primary objective of this FRA is to evaluate potential risk of flooding from all sources and the consequent implications for Site operation and safety. Assessments have been undertaken of potential flood risk related to:
- (i) Flooding from rivers and sea
 - (ii) Flooding from surface water
 - (iii) Flooding from groundwater
 - (iv) Flooding from sewers and drainage infrastructure
- 1.4 Flood risk assessment has been based on analysis of published Government data sources, additional hydrological references, Site survey and consultation, ground level survey and independent hydrological analysis. Where information is available or can be derived, an assessment has been made of the potential implications of climate change effects on flood risk at the Site. Reference has been made to current Government climate change allowances for rainfall intensity.
- 1.5 Where potential flood hazard is identified, an assessment of operational vulnerability has been undertaken in relation to the definition of low vulnerability development. Where relevant, further analysis has been undertaken in relation to flood hazard to personnel and any existing Site safety provision.
- 1.6 This FRA incorporates details related to the proposed development and the Sequential Test as defined in NPPF. Flood hazard analysis has been informed by reference to a number of published data sources that include the following:

- Environment Agency flood maps;
 - British Geological Survey;
 - Ordnance Survey;
 - Online records search.
 - National Planning Policy Framework (2018); Planning practice guidance (2019);
 - Calderdale Level 1 Strategic Flood Risk Assessment Vol I & II (2016); and
 - Kirklees Local Plan (2019)
- 1.7 As defined in the NPPF, mineral extraction is defined as ‘less vulnerable’ development for the purpose of flood vulnerability assessment. National standards¹ confirm that less vulnerable development is ‘appropriate development’ in Flood Zone 1, passing the Sequential Test, with no requirement to pass the Exception Test.
- 1.8 In February 2016 (updated May 2022) the Government published new climate change allowances for flood risk assessment². Allowances relate to river and sea level changes and rainfall intensity changes for a range of future timescales. For the purpose of this FRA, climate change allowances have been applied to rainfall intensity.

2. Site location and flood risk status

- 2.1 Bromley Farm Quarry is located 500m east of the village of Upper Cumberworth in West Yorkshire. Site location is shown on Figure 1. The former quarry workings have now been fully restored by placement of overburden and inert waste materials as part of a recovery activity. The proposed extension would extend to an area of approximately 5ha, with access from the existing site internal access road.

Figure 1: Site location © Ordnance Survey



¹ National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG)

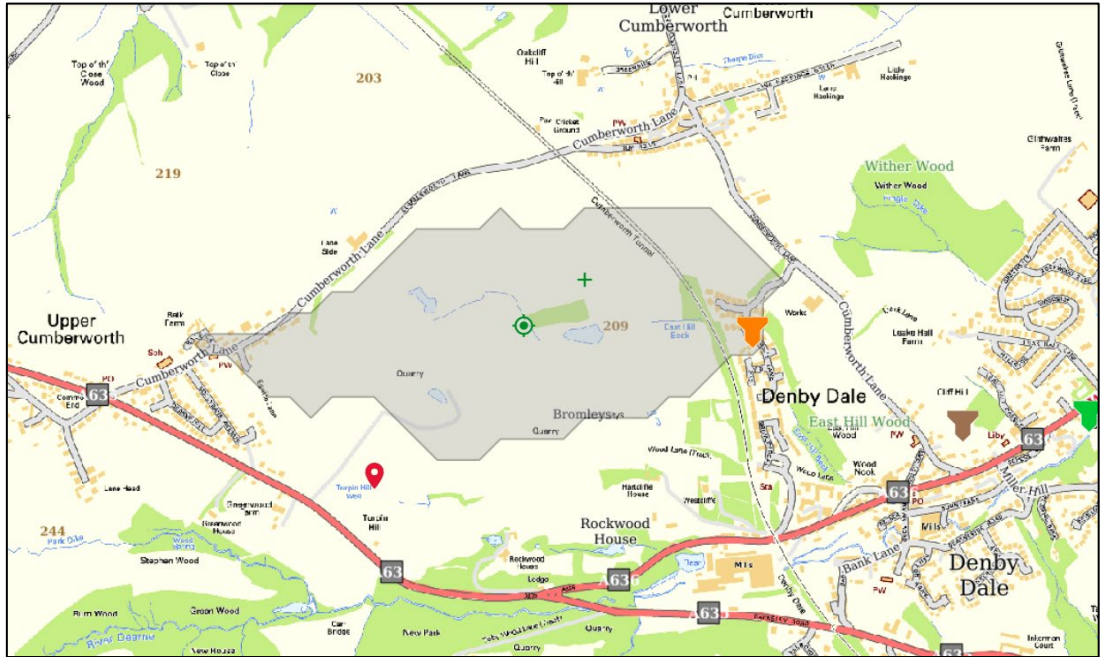
² Environment Agency 2016. Flood Risk Assessments: Climate change allowances. February 2016 (updated May 2022)

- 2.2 Land to the south and south east of the Site has been subject to mineral extraction and waste deposition in the past. As shown in Figure 2, surrounding land to the north and east is predominantly rural with the village of Upper Cumberworth to the west. The Site is bounded to the north by Cumberworth Lane. Cumberworth railway tunnel is located approximately 250m to the east.
- 2.3 Bromley Farm Quarry is established on elevated ground between the Dearne Valley to the south and Shepley Dike to the north. Ground levels at the site achieve a maximum elevation of 232mAOD at the northern boundary with Cumberworth Lane, reducing to a minimum of 225mAOD at the southern Site boundary. The existing quarry access from a track connecting from Barnsley Road is established at approximately 220mAOD.

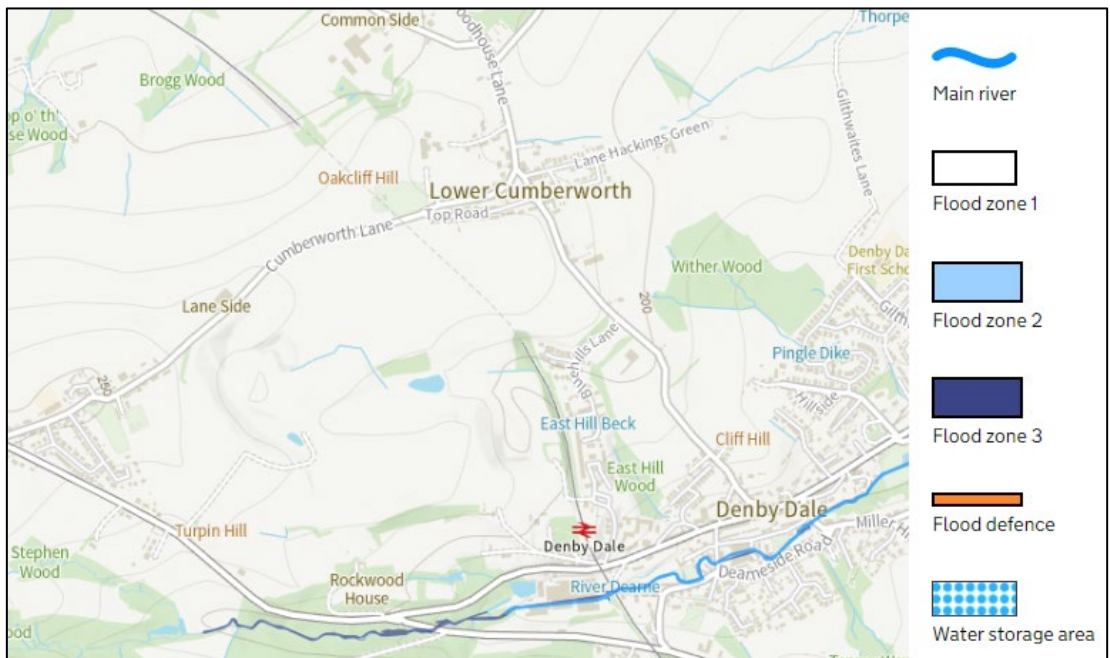
Figure 2: Aerial view of the site and surrounding area © Ordnance Survey



- 2.4 The majority of the proposed extension area is situated in the surface water catchment of the River Dearne, via East Hill Beck. The River Dearne flows west to east approximately 600m south of the application Site. East Hill Beck rises at issues 100m south east of the application Site, passing beneath the railway line to emerge in open channel at the northern end of Denby Dale. Hydrological indicates that East Hill Beck is connected to the small pond immediately south of the Site, and the upstream field drain that flows around the south western Site boundary. On this basis, surface water runoff from the majority of the Site is currently draining indirectly to East Hill Beck. Ground levels in the north eastern area of the Site fall towards the north west.
- 2.5 Flood Estimation Handbook (FEH) catchment models confirm that, downstream of the Site, East Hill Beck drains a catchment area of 0.5km², including the majority of the application Site. The East Hill Beck catchment area is indicated on Figure 3.

Figure 3: FEH catchment boundary for East Hill Beck adjacent to the application Site

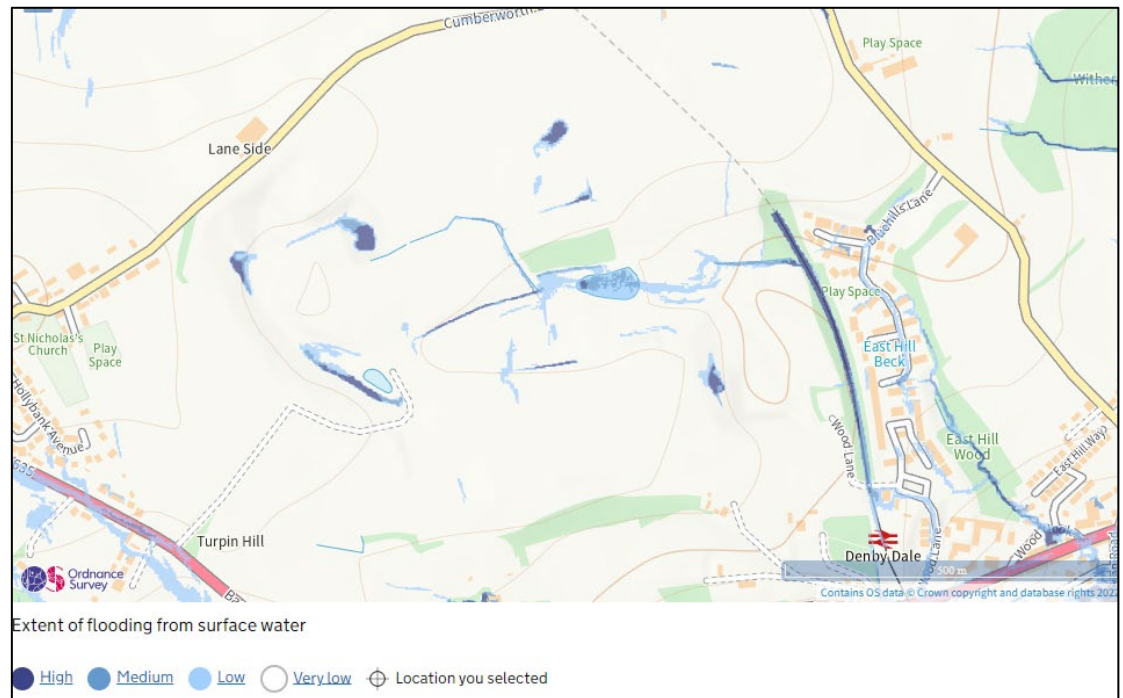
- 2.6 The existing quarry workings have been restored to establish ground levels that allow gravity drainage of surface water runoff towards the Site entrance. Surface water from the restored site drains via a small settlement pond at the site entrance to a small field drain adjacent to the access track for final discharge to the East Hill Beck system. The location of the application Site in relation to local surface water hydrology is shown on Drawing 033/56/01.

Figure 4: Flood Map for Planning extract © Environment Agency

- 2.7 The elevated location of the Site ensures that it is at low risk of fluvial flooding, as shown on the Environment Agency Flood Map for Planning, an extract from which is included as Figure 4, and also at low risk of surface water flooding as indicated on the Environment Agency Long Term Flood Risk Map, included as Figure 5. Reference to Defra's Magic map application

confirms that the Site is not within a source protection zone and is not subject to any surface water or groundwater quality designation.

Figure 5: Surface water flood risk map extract © Environment Agency



- 2.8 As discussed at Section 3, whilst operational, the proposed development would be drained by pumping to a water treatment area with off-site outfall to the existing field drainage tributary of East Hill Beck. Once completed and restored, surface water runoff from restored surfaces would drain naturally towards the south for discharge to the same field drainage system. Surface water drainage to East Hill Beck would therefore continue throughout the operational life of the development and post Site restoration.

3. Proposed development

- 3.1 The proposed development incorporates extraction of mudstone, sandstone and incidental coal from an eastern extension to the former Bromley Farm Quarry. The proposed excavation area extends to approximately 5ha, within a total application Site area of approximately 8ha. Extracted mudstone would be used by the applicant for the manufacture of clayware products. Extraction would be achieved by hydraulic excavator without the need for blasting.
- 3.2 Topsoils and subsoils would be excavated in advance of extraction on a phased basis and stored separately within the application Site area, as shown on development design drawings at Appendix A. There are no superficial geological deposits at the Site. A perimeter screening bund would be established around the excavation area. The proposed final excavation configuration is shown on development design drawings at Appendix A.
- 3.3 As shown on the restoration scheme drawing at Appendix A, on completion, the Site would be restored to grassland at original ground level by backfilling with overburden and imported inert waste materials. Once restored, surface water runoff from the Site would return to current greenfield rates.

- 3.4 All surface water runoff within the excavation boundary would drain naturally to the lowest point in the excavation from where it would be collected in a small sump and pumped to a water treatment area located at surface. Screening and overburden mounds would be equipped with peripheral ditch drains, as required, to direct runoff to the water treatment area. The water treatment area would consist of two connected silt settlement lagoons. The treatment system would provide both silt settlement and hydrocarbon retention capacity upstream of off-Site discharge to a small drainage tributary of Eat Hill Beck.
- 3.5 The post-restoration surface water drainage system would be designed in accordance with the requirements of sustainable drainage systems (SuDS) to ensure no increase in off-Site flood risk.

4. Strategic context and sequential planning

- 4.1 The strategic approach to flood risk and development is defined at a national level in the National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG), and at a local level in the Calder Catchment Strategic Flood Risk Assessment – Volume II (Kirklees) Final Report July 2016.
- 4.2 The SFRA sets out general flood risk management policy in relation to the NPPF as follows.
- ‘KC, as the LPA, should seek to avoid inappropriate development in areas at risk of flooding by directing development away from areas at highest risk and ensuring that all development does not increase risk and where possible can help reduce risk from flooding to existing communities and development.’*
- 4.3 Local planning policy regarding development and flood risk is set out at Policies LP27 and LP28 of the adopted Kirklees Local Plan (2019). Policy LP27 makes general reference to policy objectives with regard to flood risk as indicated below. The proposed development meets the requirements of Policy LP27 as follows.
- As less vulnerability development in Flood Zone 1 the proposed development passes the Sequential Test without requirement to apply the Exception Test;
 - The development would increase flood storage to support mitigation of downstream flood risk;
 - The proposed development would not increase flood risk elsewhere; and
 - The proposed restoration scheme would be consistent with the objectives of natural flood management.
- 4.4 Local Plan policy regarding sustainable drainage is set out at Policy LP28 as indicated in the following Local Plan policy extract. The proposed development would meet the requirements of Policy PL28 as follows.
- Off-site discharge of surface water would be restricted to the greenfield rate during extractive and post-restoration phases of the development;

- The development would incorporate potential for local water quality improvement; and
- Surface water would drain from the Site by gravity drainage.

Policy LP27

Flood risk

Proposals for development which require a Sequential Test in accordance with national planning guidance will need to demonstrate that development has been directed to areas at the lowest probability of flooding, following a sequential risk based approach. The whole Kirklees district should be the starting point for the sequential test with applicants required to provide justification where a smaller area of search is proposed. If following application of the sequential test, there are no reasonably available sites which could accommodate the development in zones with a lower probability of flooding, it should also be demonstrated that a sequential approach has been applied within sites. This is to ensure that highly vulnerable and more vulnerable uses are directed towards the areas of lowest flood risk within the site. Proposals will also need to demonstrate that the exception test is passed, where applicable, as set out in national planning policy.

Proposals within flood zone 3ai will be assessed in accordance with national policies relating to flood zone 3a but with all of the following additional restrictions:

- a. no new highly vulnerable or more vulnerable uses will be permitted;
- b. less vulnerable uses may only be permitted provided that the sequential test has been passed and;
 - i. where extensions are linked operationally to an existing business or,
 - ii. where redevelopment of a site provides buildings with the same or a smaller footprint;
- c. all proposals will be expected to include flood mitigation measures such as compensatory storage which should be identified and considered through a site specific Flood Risk Assessment;
- d. development will not be permitted on any part of the site identified through a site specific Flood Risk Assessment as performing a functional floodplain role.

Proposals must be supported by an appropriate site specific Flood Risk Assessment in line with national planning policy. This must take account of all sources of flooding set out in the Strategic Flood Risk Assessment and demonstrate that the proposal will be safe throughout the lifetime of the development (taking account of climate change). The proposal must also not increase flood risk elsewhere and where possible should reduce flood risk. Mitigation measures, where necessary, should be proposed.

Proposals involving building over existing culverts or the culverting or canalisation of water courses will not be permitted unless it can be demonstrated to be in the interests of public safety or to provide essential infrastructure and that there will be no detrimental effect on flood risk and biodiversity. Where feasible, development proposals should incorporate re-opening of culverts, modification of canalised water courses and consideration of mitigation measures to achieve a more natural and maintainable state.

Proposals for natural management such as targeted vegetation planting in upper catchments and along river banks will be supported in appropriate locations where consistent with national and local plan policies and relevant water catchment management plans to reduce flood risk and improve water quality.

- 4.5 As discussed in Section 2, the Site is located in Flood Zone 1 outside the limit of high or moderate fluvial flood risk. With regard to development and flood risk, NPPF states that '*all uses of land are appropriate in this zone*' and the proposed development Site is consistent with SFRA policy preference to locate new development in Flood Zone 1.
- 4.6 In relation to flood risk vulnerability, the proposed development would be classified as '*less vulnerable*' development. NPPF Guidance (Table 3) confirms that less vulnerable development is considered to be '*appropriate development*' in Flood Zone 1. The NPPF

confirms that consideration of flood risk issues in Flood Zone 1 should focus on vulnerability to other sources of flooding and the potential to increase flood risk elsewhere due to hard surfaces and the effect of new development on surface runoff.

Policy LP28

Drainage

The presumption is that Sustainable Drainage Systems (SuDS) will be used to assist in achieving the following on each site:

- a. for proposals on greenfield sites, typical greenfield run-off rates should not be exceeded;
- b. for proposals on brownfield sites there should be a minimum 30% reduction in surface water run-off where previous positive surface water connections from the site can be proven. New connections will be subject to at least greenfield restrictions;
- c. No negative impact on local water quality and improvements in water quality where practicable;
- d. Consider whether proposed open spaces and green infrastructure within sites can contribute to the sustainable drainage of the site.

Local conditions including the existence of critical drainage areas may require a lower run-off rate to be agreed to reflect volume control, local surface water risks, water course capacity and flood risk further downstream.

There will be a general presumption against pumping surface water. It must also be demonstrated that the surface water management solution is designed to meet requirements over the lifetime of the development including evidence that management and maintenance arrangements have been secured to cover that period. This includes ensuring proposals to store water meet national standards and latest best practice.

Flow paths accommodating water from outside the site or due to an exceedance event should be designed to avoid buildings and curtilages.

Development will only be permitted if it can be demonstrated that the water supply and waste water infrastructure required is available or can be co-ordinated to meet the demand generated by the new development.

- 4.7 With regard to spatial planning policy and the Sequential Test, the development is to be located in an area of lowest flood risk. This is consistent with the objectives of the NPPF and the local authority planning policy. As confirmed by reference to Table 3 of NPPF Guidance the proposed development passes the Sequential Test and there is no requirement to undertake the Exception Test.
- 4.8 As discussed at Sections 5 and 6 of this FRA, the proposed development incorporates management of surface water within the Site boundary by natural infiltration to underlying strata. This is consistent with the principles of SuDS and complies with local authority policy for surface water drainage.
- 4.9 The SFRA reconfirms that, in the absence of fluvial flood risk, Flood Zone 1 FRA's should primarily focus on management of surface water to demonstrate that there is no risk of surface water flooding to the development and that the development would not lead to an increase in surface water flood risk elsewhere. Further details regarding Site surface water management are provided at Section 6 of this FRA.

5. Flood risk assessment

Flood mechanisms

- 5.1 Environment Agency flood zone maps indicate that the Site is not at risk of fluvial flooding in response to either the 1 in 100 year or 1 in 1000 year flood event in local surface watercourses. NPPF Guidance suggests that consideration should be given to Site vulnerability to other potential sources of flooding including:
- flooding from groundwater;
 - flooding from sewer systems;
 - flooding from surface water drainage.

Groundwater flood risk

- 5.2 The Site is covered by the British Geological Survey (BGS) groundwater flood risk mapping. The map indicates that there is 'limited potential for groundwater flooding to occur' at the Site.
- 5.3 British Geological Survey (BGS) mapping of the area indicates that the Site is underlain by Lower Coal Measures bedrock consisting of mudstone with subordinate sandstones and thin coals. Quarry workings would be primarily established in a weathered mudstone formation with two relatively thin sandstone units and thin coal horizons. There is no record of superficial deposits above the bedrock.
- 5.4 Lower Coal Measures strata at the Site and surrounding area are designated Secondary A Aquifers, by the Environment Agency. However, it is generally accepted that coal measures mudstones are rarely productive, and hence the Secondary A Aquifer designation is usually related to the more permeable sandstone units. The absence of any superficial cover results in a Site-wide groundwater vulnerability designation of medium-high.
- 5.5 The presence of discrete sandstone horizons, within low permeability mudstone formations, and the presence of extensive local faulting tends to result in both vertical and lateral partitioning of local groundwater systems. As a result, groundwater systems in faulted coal measures strata tend to be localised with discharge to the surface water system influenced by stratigraphic boundaries and fault location.
- 5.6 The base of the proposed workings will extend through a thin water-bearing sandstone unit with the expectation that groundwater would enter the workings and require removal by pumped abstraction to a water treatment area located at surface. Groundwater inflow rates are expected to be low and effectively managed by drainage to a small internal sump. On this basis the proposed development is not considered to be at risk of groundwater flooding.

Sewer flood risk

- 5.7 The proposed north western extension area is situated in a rural location with limited development in the immediate vicinity. No evidence has been found of stormwater or foul water sewer infrastructure within the Site boundary. The Site is elevated above local transport infrastructure. As a consequence, the proposed development Site is considered to be at low risk of flooding from sewer surcharging or other stormwater drainage infrastructure.

Surface water flood risk

- 5.8 The proposed development would consist of a below ground excavation. All surface water entering the Site, either as a consequence of direct rainfall or due to runoff from surrounding land, would drain to the lowest point in the workings for collection and removal, as required, to the water treatment area, prior to off-Site discharge. The exceptionally high storage volume within the workings would ensure that surface water could be managed within the Site without risk of flooding or property or people.
- 5.9 Following restoration of the Site to original ground level by placement of quarry backfill and inert materials, it is anticipated that Site drainage characteristics will be comparable to the Site at present, with potential for slow infiltration to underlying strata and surface water runoff to East Hill Beck, as at present, following peak flow regulation and attenuation. It is therefore concluded that the proposed development is at low risk of surface water flooding.

Climate change

- 5.10 Rainfall intensity is expected to increase in future years in response to climate change. With high stormwater storage capacity within quarry excavations progressive increase in rainfall depth and subsequent surface water volume would have no adverse effect on the ability to manage surface water within the Site boundary without risk to people or property.

6. Surface water drainage strategy

Surface water management

- 6.1 In addition to the requirement to consider flood risk to the development it is also necessary to consider the implications of development on flood risk in the surrounding area. In particular, it is necessary to demonstrate that surface water generated from the proposed development can be sustainably managed without introducing risk of flooding to the Site or surrounding land.
- 6.2 In accordance with the requirements of the NPPF and Kirklees Council planning policy, surface water will be managed at the Site through installation and operation of a Sustainable Drainage System (SuDS) based on discharge to underground strata. Current National Standards³ for Sustainable Drainage Systems (National Standards - Defra 2015) require that, where reasonably practicable, all new developments are to be equipped with sustainable drainage systems (SuDS) that are approved by the Local Lead Flood Authority (LLFA) under the terms of the Flood and Water Management Act 2010.

Sustainable Drainage Systems (SuDS)

- 6.3 Basic standards for SuDS design at previously developed sites is stated in the current Defra Non-statutory technical standards (NSTS) for sustainable drainage systems⁴ as follows:

³ Defra 2015. *National Standards for sustainable drainage systems*. March 2015. Defra

⁴ Defra 2015. *Sustainable Drainage Systems: Non-statutory technical standards for sustainable drainage systems*. March 2015

S2 For greenfield developments, the peak runoff rate from the development to any highway drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield runoff rate for the same event.

S4 Where reasonably practicable, for greenfield development, the runoff volume from the development to any highway drain, sewer or surface water body in the 1 in 100 year, 6 hour rainfall event should never exceed the greenfield runoff volume for the same event.

6.4 Sustainable drainage systems are generally based on a stormwater management train that assigns priority to local control of surface water. SuDS systems should be designed to optimise control at the earliest stage in this sequence.

1. Prevention: Good site management, best practice approaches to minimise the risk of flooding or migration of pollutants to surface water;
2. Source control: control of runoff at or close to the source using permeable surfaces, filter trenches or swales etc.;
3. Site control: local facilities that receive surface runoff to attenuate off-site discharge i.e. balancing ponds etc.;
4. Regional Control: larger ponds and wetlands used to control flow and quality prior to final discharge to receiving water.

6.5 National Standards define the appropriate SuDS approach to final discharge destination as the following in order of preference:

1. Discharge into the ground
2. Discharge to a surface water body
3. Discharge to a surface water sewer
4. Discharge to a combined sewer

6.6 During extractive operations at the Site, surface water runoff from Site surfaces would drain to the excavation area with pumped removal to the surface-located water treatment area, prior to controlled off-site discharge to East Hill Beck. The Site will be backfilled with relatively low permeability materials that will be unsuitable for use of infiltration devices for surface water management. The proposed restoration scheme is designed to promote effective drainage of surface water to the off-Site outfall to the upstream end of East Hill Beck, as shown on the restoration scheme drawing at Appendix A. Therefore, during all stages of development, excess surface water would discharge to a surface water body in accordance with the highest suitable SuDS priority.

6.7 The Site is underlain by low permeability coal measures mudstone, with no superficial cover and limited potential for rainfall infiltration. Following restoration, the Site would be underlain by compacted backfill consisting of overburden and inert waste materials. The restored Site is therefore likely to retain low infiltration capacity, comparable to the Site at present. On that basis the Site would continue to drain at the current greenfield rate.

7. Residual risk

- 7.1 The assessment documented in this report has incorporated identification of potential flooding mechanisms and confirmed that the proposed development is at low risk of flooding from fluvial, groundwater, surface water and sewer sources. The proposed SuDS-based surface water management scheme can be established in compliance with national guidance and local authority policy to ensure that the development will have no adverse impact on flood risk in the surrounding area.
- 7.2 In the absence of risk to the Site or surrounding area there is no requirement for any additional flood risk mitigation or management measures for the proposed development.

8. Summary and conclusions

- 8.1 This Flood Risk Assessment has been prepared to support a planning application for eastern extension to Bromley Farm Quarry, Upper Cumberworth, West Yorkshire. This assessment has been prepared by S M Foster Associates Limited following a hydrological survey, analysis of available hydrological data sources and flood hazard review. The assessment has resulted in the following conclusions:
- The site is fully located in Flood Zone 1 and therefore at low risk of fluvial flooding. The development is classed as 'less vulnerable' development which is defined as 'appropriate development' in Flood Zone 1. The development passes the Sequential Test with no requirement to pass the Exception Test.
 - Flood hazard analysis has demonstrated that the development is at low risk of flooding from groundwater, surface water or sewer sources. The proposed SuDS-based surface water drainage scheme will ensure that all surface water is managed within the Site and discharged to an open water body with no increase in flood risk at the Site or elsewhere.
 - In the absence of risk to the Site or surrounding area there is no requirement for any additional flood risk mitigation or management measures for the development. The development can be established in full compliance with the National Planning Policy Framework and local authority policy related to development and flood risk.

For S M Foster Associates Limited

Redacted

Stephen M Foster
BSc MSc CGEOL MCIWEM CSI CEnv FIQ
Principal Consultant

Drawings



Approximate site boundary

CLIENT:

Silkstone Environmental Ltd

PROJECT:

PROPOSED EASTERN EXTENSION,
BROMLEY FARM QUARRY, UPPER
CUMBERWORTH, WEST YORKSHIRE

FLOOD RISK ASSESSMENT

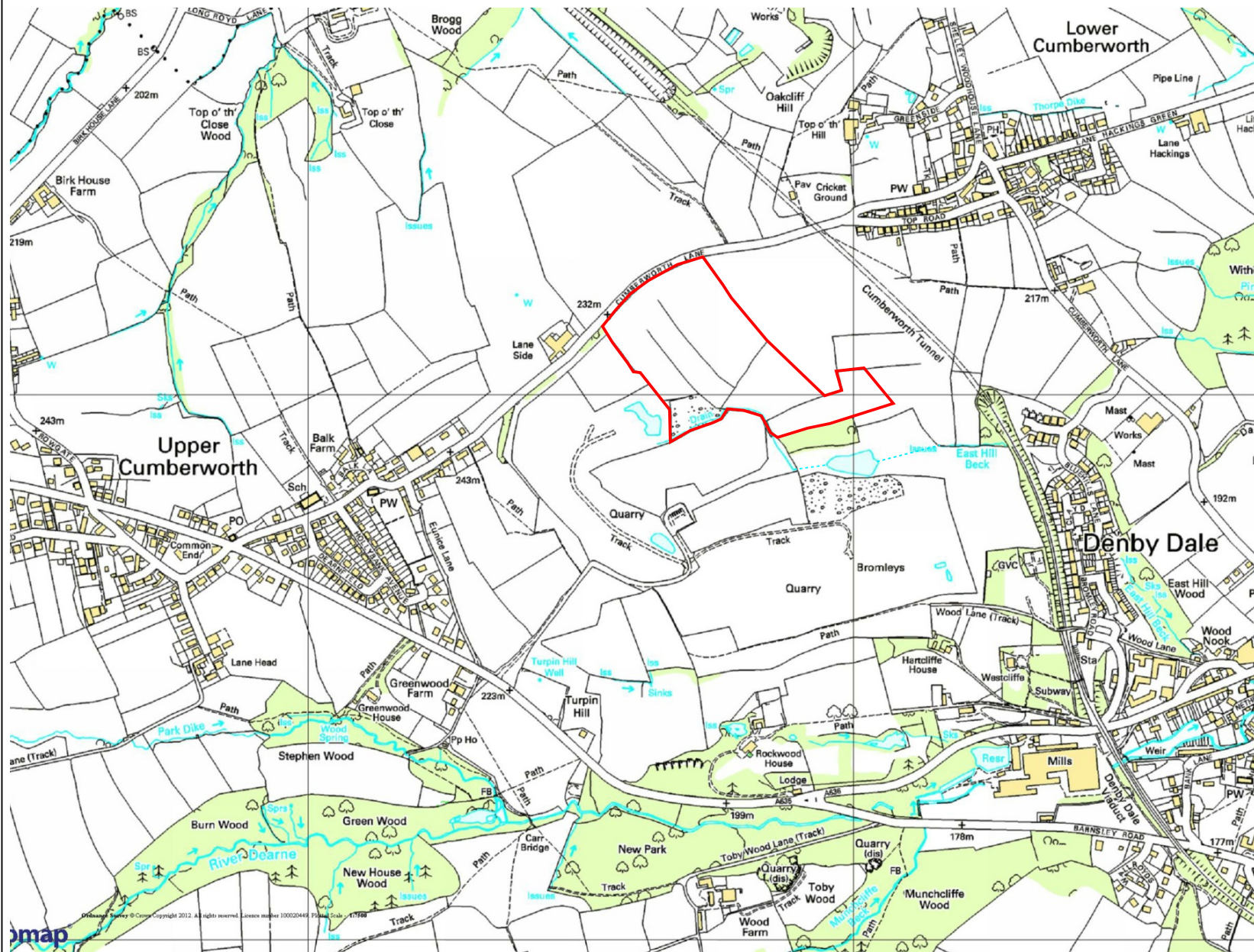
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Date: December 2022

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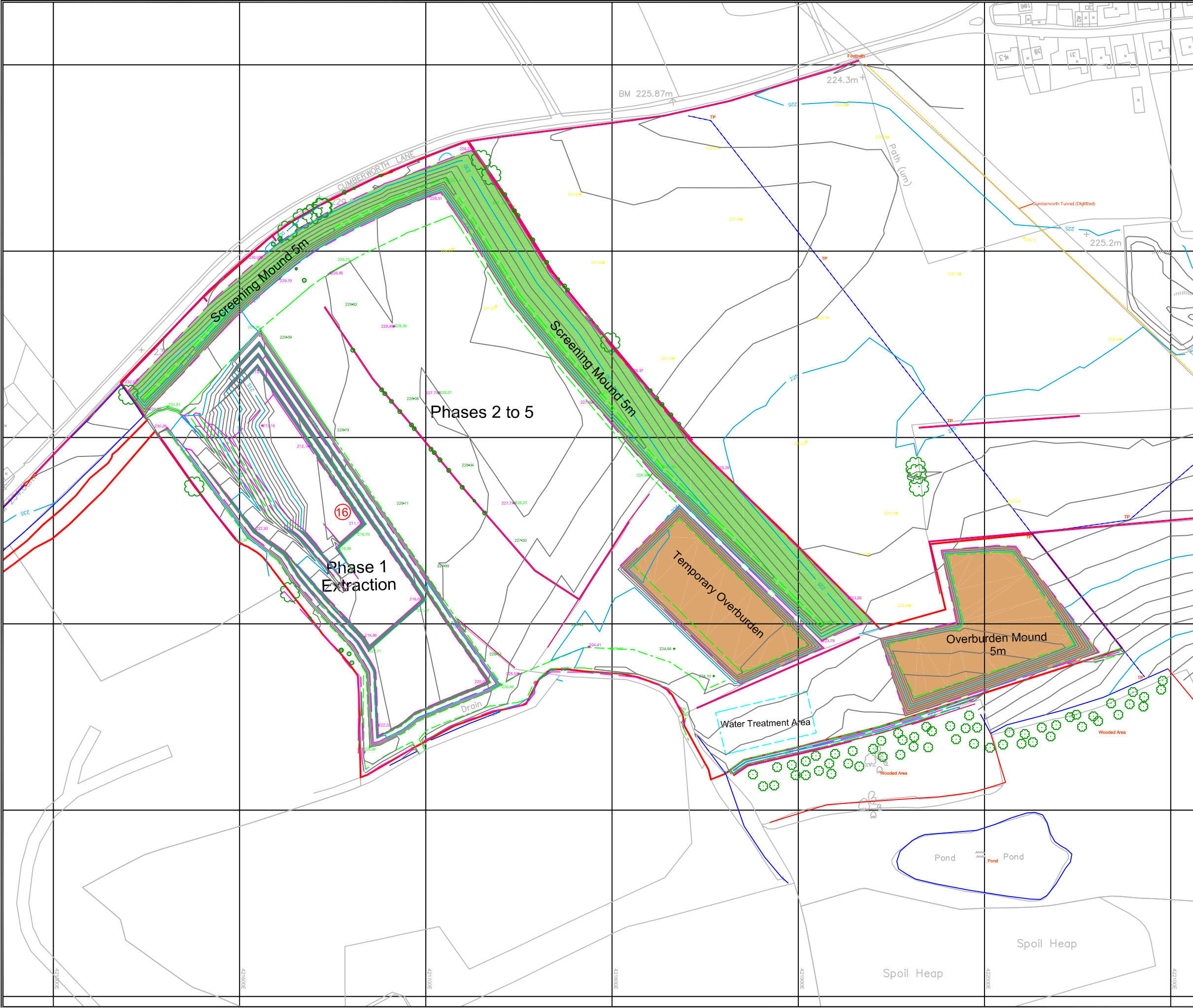
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DRAWING 033/56/01
SITE LOCATION AND
HYDROLOGY



Appendix A

Development & Restoration Scheme



Planning Application Area (8.4 Hectares)

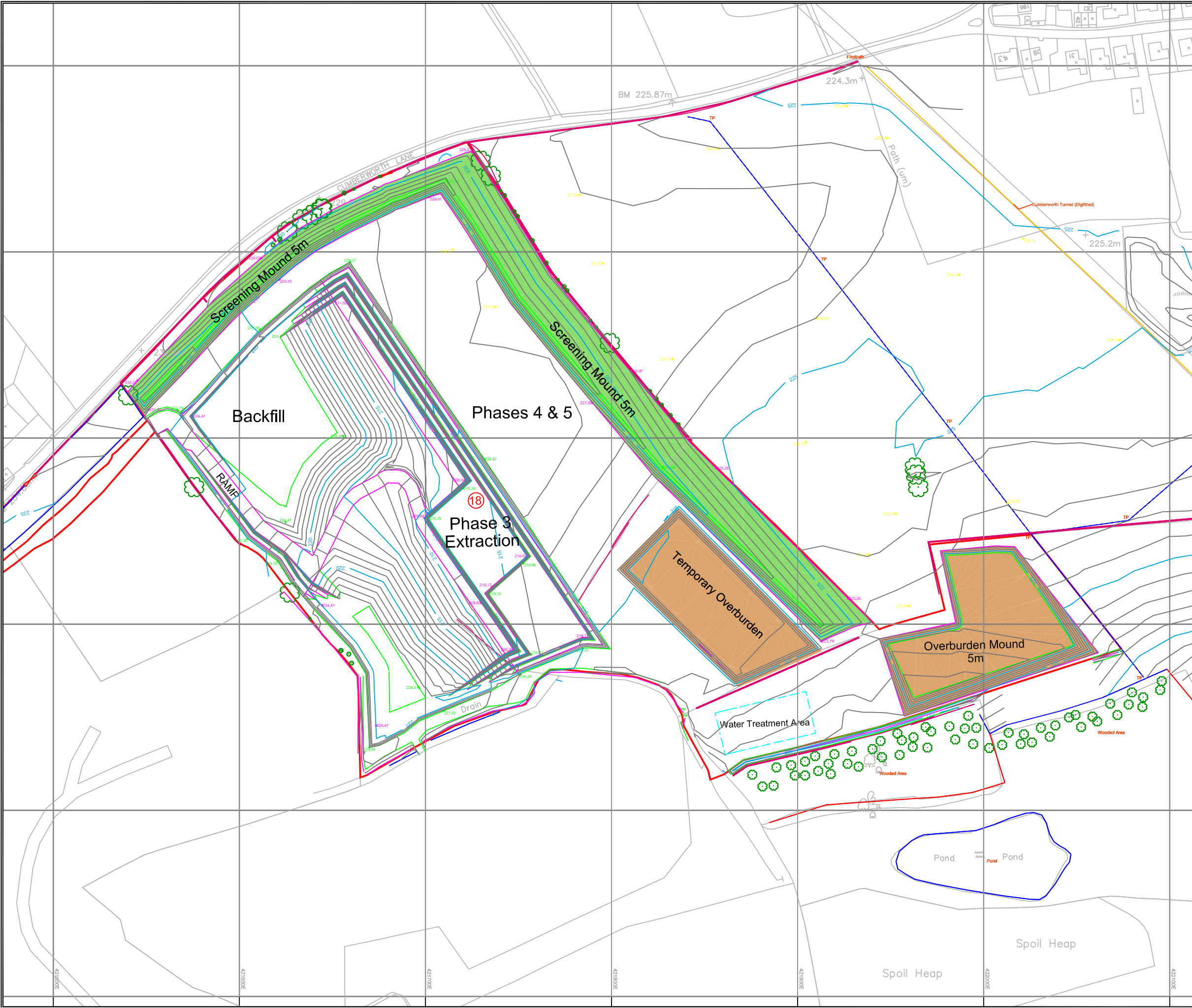
Top soil and subsoil screening mound

Overburden storage mound

16

Depth of Base

Rev	Description	Date	Drawn	Chkd
Client:				
				
Project:				
BROMLEY FARM QUARRY EXTENSION				
Plan Title:				
PHASE 1 EXTRACTION				
Silkstone Environmental Ltd www.silkstoneenvironmental.co.uk 7, Hall Annex, Thorncliffe Park, Chapeltown, Sheffield, S35 2PH Tel (0114) 2573487 Fax (0114) 2573459				
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Planning Application Area (8.4 Hectares)

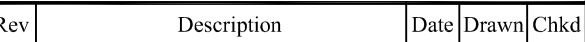
Top soil and subsoil screening mound

Overburden storage mound

16

Depth of Base

Rev	Description	Date	Drawn	Chkd
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Project:				
BROMLEY FARM QUARRY EXTENSION				
Plan Title:				
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BROMLEY FARM
QUARRY EXTENSION

PHASE 5 EXTRACTION

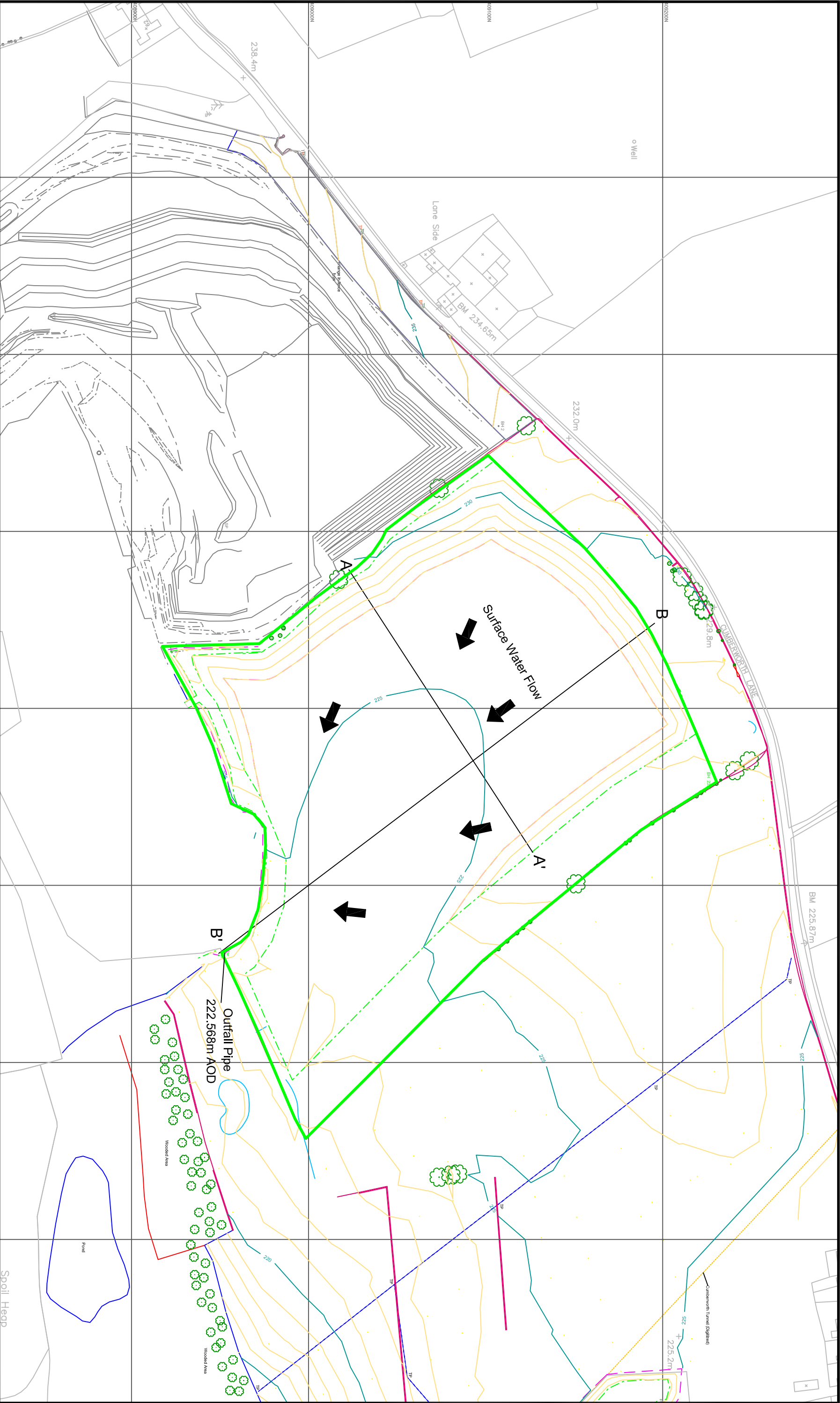
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7, Hall Annex, Thorncliffe Park, Chapeltown, Sheffield, S35 2PH
Tel (0114) 2573487 Fax (0114) 2573459

Rev

Scale: 1:2000 @ A3

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Silkstone

Environmental Ltd

www.silkstoneenvironmental.co.uk
7, Hall Amex, Thorncliffe Park, Chapelown, Sheffield, S35 2PH
Tel (0114) 2573487 Fax (0114) 2573459



Waste Recovery Area



Normal contour (mAOD)



Prominent contour (mAOD)

A A'

Cross section location

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Rev	Description	Date	By	Chkd
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Client:



Project: BROMLEY FARM EXTENSION

Plan Title: Proposed restoration profile

Drawing No. 14138/600

Rev

Project No. 14138

Date: Mar '15

Scale: 1:2000 @ A3

Drawn: MS

Chkd: PS