

Chesterfield to Willington

Environmental Impact Assessment Scoping Report
Volume 2: Appendices

October 2024



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Appendix 1A. Competent Expert Statement

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Appendix 1A Competent Expert Statement

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1A.1 Introduction

- 1A.1.1.1 The Scoping Report and supplementary materials produced for the Project have been prepared by a team of competent experts. The team is made up of technical specialists working at Arcadis who have extensive experience in environmental impact assessment (EIA) processes for a variety of major projects. The individual experts can demonstrate their competence through their education and qualifications, membership of relevant professional institutions and practical experience in undertaking EIAs.
- 1A.1.1.2 **Table 1A 1.1** outlines the team, their education and qualifications, and membership of relevant professional institutions.

Table 1A 1.1 – Credentials of the Experts Responsible for the Project Scoping Documents

Discipline	Credentials
Discipline Topics	
Environmental Impact Assessment Management and Lead Reviewers	<p>Over 18 years of experience in environmental and planning consulting, including the management of numerous EIA studies across a wide range of sectors including energy, highways, transit, buildings, and water/wastewater and across the UK and Canada.</p> <p>MSci. Geography</p> <p>Project Management Professional (PMP)</p> <p>Over 23 years of experience in environmental consulting, including the management of numerous EIA studies across a wide range of sectors including energy, highways, rail, property, and water/wastewater, across the UK.</p> <p>BSc (Hons) Biology</p> <p>MSc Environmental Technology</p> <p>Full Member of the Institute of Environmental Management and Assessment (MIEMA)</p> <p>Chartered Environmentalist (CEnv)</p>
Landscape and Visual	<p>Over 20 years of experience in consulting, undertaking Landscape/ Townscape & Visual Impact Assessments, Landscape Character Assessments and Green Infrastructure Planning in support of planning applications and EIAs.</p> <p>BA (Hons) Landscape Architecture</p> <p>Post Graduate Diploma Landscape Architecture (PG Dip LA)</p> <p>Chartered Member of the Landscape Institute (CMLI)</p>

Discipline	Credentials
Ecology and Biodiversity	<p>Over 13 years' experience as an ecologist, undertaking Ecological Impact Assessments, Biodiversity Net Gain Assessments, Ecology survey design/ implementation and development of protected species mitigation strategies. Emma also holds a survey licence to work with great crested newts and has held a number of protected species development licences.</p> <p>BSc (Hons) Biology Full member of The Chartered Institute of Ecology and Environmental Management (MCIEEM)</p>
Historic Environment	<p>Over 25 years of experience working in archaeology/cultural heritage including 7 years in consultancy. Experience in preparing Cultural Heritage Impact Assessments, Environmental Impact Assessments, Listed building and Scheduled Monument Consent applications and Mitigation strategies. Highly competent in managing archaeological fieldwork and carrying out stakeholder engagement.</p> <p>BA (Hons) Archaeology and Ancient History MA Archaeological Heritage Management Member of the Chartered Institute of Archaeologists (MCIfA)</p>
Hydrology and Land Drainage	<p>Over 20 years' experience in hydrological modelling and the preparation of Flood Risk Assessments, Water Framework Directive assessments and EIA, including for NSIP Projects, having supported several through Examination in recent years.</p> <p>BSc (Hons) Environmental Biology MSc Water Management Member of the Chartered Institution of Water and Environmental Management (MCIWEM)</p>
Geology and Hydrogeology	<p>Over 20 years' experience in land quality assessments, undertaking EIAs and specifically the preparation of geology / ground condition chapters including NSIP Projects.</p> <p>BSs (Hons) Chemical Physics MSc Environmental Technology Member of the Chartered Institution of Water and Environmental Management (MCIWEM) Chartered Water and Environmental Manager (CWEM) Chartered Scientist (CSci) Chartered Environmentalist (CEnv)</p>

Discipline	Credentials
Agriculture and Soils	<p>Member of The Society of Brownfield Risk Assessment (SoBRA)</p> <p>Over 30 years' experience undertaking soil and agricultural land classification surveys and assessing the impact of construction and development activities on soils and agricultural practices, including the development of appropriate soil handling strategies and practices</p> <p>BSc Forestry and Soil Science</p> <p>PhD in Soil Science</p> <p>Chartered Environmentalist</p> <p>Fellow of the British Society of Soil Science</p>
Traffic and Transport	<p>Over 20 years' experience in the field of Transport Planning and Engineering. Experience in cycle and Non-motorised user audits, transport assessments, temporary traffic management, road safety design, EIA traffic and transport chapters and Outline Construction Traffic Management Plans</p> <p>BSc (Hons) Geography</p> <p>Chartered member of The Chartered Institute of logistics and Transport (CMILT)</p> <p>Member of The Society of Road Safety Auditors (MSoRSA)</p>
Air Quality	<p>Over 14 years of experience in the field of air quality undertaking Dispersion Modelling (ADMS-Urban & AERMOD), Air Quality Monitoring and Air Quality Assessment Methodologies.</p> <p>Bsc (Hons) Geography</p> <p>MSc (Hons) Air Pollution Management and Control</p> <p>Member of the Institute of Air Quality Management (MIAQM)</p> <p>Member of the Institute of Environmental Sciences (MIEnvSc)</p>
Noise and Vibration	<p>Over 28 years within Noise and Vibration Consulting. Experience undertaking Noise and Vibration Monitoring, Noise Impact Assessments and Construction Noise Assessments in support of planning applications and EIAs.</p> <p>BSc (Hons) Geology</p> <p>Member of the Institute of Acoustics (MIOA)</p>
Socio-economics, Recreation and Tourism and Health and Wellbeing	<p>Over 25 years experience in undertaking a variety of assessments focused on socio-economics, community, health and equalities in support of planning applications, as part of Environmental</p>

Discipline	Credentials
	Impact Assessments and as standalone reports. Experienced in assessments to support Development Consent Orders, including as Expert Witness for Health and Wellbeing during Examination.
	BA (Hons) Geography, MSc City and Regional Planning, Member of the Royal Town Planning Institute.

Appendix 4A. Initial Outline Code of Construction Practice

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Appendix 4A Initial Outline Code of Construction Practice

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4A.1 Introduction

4A.1.1 Background

4A.1.1.1 The Chesterfield to Willington Project (the 'Project') is a proposal by National Grid Electricity Transmission plc (NGET) to reinforce the transmission network in the East Midlands region. The Project will establish a new 400 kilovolts (kV) transmission connection between a new 400 kV Chesterfield Substation and the existing Willington Substation. The connection is expected to wholly or largely comprise of a new overhead line.

4A.1.1.2 The Project is at an early stage of development and therefore the detailed design is not fully understood yet, however the Project is likely to comprise of the following components, as described further in **Chapter 1: Introduction** and **Chapter 4: Project Description** of the Environmental Impact Assessment (EIA) Scoping Report and shown in **Figure 1.1: Location / Context** in **Volume 3**:

- A new 400 kV overhead line route, approximately 60 kilometres (km) in length between a proposed new Chesterfield Substation and the existing Willington Substation. It is anticipated that this would comprise steel lattice pylons in accordance with National Grid's guidance and national planning policy.
- Replacement of short sections of existing transmission line (overhead line) and local changes to the lower voltage distribution networks to facilitate the construction of the Project.
- Works to facilitate the connection of a new overhead line into a new proposed 400 kV Chesterfield Substation and at the existing 400 kV Willington Substation.
- Potential cable sealing end compounds (SEC) and installation of underground cable sections for the Project using open cut and trenchless techniques such as horizontal directional drilling.
- Potential permanent accesses to facilitate maintenance.
- Temporary works associated with the construction of the Project such as site compounds, haul roads and accesses.
- Potential utility diversions and / or modifications may also be required to facilitate the construction of the Project.

4A.1.1.3 In addition, third party utilities diversions and / or modifications may also be required to facilitate the construction of the Project. Further details would be included within the Environmental Statement (ES).

4A.1.1.4 The Project would connect into the existing Willington Substation and a proposed new substation at Chesterfield. The intention is for the new substation to be consented and delivered under a separate NGET project (Brinsworth to High Marnham). However, notwithstanding the default position being that such works would not be incorporated as part of this Project, there remains the possibility that they would be incorporated on a 'fall-back' basis to guard against any risk of delay to the delivery of this Project. In view of this potential inclusion, the new substation and its potential environmental effects have been considered in this Scoping Report (where applicable) for completeness. Any environmental mitigation and

management measures that will be undertaken during construction of the Project associated with the new 400 kV Chesterfield Substation are therefore included within this Initial Outline Code of Construction Practice.

4A.1.2 Purpose of the Initial Outline Code of Construction Practice

- 4A.1.2.1 This is the Initial Outline Code of Construction Practice (CoCP) for the Project, which has been produced to support the Environmental Impact Assessment (EIA) Scoping Report. It has been produced to set out the environmental mitigation and management measures that will be undertaken during construction of the Project if the Development Consent Order (DCO) is granted. The CoCP aims to ensure that adverse effects from the construction phase of the Project, on the environment and local communities, are minimised and controlled appropriately.
- 4A.1.2.2 It will be updated as the Project evolves to include additional environmental mitigation measures identified through the engineering design, the EIA process and from engagement with stakeholders. An Outline CoCP will be submitted as an appendix to the ES as part of the application for development consent. The CoCP will be developed and finalised as part of the DCO examination process. Compliance with the approved CoCP will be secured by requirements specified within the DCO.
- 4A.1.2.3 It is assumed that environmental mitigation measures in the Outline CoCP will be in place before undertaking the assessment. This will enable the assessment to be proportionate and focused on the likely significant effects that would be material to the decision. This is in accordance with The Institute of Environmental Management and Assessment's 2016 guidance document, 'Delivering Quality Development' (Ref 4A.1).
- 4A.1.2.4 The Project will be delivered in compliance with all relevant legislation, consents and permits. Any statutory requirements listed in this document and industry good practice guidance which has informed each part of the document are not to be seen as exhaustive.
- 4A.1.2.5 National Grid will put in place robust procedures to audit and inspect the Project, including its supply chain of contractors, to ensure the mitigation measures set out in the Outline CoCP are implemented when constructing the Project. The Outline CoCP will apply to all aspects of the Project delivered pursuant to the DCO, during construction.

4A.1.3 Preparation of the Code of Construction Practice

- 4A.1.3.1 This section describes the three-stage iterative approach to developing the Initial Outline CoCP into the CoCP that will implement throughout the construction of the Project.
- 4A.1.3.2 **Plate 4A1.1** provides an overview of the stages for the development of the CoCP.

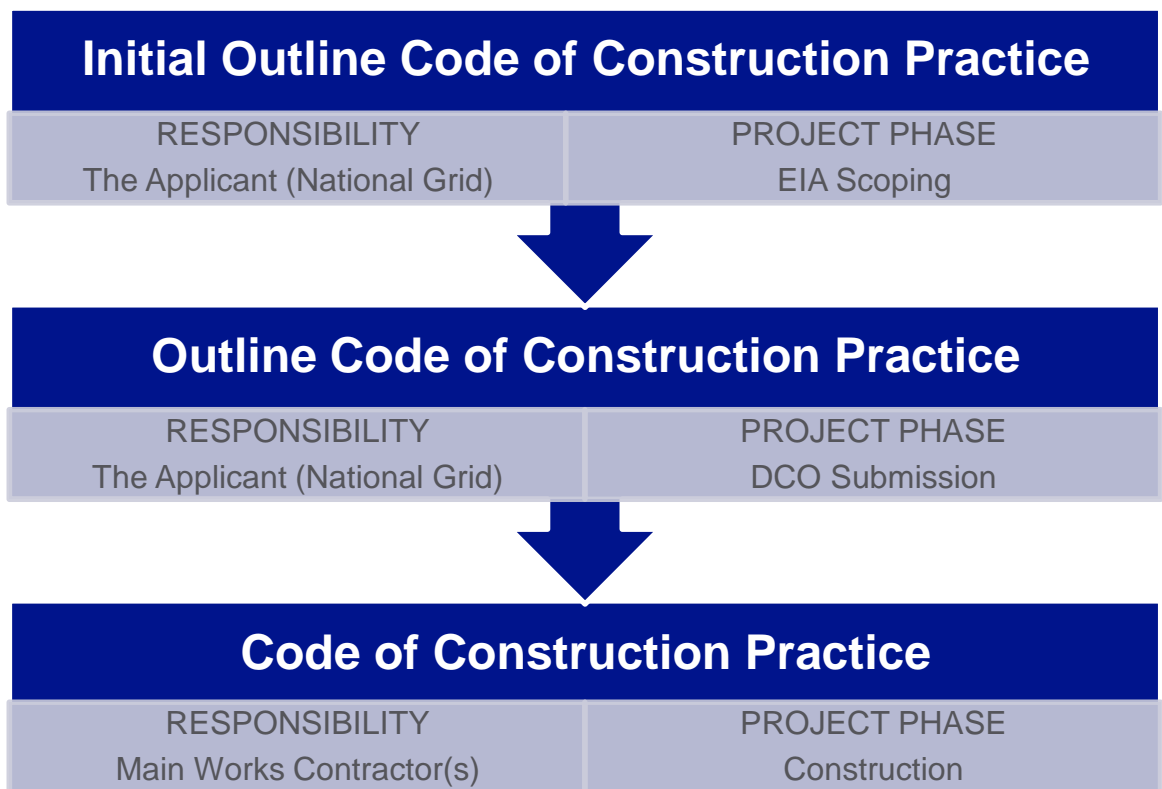


Plate 4A1.1 – Development of the Code of Construction Practice

Stage 1: Initial Outline Code of Construction Practice

- 4A.1.3.3 This document has been produced to support the Scoping Report and to identify the mechanism in which the Project will capture and present the environmental mitigation measures that are required to manage, minimise and mitigate the environmental effects of the Project.

Stage 2: Outline Code of Construction Practice

- 4A.1.3.4 The Initial Outline CoCP will be developed into the Outline CoCP and submitted as part of the DCO application.
- 4A.1.3.5 The Outline CoCP will be prepared in parallel with the preliminary design, proposed construction methodology and the EIA. Environmental mitigation measures within the Outline CoCP will include proposed design and construction mitigation which is identified through the technical assessments reported in the ES.
- 4A.1.3.6 In addition, a number of outline Environmental Control Plans (ECPs) will be developed and appended to the Outline CoCP.

Stage 3: Code of Construction Practice

- 4A.1.3.7 The Outline CoCP will be developed into the CoCP by the Main Works Contractor(s) prior to construction and would be adhered to throughout the construction phase.

- 4A.1.3.8 The CoCP will include specific organisational information such as organograms, contact details of the Environmental Managers / Environmental Clerks of Works (EnvCoW) and specific organisational commitments.
- 4A.1.3.9 The Outline ECPs will be developed by the Main Works Contractor(s) prior to the commencement of construction into final control plans. Where relevant the ECPs will include contractor specific working methodologies.

4A.1.4 Compliance with the CoCP

- 4A.1.4.1 Compliance with the CoCP will be secured by requirement(s) in the DCO (together with being a contractual obligation the appointed Main Works Contractor(s) will have to follow). The CoCP and associated ECPs will be prepared to discharge the Requirement(s) in the DCO. There may be more than one submission e.g. if the Project is split into sections, construction is phased etc.

4A.1.5 Construction Schedule

- 4A.1.5.1 Subject to gaining development consent, construction works would be expected to start in 2028 and the Project is anticipated to be operational in 2032.

4A.1.6 Roles and Responsibilities

Early Contractor Involvement

- 4A.1.6.1 The Project will benefit from the Great Grid Partnership which has been established by National Grid to assist in delivering the new electricity network infrastructure required for an initial nine Accelerated Strategic Transmission Investment (ASTI) projects. The partnership will provide supply chain coordination from major Main Works Contractor(s) with a focus on network design and construction. This will provide the Project with early involvement of construction contractors during the pre-application stage, bringing forward specialist contractor knowledge and expertise to inform design and production of key project deliverables such as the Construction Environmental Management Plan (CEMP).

Environmental Management Systems

- 4A.1.6.2 The Project will implement management processes and briefings so that the works are carried out in accordance with current legislation and guidance at the time of construction. This will be achieved by application of well-established work processes that apply the recognised British Standard (BS) EN ISO 14001:2015 (Ref 7A.2) or equivalent.
- 4A.1.6.3 The Main Works Contractor(s) will have an Environmental Policy that meets the requirements of ISO 14001 or equivalent, through their internal Business Management System procedures. The policy statement will be displayed on the site notice boards, publicised to all site staff and operatives, and made available to interested parties upon request.

Project Responsibilities

- 4A.1.6.4 A management structure that includes an organisational chart encompassing all staff roles responsible for environmental work would be included within the Outline CoCP. This will set out the respective roles and responsibilities with regards to the environment and identify the nominated Construction Environmental Manager(s).
- 4A.1.6.5 Illustrative key roles and responsibilities are set out in **Table 1.1**.

Table 1.1 – Illustrative Key Roles and Responsibilities for the Project

Role	Likely Organisation	Responsibilities
Environmental Manager(s)	National Grid / Main Works Contractor(s)	The Environmental Manager(s) will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental mitigations are implemented on site and as recorded within the CoCP. They will be the main point of contact for all environmental matters on the Project. They will also develop good working relationships with external stakeholders such as the Environment Agency, Natural England, and the relevant planning authorities.
Environmental Clerk of Works (EnvCoW)	Main Works Contractor(s)	The EnvCoW(s) will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required mitigation measures. The EnvCoW will be supported by appropriate technical specialist advisors depending on the location, activity and potential effects.
Ecological Clerk of Works (ECoW)	Main Works Contractor(s)	The ECoW(s) will monitor the works to ensure compliance with any licenses, permits and consents obtained to avoid effects on protected species and habitats, along with ensuring compliance with environmental legislation. The ECoW will oversee ecological pre-construction surveys and will also manage ecological operatives engaged in ecological mitigation activities – such as undertaking ecological watching briefs and translocation of protected species.
Arboricultural Clerk of Works (ACoW)	Main Works Contractor(s)	The ACoW(s) will monitor works conducted by a suitably qualified and experienced arborist to/within proximity to high grade trees, including trees under Tree Preservation Orders and veteran trees, to ensure relevant control and mitigation measures are in place to protect these trees.
Permits and Consents Manager(s)	Main Works Contractor(s)	The Permits and Consents Manager(s) will collaborate with the Environmental Manager to draft and submit permits and consents on

Role	Likely Organisation	Responsibilities
Works Supervisor(s)	Main Works Contractor(s)	behalf of the Project, track the progress, provide updates, and communicate approvals.
Land Officer(s)	Main Works Contractor(s)	The Works Supervisor(s) will be responsible for delivering the works in accordance with the requirements of the CoCP and implementing good environmental practices required by the Environmental Manager(s). They are responsible for managing operatives, plant, and their areas of work in accordance with the principles of good environmental practice.
Technical Specialist Advisors	Main Works Contractor(s)	The Land Officer will have an agricultural background and experience of working with utility companies. They will provide a single point of contact between the Main Works Contractor(s) and the landowner/occupier of the land. They will be responsible for delivering site access in line with pre-agreed timescales, help facilitate the dialogue between the Main Works Contractor(s) and the landowner/occupier as necessary and will be the first point of contact for any issues escalated by the landowner/occupier or the Main Works Contractor(s). They will be responsible for witnessing and agreeing all land condition surveys conducted by the Main Works Contractor(s).
Technical Specialist Advisors	Main Works Contractor(s)	Individuals with relevant professional experience to supervise the relevant aspects of the works, which might include an arboriculturist, land contamination specialist, soil specialist, ecologist, or archaeologist.

4A.2 Environmental Mitigation Measures and Commitments

4A.2.1 Introduction

- 4A.2.1.1 Good practice mitigation measures have been identified that would reduce impacts from the Project on the environment and are presented in **Table 2.1**. These are generally measures that would normally be implemented on a well-run construction site, but also include good practice mitigation that has been identified through the EIA scoping process. They also include measures that have typically been employed on other National Grid projects. Good practice mitigation measures in **Table 2.1** are assigned a reference number, for example (GG01) for ease of cross-reference.
- 4A.2.1.2 **Table 2.1** will be updated within the Outline CoCP (submitted with the DCO application) to include all embedded, standard and additional mitigation required during construction. A definition of the mitigation types is provided in **Chapter 5: EIA Approach and Methodology**. Mitigation measures within the Outline CoCP will be consistent with mitigation Outlined within the ES.
- 4A.2.1.3 The Outline CoCP, once certified by the Secretary of State, will be issued to Main Works Contractor(s), and fed into the relevant contracts for the Chesterfield to Willington construction works. The Main Works contractor(s) will prepare detailed management plans to explain how the mitigation measures provided in the Outline CoCP will be implemented and monitored.
- 4A.2.1.4 Environmental control plans (ECPs) will be prepared to accompany the Outline CoCP, and they will be implemented during the construction of the Project. The ECPs will detail further topic specific environmental mitigation measures to avoid, reduce or compensate for any detrimental effects on the environment for example the Site Waste Management Plan which details how materials will be managed efficiently during construction.
- 4A.2.1.5 Alongside the mitigation measures outlined in **Table 2.1**, the following ECPs have been identified as likely being required within the EIA Scoping Report:
- Should planting be relied upon to mitigate effects, an Outline Landscape and Ecological Management Plan (LEMP), or equivalent would be provided with the DCO application.
 - Draft Heritage Mitigation Strategy or equivalent and Outline Written Scheme of Investigation (WSI).
 - Soil Management Plan (SMP) or equivalent.
 - Outline Construction Traffic Management Plan (CTMP) or equivalent.
 - Construction Environmental Management Plan (CEMP) or equivalent.
 - Pollution prevention plans (these will detail how ground and surface waters would be protected during the construction and operation (including maintenance)).
 - Site Waste Management Plan (SWMP) or equivalent.

- Emergency Action Plan or equivalent.
- Public Rights of Way Management Plan (PRoWMP) or equivalent
- Dust Management Plan (DMP) or equivalent
- Construction Worker Travel Plan (CWTP) or equivalent

4A.2.1.6 The list above is not exhaustive, as the EIA progresses additional environmental control plans may be identified, depending on predicted impacts.

4A.2.1.7 These documents will be included in the application and will be approved as part of the consent. Compliance with the ECPs will be secured through the DCO.

Table 2.1 – Environmental Mitigation and Commitments

Ref ID	Mitigation Measures
General Project Commitments	
GG01	The Project will be delivered in compliance with all relevant legislation, consents and permits.
GG02	The Project will be designed to comply with existing National Grid standards and the guidelines and policies detailed in NPS-EN5 (Ref 4A.3) including the International Commission on Non-Ionizing Radiation Protection guidelines for electric and magnetic fields (EMFs) (Ref 4A.4) and associated precautionary policy.
GG03	The Construction Environmental Management Plan (CEMP) and other ECPs shall include measures to manage environmental nuisance during construction. The contractor(s) shall undertake site inspections to check conformance to the relevant ECPs.
GG04	Suitably experienced Environmental Manager(s) would be appointed for the duration of the construction phase. In addition, qualified and experienced Environmental Clerk of Works would be available during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CoCP. The Environmental Clerk of Work(s) would monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required good practice and mitigation measures.
GG05	<p>Construction workers would undergo training to increase their awareness of environmental issues as applicable to their role on the Project. Topics would include but not be limited to:</p> <ul style="list-style-type: none"> • Location and protection of sensitive environmental sites and features. • Adherence to protected environmental areas around sensitive features. • Working hours and noise and vibration reduction measures. • Agreed traffic routes, access points, etc.
GG06	A record of condition would be carried out (photographic and descriptive) of the working areas that may be affected by the construction activities. This record would be available for comparison following reinstatement after the works have been completed to ensure that the standard of reinstatement at least meets that recorded in the pre-condition survey.

Ref ID	Mitigation Measures
GG07	Land used temporarily will be reinstated where practicable to its pre-construction condition and use (or a condition agreed with the landowner). Hedgerows, fences and walls (including associated earthworks and boundary features) would be reinstated to a similar style and quality to those that were removed, with landowner agreement.
GG08	Where sensitive features are to be retained within or immediately adjacent to the Order Limits, an appropriate protective area will be established using appropriate fencing and signage and would be inspected, repaired and replaced as necessary. The protective areas would be shown on the Retention and Reinstatement Plans contained within the LEMP, or equivalent EPC.
Construction Site Set Up	
GG9	The name and contact details for the Project would be displayed at the entrance to all compounds. This would include an emergency number.
GG10	<p>Appropriate site layout and housekeeping measures would be implemented by the Main Works Contractor(s) at all construction sites. This would include but not be limited to:</p> <ul style="list-style-type: none"> • Preventing pests and vermin control including treating any infestation promptly. • Arrangements for the proper storage and disposal of waste produced on site. • Inspecting and collecting any waste or litter found on site. • Locating or designing site offices and welfare facilities to prevent the overlooking of residential properties where possible. • Locating designated smoking/vaping areas to avoid nuisance to neighbours. • Managing staff/vehicles entering or leaving site, especially at the beginning and end of the working day. • Managing potential off-site contractor and visitor parking to ensure they are safe.
GG11	Any activity carried out or equipment located within a construction compound that may produce a noticeable nuisance, including but not limited to dust, noise, vibration and lighting, would be located away from sensitive receptors such as residential properties or ecological sites where practicable.
GG12	Plant and vehicles would conform to relevant applicable standards for the vehicle type. Vehicles would be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. Where applicable, all plant and vehicles would be required to switch off their engines when not in use and when it is safe to do so.

Ref ID	Mitigation Measures
GG13	Materials and equipment will not be moved or handled unnecessarily. The loading and unloading of materials from vehicles would be controlled, including cable drums and excavated materials.
GG14	Earthworks and stockpiled soil will be protected by covering, seeding or using water suppression where appropriate.
GG15	Bonfires and the burning of waste material will be prohibited.
GG16	A Site Waste Management Plan (SWMP) would be developed prior to construction. The Main Works Contractor(s) would maintain and monitor the SWMP throughout the construction phase and oversee that any sub-contractor(s) adhere to the SWMP. The SWMP would set out, in an auditable manner, how waste will be reduced, reused, managed and disposed of in accordance with the waste hierarchy. Dedicated areas would be identified on the construction plans to allow materials and wastes to be segregated at source, reducing the risk of damage or contamination.
GG17	Where necessary stone pads would be installed in areas where heavy equipment, such as cranes and piling rigs, are to be used. The stone pads would provide stable working platforms and would reduce disturbance to the ground. The stone pad area will be stripped of the soil, which would be stored and reinstated in accordance with the soil management measures contained in the relevant ECPs.
GG18	Working areas would be appropriately fenced. The type of fencing installed would depend on the area to be fenced and would take into consideration the level of security required in relation to the surrounding land and public access, rural or urban environment and arable or stock farming. For some locations the fence used may also serve to provide acoustic and visual screening of the work sites and reduce the potential for disturbance of users in the surrounding areas. Fencing would be regularly inspected and maintained and removed as part of the demobilisation unless otherwise specified.
GG19	Members of the community and local businesses would be kept informed regularly of the works through active community liaison. This would typically include the notification of 'noisy activities', heavy traffic periods and start and end dates of key phasing. A contact number would be provided which members of the public can use to raise any concerns or complaints about the Project. All construction-related complaints would be logged by the Contractor(s) in a complaints register, together with a record of the responses given and actions taken.
Landscape and Visual	
LV01	Undertaking of a landscape pre-condition survey to ensure appropriate reinstatement is undertaken.
LV02	Retention of vegetation and replacement of removed vegetation where practicable.

Ref ID	Mitigation Measures
LV03	Application of tree protection measures in accordance with British Standard (BS) 5837:2012: Trees in relation to design, demolition and construction (Ref 4A.5).
LV04	Reinstatement and / or restoration of temporarily used land following construction.
LV05	Protection of sensitive areas during construction.
LV06	The outline LEMP, or equivalent, would include mitigation measures (where required) such as: <ul style="list-style-type: none"> • Landscape planting to reduce visual impact. • Landscape planting to deliver wider landscape restoration to offset the residual harm by the introduction of new overhead line structures and other associated infrastructure.
LV07	Use of construction lighting with, where possible, the lowest luminosity necessary to safely perform each task, and positioned and directed to minimise glare and light spill towards sensitive visual receptors (in particular residential communities) and skyglow (particularly in respect of landscape character where dark skies may be a characteristic).

Ecology and Biodiversity

B01	The Main Works Contractor(s) would comply with relevant protected species legislation. Appropriate licences would be obtained where necessary from Natural England or the Environment Agency for all works affecting protected species as identified by the ES and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant requirements and conditions set out in those licences.
B02	At sensitive crossing locations (e.g. rivers), existing access routes would be used as far as reasonably practicable and the width of any required working area kept to the minimum required to facilitate the works. If access upgrades are required or a new crossing is needed, preference will be for use of temporary bridges or culverts to be installed.
B03	Where practical, sensitive sites including SSSIs, LNRs, local conservation designations (LWS, pLWS and DWT Reserves), Ancient Woodland, Wildlife Trust and RSPB reserves would be avoided when micro-siting the likely working areas.
B04	Vegetation would be retained where reasonably practicable. To avoid destruction of active bird nests, where practicable, in any areas where vegetation clearance is required such works would be undertaken outside the breeding bird season (outside mid-March-August). Where this is not possible, vegetation removal would be undertaken with prior supervision, of a suitably experienced ecologist, and appropriately managed to remove the risk of damaging or destroying active nests, young or eggs. However, for all breeding birds, should damage, or in the case of Schedule 1 species only, disturbance, be unavoidable, a derogation licence would be obtained from Natural England before proceeding.

Ref ID	Mitigation Measures
B05	In compliance with legal requirements, sensitive removal of vegetation with the potential to support legally protected species (e.g. reptiles) would be used.
B06	Where the works require the crossing or removal of hedgerows, the gap would be reduced to the minimum width required for safe working. Where hedge removals are unavoidable new hedgerow planting on completion of works, will be planted and would include, woody species of local provenance.
B07	In line with good practice, pollution prevention plans or equivalent would be drawn up to detail how ground and surface waters would be protected during construction and operation (including maintenance). These would include information on the storage of any fuels, oils and other chemicals and pollution incidence response planning.
B08	In line with good practice, measures to minimise any risk of effects on ecological features from dust emissions would be informed by the construction dust risk assessment and set out within a Dust Management Plan (DMP) or equivalent. This is likely to include the use of standard dust suppression methods.
B09	Areas of temporary habitat loss would be reinstated, wherever practicable, following the completion of construction in each area. Areas of permanent habitat loss (and temporary habitat loss greater than 2 years) will be considered within the Project's BNG assessment.
B10	A lighting design of all temporary and permanent lighting would be developed once contractors are appointed; however, the principles of lighting design will be detailed at the time of the DCO application and informed by the joint guidance provided by the Bat Conservation Trust and Institution of Lighting Professionals (Institution of Lighting Professionals, 2023 (Ref 4A.5)). The lighting design would account for the potential effects on terrestrial ecology by taking measures to minimise lighting usage, minimise light spill, use the most appropriate wave lengths of light and locate lighting in the most appropriate locations – this is to decrease the potential displacement and disturbance effects on light sensitive fauna such as bats.
B11	The use of tried and tested invasive species control and biosecurity measures, in accordance with Department for Environment, Food and Rural Affairs (DEFRA) guidelines to avoid the spread of non-native invasive species and infested materials would be applied.
B12	Where excavations are left uncovered overnight, a means of escape for mammals should be provided in the form of a ramp, or other means of escape.
B13	Works would be undertaken following precautionary working method statements, where required, to minimise impacts to protected/notable species and habitats. The presence of an Ecological Clerk of Works (ECoW) may also be required, for example checking for active bird nests or safely moving amphibians out of harms way. Specific protected species and/or

Ref ID	Mitigation Measures
	habitats detailed within the precautionary method statement, and the associated mitigation measures, would be informed by the findings of the surveys undertaken to support the development of the ES.
Historic Environment	
HE01	The location of known archaeological remains, or areas where archaeological investigations would be undertaken (i.e. excavations), would be signposted/fenced off to avoid unintentional damage.
HE02	Where a previously unknown heritage asset has been discovered, or a known heritage asset has proven to be more significant than foreseen at the time of application, the Project would inform the Local Planning Authority and discuss a solution that protects the significance of the new discovery, so far as is practicable within the Project parameters.
HE03	Where practicable, maintain elements within the landscape such as vegetation and hedgerows (including re-instating hedgerows, fences and walls).
HE04	Archaeological mitigation in the form of excavation and recording is likely to be required. This will be specified through a draft Heritage Mitigation Strategy, or equivalent, which would include an Outline Written Scheme of Investigation (WSI) submitted with the ES. This would be a single document with the mitigation strategy outlining the different types of mitigation per area and the outline WSI giving the methods.
Hydrology and Land Drainage	
HD01	Securing environmental permits and consents for all qualifying works e.g. dewatering of excavations, working in, over or under main rivers.
HD02	Where practicable, stockpiles of soil would not be stored in close proximity to watercourses.
HD03	Riverbank and in-channel vegetation would be retained where not directly affected by construction works, ecological mitigation and operation of the Project infrastructure. Natural bed substrate would be provided where temporary box culverts are installed to facilitate access and open span crossings of Main Rivers would be installed where crossings for access are required.
HD04	Where construction activities take place in Flood Zone 3, main works construction compounds would be laid out in accordance with the Sequential Approach at the site level and incorporate flood resilience measures where necessary. Storage of construction equipment and materials at active work fronts and in temporary laydown areas would be done in such a way as to avoid forming barriers to floodplain flows.

Ref ID	Mitigation Measures
	The Project will incorporate appropriate surface water drainage measures into its final design for the haul roads, access tracks, works compounds and laydown areas so that they do not lead to a significant increase in flood risk. Temporary haul routes within Flood Zone 3 and areas of high and medium risk of flooding from surface water will be removed at the end of the construction phase and the ground surface will be reinstated to pre-project levels.
HD05	In accordance with Environment Agency guidance, buffers between pylons and watercourses will be adhered to where practicable.
HD06	Fuels, oils and chemicals would be stored responsibly, away from sensitive water receptors. Where practicable, they would be stored >15 m from watercourses, ponds and Groundwater Dependent Terrestrial Ecosystems. Where it is not practicable to maintain a >15 m distance, additional measures would be identified.
HD07	All refuelling, oiling and greasing of construction plant and equipment would take place above drip trays and also away from drains as far as is reasonably practicable.
HD08	Vehicles and plant would not be left unattended during refuelling.
HD09	Appropriate spill kits would be made easily accessible.
HD10	Potentially hazardous materials used during construction would be safely and securely stored including use of secondary containment where appropriate.
HD11	Stored flammable liquids such as diesel would be protected either by double bunded tanks or stored in a bunded area with a capacity of 110% of the maximum stored volume.
HD12	Wash down of vehicles and equipment would take place in designated areas within construction compounds. Wash water would be prevented from passing untreated into watercourses.
HD13	Runoff across the site will be controlled through a variety of methods including header drains, buffer zones around watercourses, on-site ditches, silt traps and bunding. There will be no intentional discharge of site runoff to ditches, watercourses, drains or sewers without appropriate treatment and agreement from the appropriate authority (except in the case of an emergency).
HD14	An Emergency Action Plan would be developed for the construction phase which would outline procedures to be implemented in case of unplanned events, including but not limited to extreme weather events and pollution incidents.
HD15	The contractor(s) will subscribe to the Environment Agency's Floodline service, which provides advance warning of potential local flooding events, and subscribe to the Met Office's Weather Warnings email alerts system and any other relevant flood

Ref ID	Mitigation Measures
	warning information. The contractor(s) will implement a suitable flood risk action plan, which will include appropriate evacuation procedures should a flood occur or be forecast.
HD16	Active private water supplies and land drains would be identified with landowners through the landowner discussions. Appropriate measures would be considered during construction. In the event of a landowner or tenant reporting that installation activities have affected their private water supplies, an initial response would be provided. Where the installation works have affected a private water supply, an alternative water supply would be provided, as appropriate.
Geology and Hydrology	
GH01	Geo-environmental and geotechnical intrusive and non-intrusive ground investigation and assessment would be undertaken in accordance with current best practice including BS 5930 (Ref 4A.6), BS 10175 (Ref 4A.7) and Eurocode 7 (Ref 4A.8) which would inform, if required, a site remediation strategy, slope stability assessments, foundation design, and piling risk assessments where appropriate. This would be undertaken as part of the detailed pre-construction survey and design for implementation during construction.
GH02	Construction methods such as appropriate piling techniques (if required) to minimise the risk of mixing of aquifer bodies through the creation of new pathways would be utilised. Foundation Works Risk Assessments would be undertaken in accordance with the Environment Agency guidance Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination (Environment Agency, 2001 (Ref 4A.9)) to understand potential impacts on controlled waters (where it has not been possible to avoid through design). Where required, this would include suitable mitigation measures to minimise potential effects.
GH03	Use of appropriate occupational health and safety measures e.g., Personal Protective Equipment (PPE), and statutory health and safety compliance (e.g. compliance with the Confined Spaces Regulations, 1997 (Ref 4A.10) in relation to ground gas from working in confined spaces/trenches) to minimise the risks associated with anticipated/unexpected contamination. This would be based on risk assessment informed by site specific information.
GH04	Use and storage of chemicals would be undertaken in accordance with the Environment Agency and Government Pollution Prevention for business guidance.
GH05	The control of earthworks or materials movement (including any re-use of materials) under appropriate Environmental Permits, exemptions or CL:AIRE The Definition of Waste: The development industry Code of Practice (CL:AIRE, 2011 (Ref 4A.11)).

Ref ID	Mitigation Measures
GH06	Any temporary dewatering activities or abstraction from watercourses during construction would be undertaken in accordance with Environment Agency guidance, and if required, an Abstraction Licence and Environmental Permit (for the discharge) and would be limited to the depth and time required to facilitate construction activities.
GH07	Establishment of a protocol in the event of any unexpected contamination being discovered during the construction phase.
GH08	Consultation with local authority and coal authority prior to construction to ensure minimal mineral sterilisation.

Agriculture and Soils

AS01	An outline Soil Management Plan will also be developed to set out soil mitigation measures to protect soil resources and agricultural land during the stages of preconstruction, construction, post construction and operation.
AS02	<p>The outline Soil Management Plan will include but are not limited to:</p> <ul style="list-style-type: none"> • Preconstruction planning. • Preparation of a Soil Management Plan (this would cover peat soils if these are confirmed to be present through the surveys). <p>Site Preparation</p> <ul style="list-style-type: none"> • Vegetation clearance and removal of arisings. • Layout of construction accesses, haul routes, compounds, working areas and stockpile areas clearly marked on the ground. <p>Soil Stripping</p> <ul style="list-style-type: none"> • Soils to be stripped according to the thickness of soil horizons and soil types with minimum mixing. • Soils to be stripped in the driest conditions possible with works stopped where necessary during wet ground conditions. • Minimisation of dust and silt-laden runoff generation. <p>Soil Stockpiling</p> <ul style="list-style-type: none"> • Stockpiles to be located in appropriate locations to avoid increased flood risk, pollution of watercourses and topographic depressions. Best practice mitigation will be adopted to manage risk of cross-contamination of stockpiles. • Soils to be stockpiled in designated stockpile area according to temporary work design. • Topsoil and subsoil materials to be stockpiled separately and clearly identifiable. • Soils to be stockpiled in accordance with Soil Management Plan.

Ref ID	Mitigation Measures
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- Material movements and stockpile content to be recorded.

Soil Stockpile Maintenance

- Stockpiles to be seeded with low maintenance grass and clover mix to minimise risk of soil erosion and reduce the spread of weeds if stockpiled for over six months.
- Vegetation cover to be managed during the summer months to control the spread of weeds.

Soil Reinstatement

- On land to be returned to a landowner following temporary use during the construction phase soils will be reinstated to recreate soil profiles and land quality similar to that recorded pre-construction.
- On land for landscape planting or habitat creation, soil profiles to be created using available soil resources that support the required end use.
- Where soils have been handled when wet or have become wet during stockpiling, they will be reconditioned before reinstatement.
- Where practicable, all soils will be reused within the project. Where a surplus is generated as a result of permanent infrastructure this will be identified and reuse options developed (for example for landscape purposes, where the soil characteristics are appropriate, for areas of woodland planting).

Soil Aftercare

- Reinstated soils will be checked by suitably qualified personnel to ensure that soils are restored correctly, and any required remediation implemented. The roles and responsibilities of those responsible for confirming the effectiveness of reinstatement would be detailed within the Soil Management Plan.

Traffic and Transport

TT01	For traffic and transport, mitigation measures for the construction phase would be provided in the Outline CTMP which will include a Public Rights of Way Management Plan (PRoWMP) and a Construction Worker Traffic Plan (CWTP), submitted with the DCO application. The extent of specific mitigation measures and their effectiveness would be discussed in advance with relevant stakeholders. Such measures may include the use of haul roads from dedicated or existing easements, suitable highways signage, implementation of temporary traffic controls and restrictions, and a construction staff travel plan. Through the proposed mitigation measures, the Project would aim to minimise disruption to existing motorised and vulnerable road users, local residents, businesses and other users of the surrounding local road network.
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TT02	Crossing schedules will be developed for the overhead line and access works which set out crossing methodologies of all roads, railway lines, PRoWs and watercourse crossings.
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Ref ID	Mitigation Measures
Air Quality	
AQ01	Site management procedures would include the logging of air quality incidents/complaints.
AQ02	Monitoring activities would include site inspections, soiling checks, and checking compliance with the Dust Management Plan or equivalent.
AQ03	The site would be prepared and maintained where practicable to locate dust causing activities away from receptors, enclose specific operations with high potential for dust production, and cover stockpiles.
AQ04	Vehicle/machinery would be properly operated and supported by sustainable travel measures, such as complying with Non Road Mobile Machinery (NRMM) standards, no idling, using mains electricity where reasonably practicable, and developing a construction phase travel plan.
AQ05	Operations activities would employ dust suppression, use enclosed chutes, and reduce drop heights.
AQ06	Where any demolition activities are envisaged, controlling measures such as damp down, avoid explosive blasting, soft strip interiors before demolition would be specified.
AQ07	Earthworks measures would include revegetating promptly, using hessian mulches and covering with topsoil.
AQ08	Construction activities would avoid scabbling, keep aggregates damp where practicable, ensure fine powder materials are delivered enclosed and stored in silos, and ensure bags are sealed after use.
AQ09	Trackout measures would be implemented to include washing access and local roads, avoid dry sweeping of large areas, ensuring vehicle-borne materials are covered, and installing hard surface haul routes.
AQ10	Wheel washing would be provided at each main compound access point on to the highway. An adequate supply of water would be made available at these locations at all times. Road sweepers would be deployed on public roads where necessary to prevent excessive dust or mud deposits.
AQ11	Re-routing of construction vehicle traffic to avoid sensitive receptors should a significant air quality impact be predicted.
Noise and Vibration	
NV01	Any activity carried out or equipment located within a construction compound that may produce a noticeable noise would be located as far as practicable away from sensitive receptors.

Ref ID	Mitigation Measures
NV02	Contractors will be required to follow good construction practices (referred to as best practicable means (BPM)) as outlined in BS 5228-1 (Ref 4A.12) and BS 5228-2 (Ref 4A.13) to control noise and vibration respectively.
NV03	BPM measures would be identified within the outline CoCP (submitted with the DCO application) and may include housing continuous noisy plant in acoustic enclosures, siting semi-static equipment as far as reasonably practicable away from occupied buildings and fitting equipment with suitable enclosures or screening.
NV04	In certain instances where construction noise or vibration may cause a significant adverse effect at nearby NSR, applications for prior consent under Section 61 of the Control of Pollution Act 1974 (Ref 4A.14) may be submitted to the relevant local authority to ensure that BPM are applied to control noise and vibration. This would be considered within the mitigation outlined in the outline CoCP to support the DCO application.
Socio-economics, Recreation and Tourism	
SO01	Access to businesses, farm businesses, recreation and tourism assets would be maintained, where practicable, along their current alignments during construction.
SO02	Alternative access would be provided if access would be inhibited during construction.
SO03	PRoWs crossing the working areas would be managed in discussion with the relevant local authority PRoW officers. Disruption to access would be minimised where practicable during construction. Temporary diversions would be provided where possible, with clear signage to be provided at both ends to explain the diversion, duration of the diversion and a contact number for any concerns.
SO04	Provision of training to construction workers, particularly in relation to working hours and the management of emissions (e.g. dust, noise, vibration).
SO05	An outline Construction Traffic Management Plan (CTMP) would be prepared which would include commitments (where applicable) to reduce route impacts and journey mileage to, from and around the construction sites and manage access for neighbouring business and the wider community. An Outline CTMP will be submitted with the DCO application.
Climate Change Resilience	
CC01	The Contractor would consider all measures deemed necessary and appropriate to manage extreme and severe weather events. Measures will include, for example: A minimum cover training of personnel and prevention and monitoring arrangements to manage severe weather events.

Ref ID	Mitigation Measures
	<p>As appropriate, construction method statements should also consider severe weather events where risks have been identified.</p> <p>Health and safety plans to prevent worker exhaustion due to heat supportive measures for working in high temperatures might include the provision of sunblock, sun hats and lightweight clothing, refreshment breaks and cooled water supply.</p> <p>Temporary buildings designed with measures to cool summertime overheating.</p> <p>Safety measures to mitigate against issues caused by high winds such as increase dust or damage to structures/construction plant.</p>
CC02	<p>An early warning system for wildfire detection and evacuation procedures for construction workers should be implemented alongside fire safety measures such as clearance of vegetation around temporary structures (where appropriate), access to fire extinguishing equipment, and evacuation protocols developed.</p>
CC03	<p>The Contractor should use a short to medium range weather forecasting service from the Met Office, or other approved meteorological data and weather forecast provider, to inform short to medium term programme management, environmental control and impact mitigation measures e.g. health and safety plans to include supportive measures for working in extreme high or low temperatures. The contractor's Environmental Management System will consider all measures deemed necessary and appropriate to manage severe weather events and should as a minimum cover training of personnel and prevention and monitoring arrangements to manage severe weather events. As appropriate, construction method statements should also consider severe weather events where risks have been identified.</p>

4A.3 References

Ref 4A.1: Institute of Environmental Management and Assessment (2017). Delivering Proportionate EIA: A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice. Available at:

<https://www.iema.net/resources/reading-room/2017/07/18/delivering-proportionate-eia>

Ref 4A.2: British Standards Institution (2015). BS EN ISO 14001:2015 – TC. Environmental management systems. Requirements with guidance for use.

Ref 4A.3: Department of Energy Security & Net Zero (2024) Overarching National Policy Statement (NPS) for electricity networks infrastructure (EN-5).

<https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5>

Ref 4A.4: International Commission on Non-Ionizing Radiation Protection (ICNIRP) (1998). ICNIRP Guidelines – For limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHZ).

Ref 4A.5: Institution of Lighting Professionals (2023) Guidance Note GN08/23: Bats and Artificial Lighting At Night. Available at Guidance Note GN08/23: Bats and Artificial Lighting At Night.

Ref 4A.6: British Standards Institution (2020). BS5930:2015+A1:2020, Code of practice for ground investigations.

Ref 4A.7: British Standards Institution (2017). BS 10175:2011+A2;2017, Investigation of potentially contaminated sites – code of practice.

Ref 4A.8: British Standards Institution (2004). BS EN 1997-1:2004+A1:2013 (Eurocode 7). Geotechnical Design – General Rules.

Ref 4A.9: Environment Agency (2001). Piling in layered ground: risks to groundwater and archaeology. Guidance on pollution prevention.

Ref 4A.10: HMSO (1997). Confined Spaces Regulations 1997. Available at Confined Spaces Regulations 1977 (legislation.gov.uk).

Ref 4A.11: Contaminated Land: Applications in Real Environments (CL:AIRE) (2011). Definition of Waste Development Industry Code of Practice.

Ref 4A.12: British Standards Institution (2014). BS 5228-1:2009 (+A1:2014): Code of practice for noise and vibration control on construction and open sites. Noise. London: British Standards Institution.

Ref 4A.13: British Standards Institution (2014). BS 5228-2:2009 (+A1:2014): Code of practice for noise and vibration control on construction and open sites. Vibration. London: British Standards Institution.

Ref 4A.14: HMSO (1974). Control of Pollution 1974. Available at Control of Pollution Act 1974 (legislation.gov.uk).

Appendix 7A: Arboricultural Strategy

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7A.1 Arboricultural Strategy

7A.1.1 Introduction

- 7A.1.1.1 This document has been prepared to set out the scope and methodology for the proposed approach to the arboricultural assessment on the Chesterfield to Willington National Grid Connection (hereafter referred to as the 'Project') Development Consent Order (DCO) application. The outcomes of the arboricultural assessment would be reported within an Arboricultural Impact Assessment (AIA) prepared in support of the Ecology and Biodiversity assessment within the Environmental Statement (ES).
- 7A.1.1.2 Paragraph 5.11.27 of the Overarching National Policy Statement for Energy (NPS EN-1) (Ref 7A.1) states that "*Existing trees and woodlands should be retained wherever possible*".
- 7A.1.1.3 It further states that "The applicant should assess the impacts on, and loss of, all trees and woodlands within the project boundary and develop mitigation measures to minimise adverse impacts and any risk of net deforestation as a result of the scheme. Mitigation may include, but is not limited to, the use of buffers to enhance resilience, improvements to connectivity, and improved woodland management. Where woodland loss is unavoidable, compensation schemes will be required, and the long-term management and maintenance of newly planted trees should be secured".
- 7A.1.1.4 The methodology has been proposed to remain appropriate and proportionate the scale and stage of the Project and is intended to satisfy the requirements of the 'mitigation hierarchy' with regards to impacts on arboricultural features.
- 7A.1.1.5 The arboricultural assessment will seek to ensure that the Project adheres to the following principles over the course of its design, construction and implementation:
- Where reasonably practical avoid impacts to ancient woodland, ancient and veteran trees.
 - Where reasonably practical avoid impacts to notable trees.
 - Where practicable minimise the number of trees identified to be removed.
 - Seek to limit the impacts on retained trees through suitable avoidance/mitigation.

7A.1.2 Study Area

- 7A.1.2.1 The arboricultural assessment will identify impacts of trees potentially subject to significant arboricultural impacts as a result of the Project.
- 7A.1.2.2 The study area for the arboricultural assessment will include the Order Limits and a minimum 15 m buffer extending up to a 30 m buffer where appropriate (for example if veteran trees are present in the vicinity). This is considered appropriate as it would incorporate all foreseeable above and below ground arboricultural constraints including Root Protection Areas (RPAs) and tree canopy extents.

7A.1.3 Desk Study

7A.1.3.1 An initial arboricultural desk study will be undertaken of the study area to review and analyse publicly accessible online datasets to provide an overview of the planning and development constraints relating to arboricultural features across the study area. The desk study will draw upon the following information sources:

- Aerial imagery.
- LIDAR datasets.
- Woodland Trust open-source data.
- Natural England open-source datasets.
- Local and national planning data.

7A.1.3.2 The results of the desk study will be used to provide early constraints mapping to inform the developing design including the proposed routing/siting ahead of the arboricultural field surveys.

7A.1.3.3 The desk study would identify information relating to the following constraints:

- Tree Preservation Orders.
- Conservation areas.
- Ancient woodland.
- Native woodland.
- Orchards.
- Ancient and veteran trees.

7A.1.4 Field Survey

7A.1.4.1 The arboricultural field surveys will comprise a walkover survey of the study area to identify and assess the value of trees and principal arboricultural features that are within influencing distance of the Project.

7A.1.4.2 The following principal features will be captured during the arboricultural field surveys:

- BS: 5837:2012 Category A and B trees and tree groups.
- Ancient Trees.
- Veteran Trees.
- Ancient woodland (all categories).
- Woodland.

7A.1.4.3 Field surveys will be carried out from ground level only, no aerial or subterranean surveys are considered necessary. The walkover survey would focus on high and moderate quality arboricultural features (A and B grade as per BS: 5837:2012 (Ref 7A.2)). This is considered proportionate due to the scale and nature of the development and due to the fact that Cat A and B are likely to be key constraints and the features with the potential to impact the design. Spatial positioning for remaining trees would be provided using readily available LiDAR data.

7A.1.4.4 The tree surveys will be undertaken with reference to BS 5837:2012 and will assess the principal arboricultural features as defined above in accordance with the following criteria:

- Tree species will be recorded for all surveyed features.
- Tree heights will be confirmed in the field to the nearest 1 m.
- Stem diameters will be measured in accordance with Annex C of BS: 5837:2012. The diameters of single stem trees on level ground will be measured at 1.5m above ground level. The combined stem diameters for multi-stemmed trees will be calculated in accordance with BS 5837 paragraph 4.6.1 Only trees of stem diameter of 75 mm or greater will be recorded.
- RPAs will be calculated in accordance with Section 4.6.1 in BS: 5837:2012 using the measured stem diameters. The shape and size of an RPA can be amended in accordance with Section 4.6.3 of BS: 5837:2012.
- The maximum crown spread of each tree will be measured from the centre of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a ground tape where safe and practical to do so.
- Notes will be recorded relating to the quality of the arboricultural feature surveyed including relevant observations and features with regards to the identification of Ancient and Veteran trees.
- Arboricultural features surveyed will be categorised according to their quality and value in accordance with Table 1: Cascade chart for tree quality assessment of BS 5837:2012.
- When arboricultural features are identified as tree groups or wooded areas, tree groups will be recorded on the basis they form distinct arboricultural features either aerodynamically, visually or because they contain trees of similar cultural and biodiversity value. Wooded areas will be recorded where larger expanses of trees exist and include features which may otherwise be referred to as copses, spinneys or shelterbelts.

7A.1.4.5 Following the arboricultural field surveys the arboricultural features will be mapped as constraints to inform the developing design and ground truth the results of the desk study. The arboricultural constraints recorded within the study area would be reported within the AIA report and will provide the following details:

- Summary of the arboricultural features in the study area including details of all identified ancient, veteran and notable trees identified.
- A schedule of trees detailing the condition and quality of the trees.
- Tree Constraints Plan with associated RPAs.

7A.1.5 Arboricultural Impact Assessment

7A.1.5.1 As part of the iterative design process, the AIA will seek to ensure that the Project adheres to the following mitigation principles to minimise adverse effects on arboricultural features:

- Where reasonably practical avoid impacts to ancient woodland, ancient and veteran trees.
- Where reasonably practical avoid impacts to notable trees.
- Where practicable minimise the number of trees identified to be removed.
- Seek to limit the impacts on retained trees through suitable avoidance/mitigation.

7A.1.5.2 Where impacts arise between proposals and existing arboricultural features, appropriate mitigation measures (particularly where this can also contribute to

ecological or landscape goals) and compensation measures (to maximise biodiversity net gain potential) will be developed to support the Project design.

- 7A.1.5.3 The impact on trees will be recorded within the AIA Report, which will form an appendix to the Ecology and Biodiversity chapter of the Environmental Statement. The AIA report will consider the direct impact of the Project and the impact of access for construction on arboricultural features.
- 7A.1.5.4 The AIA Report, to be submitted as part of the DCO application, will be supported by Tree Removal and Protection Plan. The report and associated drawings will assess the impacts of required tree removal, as well as any construction impacts on trees to be retained.
- 7A.1.5.5 Ancient and veteran trees, and ancient woodlands are regarded as irreplaceable habitat in paragraph 5.4.14 of NPS EN-1. Category A and B trees would be regarded as high and moderate features.
- 7A.1.5.6 The AIA will set out good practice and additional mitigation measures to reduce the impact on retained arboricultural features. The mitigation measures identified through the AIA will feed into the Code of Construction Practice, submitted in support of the DCO application.

7A.2 References

Ref 7A.1: Department for Energy Security and Net Zero (2024). EN-1 Overarching National Policy Statement for Energy. Available at: [EN-1 Overarching National Policy Statement for Energy \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/123456/EN-1_Overarching_National_Policy_Statement_for_Energy.pdf)

Ref 7A.2: British Standard (BS) 5287:2012. Trees in relation to design, demolition and construction. Recommendations.

Appendix 7B. Non-Statutory Designated Sites within the Scoping Boundary

Contents

Appendix 7B Non-statutory designated sites within the Scoping Boundary

Table 7B1.1 – Non-Statutory Designated Sites within the Scoping Boundary

7B-1

7B1.1 – Non-Statutory Designated Sites within the Scoping Boundary

Site	Designation	Description
A615 Road Verges - Wessington	LWS (Local Wildlife Site)	Unimproved neutral grassland
All Saints Churchyard, South Wingfield	LWS	Unimproved neutral grassland
Arleston Canal and Pond	LWS	Habitat mosaic
Astwith Dumbles	LWS	Ancient woodland - plantation broad-leaved
Barrow on Trent Complex	LWS	Habitat mosaic
Bellington Wood	LWS	Secondary broad-leaved woodland
Boar Farm Meadows	LWS	Unimproved neutral grassland
Booth's Wood and Brook	LWS	Ancient semi-natural woodland - mixed deciduous
Bottom Dumbles	LWS	Secondary broad-leaved woodland
Brickyard Plantation and Claypit	LWS	Secondary broad-leaved wet woodland
Broadoak Plantation	LWS	Ancient woodland - plantation broad-leaved
Broomriding Wood	LWS	Ancient semi-natural oak/birch woodland
Brown's Lane Meadows	LWS	Unimproved neutral grassland - pasture
Buckland Hollow Disused Railway	LWS	Secondary broad-leaved woodland
Buckland Hollow Ponds	LWS	Standing open water
Cavell Drive Meadow	LWS	Unimproved neutral grassland
Chellaston East Junction	LWS	Habitat mosaic
Church Lane, Morley	LWS	Hedgerow
Cinderhill Tar Pits and Morrells Brook	LWS	Habitat mosaic
Cromford Canal, Lower Hartsay	LWS	Water Vole population
Derby Canal	LWS	Habitat mosaic
Dunshill Quarry	LWS	Secondary broad-leaved woodland

Site	Designation	Description
Dunshill Shelterbelt	LWS	Secondary broad-leaved plantation
Dunshill Verge	LWS	Unimproved neutral grassland
Findern Meadows	LWS	Semi-improved neutral grassland
Flamstead Lane Meadows	LWS	Unimproved neutral grassland
Green Lane and Meadow	LWS	Hedgerow
Hayeswood Farm Grassland	LWS	Unimproved neutral grassland
Heage Road Pond.	LWS	Standing open water
Heath Hedges	LWS	Hedgerow
Holbrook Disused Sewage Works	LWS	Habitat mosaic
Home Farm Pond #2	LWS	Standing open water
Junction 29 Meadow	LWS	Unimproved neutral grassland
Kirby's Triangle	LWS	Lowland swamp
Little Wood	LWS	Ancient semi-natural oak woodland
Lower Hartshay Wetland	LWS	Bird assemblage - wetland
Millstone Lane Road Verge	LWS	Hedgerow
Morleyhayes Wood	LWS	Ancient semi-natural oak woodland
Morrell's Wood	LWS	Ancient semi-natural woodland - mixed deciduous
North Wingfield Nature Reserve	LWS	Water vole population
Oakerthorpe Local Nature Reserve	LWS	Secondary broad-leaved wet woodland
Owlcotes Wood	LWS	Ancient woodland - plantation broad-leaved
Shaw Wood	LWS	Ancient semi-natural woodland - mixed deciduous
Smalley Green Meadow	LWS	Unimproved neutral grassland
Sports Ground Marsh	LWS	Secondary broad-leaved wet woodland
Stanley Common Meadow	LWS	Unimproved neutral grassland
Stanley-Morley Disused Railway	LWS	Secondary broad-leaved woodland
Sutton Springs Wood	LWS	Ancient semi-natural oak woodland

Site	Designation	Description
Swarkestone Marsh	LWS	Secondary broad-leaved wet woodland
The Spots Plantation	LWS	Secondary broad-leaved woodland
The Warren, Coxbench	LWS	Unimproved acid grassland
Twyford Oxbow #1	LWS	Lowland swamp
Twyfords Green Complex	LWS	Wet grassland
Waterloo Plantation, Hopewell	LWS	Secondary broad-leaved woodland
Whittaker Lane Woodland	LWS	Secondary broad-leaved woodland
Willington Grassland	LWS	Wet grassland
Willington Railway Pond #1	LWS	Standing open water
Willington Railway Pond No.2	LWS	Standing open water
Wrang Plantation	LWS	Secondary broad-leaved woodland
Yew Tree Meadows	LWS	Unimproved neutral grassland
Calow Green Railway	pLWS (Proposed LWS)	N/A
Castle Quarry	pLWS	N/A
Congleton House Scrub	pLWS	N/A
Deer Shed Pond	pLWS	N/A
Derby Road Scrub	pLWS	N/A
Furnace Hillock	pLWS	N/A
Golden Valley Wood	pLWS	N/A
Green Lane Mine (Locko Plantation)	pLWS	N/A
Hartshay Brook	pLWS	N/A
Horsecarr Brook & Footpath	pLWS	N/A
Linkwood Farm Wood	pLWS	N/A
Locko Brook Site	pLWS	N/A
Long Plantation	pLWS	N/A
Park Farm Pond	pLWS	N/A
Pingle Cottage Pond	pLWS	N/A
Smalley Hall Wood	pLWS	N/A

Site	Designation	Description
Smalley Waste Ground	pLWS	N/A
Smithy Moor Railway	pLWS	N/A
Tavern Plantation	pLWS	N/A
Wishing Stone Way Wood	pLWS	N/A
Wood Lane Shelter Belt	pLWS	N/A
Morley Brickyards SSSI	DWT (Derbyshire Wildlife Trust) Reserve	Wetland, woodland, amphibians, rare flora
North Wingfield	DWT Reserve	Grassland, wetland, water vole, harvest mice
Oakerthorpe	DWT Reserve	Wet woodland supporting amphibians and reptiles, woodland plants

Appendix 8A. Designated Heritage Assets

Contents

Appendix 8A Designated Heritage Asset Gazetteer

Table 8A 1.1 – Designated Heritage Asset Gazetteer

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Table 8A 1.1 – Designated Heritage Asset Gazetteer

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
World Heritage Sites				
1000100	Derwent Valley Mills	N/A	432683	348422
Scheduled Monuments				
1003279	Iron Age settlement and cursus, with other air photographic marks, SE of Aston-on-Trent	N/A	442038	329071
1007024	Settlement site	N/A	438840	329618
1007028	Settlement site and enclosures	N/A	431988	329045
1007034	Henge complex NW of Hickens Bridge	N/A	442816	329942
1007035	Sutton Scarsdale Hall	N/A	444229	368940
1007036	Rykneld Street section of Roman road S of Ticknall Hill	N/A	438723	346272
1007039	Morley Park Works	N/A	438002	349189
1007046	Castle Hill camp	N/A	438579	354129
1007061	Dale Abbey	N/A	443735	338735
1007063	Duffield Bridge	N/A	435034	342965
1007076	Swarkestone Bridge	N/A	437029	327811
1009293	Horsley Castle tower keep castle	N/A	437580	343204
1011436	Twyford henge and Round Hill bowl barrow	N/A	433335	328341
1011439	Moated site and two fishponds at Moat Wood	N/A	443868	340518
1011447	Motte south-west of Morley House Farm	N/A	439186	340998
1011618	Park Hall moated site, well and enclosure	N/A	442460	343013
1014829	Wingfield Manor: a medieval great house	N/A	437424	354736
1015889	Hardwick Old Hall: an Elizabethan great house	N/A	446173	363660
1015890	Stainsby defended manorial complex including site of chapel	N/A	444909	365638
1017561	Viking barrow cemetery in Heath Wood	N/A	434191	325866

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1019060	Swarkestone Lows round barrow cemetery and part of an aggregate field system 300m north west of The Lowes Farm	N/A	436710	329503
1019632	Hermitage 170m south east of All Saints Church	N/A	443884	338490
1019633	Medieval iron working remains at Stanley monastic grange	N/A	442572	340654
1019871	Heavy Anti-aircraft gunsite 340m south east of Gardens Farm	N/A	441425	332577
1021444	Section of Rykniel Street Roman road 220m north east of Pear Tree Farm	N/A	439095	365207
1404832	Butterley Works blast furnaces, canal tunnel and underground wharf	N/A	440162	351595
1422984	Butterley Gangroad and Fritchley Tunnel	N/A	435625	353809
Conservation Areas				
N/A	Spondon	N/A	439853	336049
N/A	Palterton	N/A	447465	368381
N/A	Hardwick and Rowthorne	N/A	446420	364590
N/A	Stainsby	N/A	445010	365532
N/A	Trent and Mersey Canal	N/A	432208	330016
N/A	Swarkestone	N/A	437203	328611
N/A	Twyford	N/A	432704	328645
N/A	Milton	N/A	432023	326557
N/A	Barrow on Trent	N/A	435432	328331
N/A	Repton	N/A	430427	326812
N/A	Stanton by Bridge	N/A	437062	327216
N/A	Aston on Trent	N/A	441487	329365
N/A	Shardlow Wharf	N/A	444021	330462
N/A	King's Newton	N/A	438796	326308
N/A	Higham Old Village	N/A	439027	359075
N/A	Amber Mill and Toad Hole	N/A	438756	356902

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
N/A	Heath Village	N/A	444623	366910
N/A	Morton	N/A	440748	360063
N/A	Hallfield Gate	N/A	439315	358228
N/A	Sutton Scarsdale	N/A	444293	369237
N/A	North Wingfield	N/A	440907	365005
N/A	Clay Cross	N/A	439477	363444
N/A	Cavendish Bridge	N/A	444713	329861
N/A	South Wingfield	N/A	437737	355159
N/A	Alfreton	N/A	440803	355828
N/A	Waingroves Hall	N/A	441182	348600
N/A	Belper and Milford	N/A	434651	346485
N/A	Duffield	N/A	434731	342836
N/A	Holbrook Moor	N/A	436340	345407
N/A	Holbrook	N/A	436340	344523
N/A	Kilburn	N/A	437687	345776
N/A	Horsley	N/A	437742	344342
N/A	Coxbench	N/A	437350	343440
N/A	Ockbrook Moravian Settlement	N/A	442011	336153
N/A	Morley	N/A	439570	340893
N/A	Risley	N/A	445965	335616
N/A	Stanley	N/A	441788	340406
N/A	West Hallam	N/A	443230	341221
N/A	Hardstoft	N/A	443900	363066
N/A	Astwith	N/A	443877	364169
N/A	Bolsover	N/A	446868	370529
N/A	Melbourne	N/A	438840	325274
N/A	Breaston	N/A	445986	333615
N/A	Dale Abbey	N/A	443939	338685
N/A	Draycott	N/A	444355	333101

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
N/A	Eaton Bank	N/A	435386	342574
N/A	Little Eaton	N/A	436182	341416
N/A	Ockbrook Village	N/A	442250	335778
Registered Parks and Gardens				
1000404	Elvaston Castle	II*	441482	332897
1000450	Hardwick Hall	I	446496	364073
1000681	Locko Park	II	440902	338562
1000685	Swarkestone Old Hall	II*	437360	328481
Listed Buildings				
1038291	Willington Bridge (Extends Into Parish Of Repton)	II	429636	327917
1038328	Willington Hill Farmhouse	II	429418	329389
1038540	Trentside Cottage	II	429612	328131
1038935	Old Hall Farmhouse	II	432932	328918
1039096	Twyford Hall	II	432760	328374
1039117	Church Of St Andrew	I	432741	328552
1040005	Number 19 And Attached Outbuilding	II	430752	330381
1040011	Church Of All Saints	II*	438326	355779
1040028	Church Of All Saints	II	430886	330459
1045796	31 Burton Road	II	430237	326819
1045802	Railway Bridge To The South East Of Dale Bridge	II	438669	356368
1045809	Pear Tree Cottage	II	439013	354869
1045822	Zion Cottage	II	437575	355406
1045825	Brook Lynn	II	430580	327117
1045828	Boundary Wall And Two Pairs Of Gate Piers At Wingfield House	II	437592	355459
1045835	Ingleby Cottage	II	435009	326934
1045861	Church Of St Saviour	I	432975	326472
1045869	Garden Temple At Foremark Hall	II	433578	326382

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1045874	Shaw Wood Farmhouse	II	438373	354684
1045885	Spring Head At Os 330262	II	433076	326294
1045889	Wall And Balustrade At South End Of Lake At Foremarke Hall	II	433260	326637
1045903	Wall Between Wingfield Station From End Of The Front Boundary To The Stationmaster's House	II	438496	355724
1045917	Wingfield Station	II*	438510	355747
1049127	Park Head Farmhouse	II	436104	354592
1051617	Hardwick Hall	I	446305	363733
1051625	Group Of Six Statues In The Gardens Of Hardwick Hall	II	446292	363634
1051666	Hasland Hall School	II	439719	369149
1052255	Dryhurst	II	440233	371048
1052258	The Grange	II	446124	364568
1052260	Cemetery Church And Chapel At Spital Cemetery	II	439067	370729
1052315	The Hardwick Inn	II	445909	363312
1052316	Stainsby Mill	II	445562	365319
1052326	Yew Tree Farmhouse	II	444016	363225
1052337	Hardwick Old Hall	I	446148	363697
1052355	Engineers Offices At Goods Yard, British Rail Station	II	438732	371362
1054794	No 22 Kirby Holt And Attached Walls, Gate Piers And Railings	II	432039	326506
1054795	Ridgeway Farmhouse	II	431294	326132
1054796	Engine House At Easton House	II	430326	326587
1054812	Dovecote At Brook Farm	II	432063	326518
1054883	100-106, High Street	II	430657	326549
1054889	Tudor Lodge And Attached Garden Wall	II	430502	326836
1054902	Lilac Farmhouse	II	447437	368347

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1054906	46, High Street	II	430532	326707
1055755	The Old Priory, Attached Walls And Gate Piers, Repton School	I	430340	327184
1055800	Priory Gateway, Precinct Walls, The Tithe Barn And The Lodge, Repton School	I	430348	327110
1057648	Canal Bridge At Os 321300	II	432108	330059
1057669	Repton Hall With Prior Overtons Tower, Repton School	I	430332	327257
1057673	The Chapel, Repton School	II	430186	327059
1057696	War Memorial At Repton School	II	430359	327186
1068875	Tapton Grove	II*	440136	372436
1074139	Three Cranes	II	444466	329869
1074159	Remains Of Gypsum Kiln At King's Mills, Adjacent To South West End Of The Cottages	II	441759	327424
1074160	Cavendish Cottages	II	444572	329828
1081498	Cloister	II	434982	345158
1081506	Milford View	II	434964	345249
1087343	The King William	II	435141	345110
1087344	Southern Premises Of Bill Lomas (Motor Cycles) Limited	II	435147	345126
1087345	Milford Post Office	II	435156	345165
1087346	Church Of The Holy Trinity	II	435111	345370
1087347	Railed Street Boundary Wall, North-West End Pier And South-West Gate And Gate Piers To Holy Trinity Churchyard	II	435100	345361
1087348	Building 51 Milford Dyehouse	II	435056	345146
1087349	Canteen At Milford Dyehouse	II	435009	345145
1087350	Milford House Cottages	II	434941	345055
1087352	Ranges To North, East And West Of Foldyard At Moscow Farm	II*	434654	344465

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1087353	Poultry Houses	II	434712	344503
1087361	Retaining Walls To Weir Adjacent To Glow Worm Foundry	II	434884	345394
1087367	Laund Farmhouse	II	436229	348951
1087369	1-5, Chevin Alley	II	434991	345148
1087371	13, 15 And 17, Chevin Road	II	434962	345200
1087372	Premises Of Appor Limited	II	434955	345230
1087374	Milford County Junior Mixed And Infants School	II	434994	345186
1087383	Bridge House	II	435137	345177
1087386	21, 22 And 23 Derby Road	II	434856	345576
1087387	Milford Ebenezer Methodist Church	II	435138	345096
1087783	Outbuilding To North Of Amber House	II	438865	356947
1087784	Former Friends Meeting House And School, Toadhole Furnace	II	438919	356947
1087785	Shirland House And Attached Stableblock	II	439837	358821
1087786	Toll Bar Cottage	II	436628	361550
1087787	Three Bridges At Smithymoor Nr Stretton Station	II	438719	361419
1087788	Pigeoncote 3 Miles Southwest Of Old Forge Cottage	II	438116	360037
1087789	Handley House And Attached Garden Wall And Gate	II	437609	361864
1087790	Ankerbold	II	439906	365674
1087791	Barn And Attached Outbuildings At Egstow Hall	II	439075	364979
1087792	Outbuilding Called 'The Chapel' At Roadnook Farm	II	437053	358107
1087793	Outbuilding To North Of Amber Farmhouse	II	438620	356981
1087805	Ogston Hall And Attached Stable Block	II*	437802	359732

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1087806	Conservatory To South West Of Ogston Hall	II	437781	359698
1087807	Sawmill To West Of Ogston	II	437761	359712
1087808	Kitchen Garden Walls To South West Of Ogston Hall, And Doorway	II	437738	359676
1087809	Mather's Grave, Guidepost And Wall	II	435960	358978
1087810	North Portal To Clay Cross Railway Tunnel	II	439714	364233
1087811	Monument To South Of Cemetery Chapels	II	439734	362863
1087812	Church Of St Bartholomew	II	439136	363299
1087813	Holmgate House	II	437463	363695
1087814	Mile Post 10 Metres South East Of Carr Hill Farmhouse	II	439231	357921
1087915	Risley Hall And Attached Garden Wall	II	446015	335578
1087939	The Orchard	II	442173	335892
1087940	Rock House	II	441997	334244
1087941	Church Of All Saints	II*	442370	335702
1087942	Boundary Post West Of Borrowash House	II	441135	334790
1087943	Ockbrook House And Attached Outbuilding	II	442349	335881
1087944	38, The Ridings	II	442548	335949
1087945	5 And 7, The Settlement	II	442094	336052
1087946	Sundial To South Of Ockbrook School	II	442117	336127
1087947	8, The Settlement	II	442114	336168
1087948	Sundial And Railings To South Of Moravian Church	II	442151	336165
1087949	Railings To South Of The Moravian Church	II	442164	336152
1087950	16 And 18, The Settlement	II	442153	336199
1087951	26, The Settlement	II	442187	336194

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1087952	33, The Settlement	II	442218	336137
1087953	Outbuilding To West Of Riverside House	II	441406	334175
1087960	Church Of St Michael	I	446007	333506
1087963	Railway Bridge To South West Of Cemetery Chapel	II	444272	333530
1087964	Cedars Farmhouse	II	444286	332998
1087965	Bobbin Milepost South Of The Cottage	II	443570	334886
1087966	Railway Bridge At Sk 446 334	II	444605	333451
1087967	Farmbuilding At Manor Farm	II	443519	335277
1088273	Penmore House	II	439211	369828
1088274	Bank Close (T I Guest House Sports And Social Club)	II*	438802	370207
1088275	Gatepiers At Entrance To Bank Close Drive	II	438871	370326
1088276	Former Coach House And Stables At Rear Of Bank Close (Including Connecting Walls And Gatepiers)	II	438811	370188
1088286	Riverside House	II	438829	370914
1088307	Dobbin Clough Farmhouse And Attached Barn To South Of House	II	439730	371425
1088308	Tapton Manor	II	440172	372234
1088314	Lodge To Spital Cemetery	II	438968	370851
1088315	Entrance Walls With Stone Arch And Gate Piers At Spital Cemetery	II	438959	370858
1088330	Stables At Tapton Grove (To East Of House)	II	440201	372413
1088337	Swarkestone Bridge And Causeway	I	437027	327808
1088338	High Standing	II	437323	327213
1088339	Church Of St Michael	I	436735	327150
1088340	Rectory House	II	436742	327117
1088341	Poplars Farmhouse	II	436938	327278
1088342	The Hollyhocks	II	437253	327254

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1088343	Ivy Farm Cottage	II	437197	327243
1088344	Church Of St James	II*	437196	328595
1088345	The Grandstand, Cuttle And Gate 200 Metres North Of Swarkestone Hall	I	437463	328648
1088346	Swarkestone Hall Farmhouse	II*	437455	328406
1088347	Stable Block To North Of Crewe And Harpur Arms	II	436859	328623
1088348	Trent And Mersey Canal Swarkestone Lock And Bridge	II	437156	329167
1088349	Lowes Farmhouse And Attached Farm Buildings	II	436433	329354
1088350	Trent And Mersey Canal, Canal Milepost To South Of Massey's Bridge At Sk 381 284	II	438122	328462
1088351	Trent And Mersey Canal, Canal Milepost Near Weston Lock At Sk 407 277	II	440727	327735
1088352	Weston Hall	II*	440326	328350
1088353	The White House	II	440286	327846
1088357	Trent And Mersey Canal, Canal Milepost To West Of Hickens Bridge At Sk 429 298	II	443181	329959
1088358	5 And 7, Canal Bank	II	444233	330257
1088359	2 And 4, Canal Bank	II	444222	330269
1088360	Milepost At Sk 427 306	II	442768	330615
1088361	Shardlow House	II	443485	330378
1088362	Church Of St James	II	443792	330325
1088363	Gate Piers And Railing To South Of St James Church	II	443804	330348
1088364	Old Salt Warehouse To North East Of The Clock Warehouse	II	444171	330283
1088365	Toll Sign At Sk 445 300	II	444514	330047
1088367	Barn And Cowshed To West Of 83 London Road	II	443466	330451

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1088368	Shardlow Hall With Attached Garden Seat To North-East Corner, Steps C.14m From North-West Front And Steps C.7m West Of South-West Corner	II*	443853	330472
1088369	Number 1 Store Attached To West Side Of Number 139 London Road	II	444308	330315
1088370	The Navigation Inn	II	444354	330264
1088371	Trent Corn Mill Number 1	II	444261	330372
1088372	Ivy House	II	444388	330447
1088373	47, The Wharf	II	444454	330540
1088375	Barn To South Of Wilne Farmhouse	II	444880	330921
1088376	Gates And Attached Walls To Kings Newton Hall	II	438804	326187
1088377	Kings Newton Hall	II	438810	326208
1088378	Stable Block To East Of Kings Newton Hall	II	438847	326213
1088379	Chantry House	II	438873	326206
1088380	Chantry Barn And Chantry Stables	II	438897	326229
1088381	Village Cross	II	439067	326224
1096361	Ye Olde Packhorse Inn	II	438572	326159
1096370	Cross House	II	439080	326233
1096371	4 Aston Lane	II	443412	330405
1096391	Hardinge Arms	II	438763	326171
1096392	Church House	II	439022	326203
1096393	Gate Piers And Attached Walls To West Of Service Court At Elvaston Castle	II	440612	333035
1096394	Stable Block To East Of The Kennels At Elvaston Castle	II	440589	332993
1096395	Church Of St Bartholomew	I	440704	332975
1096396	Moorish Temple And Attached Terrace In Elvaston Castle Gardens	II	440707	332803
1096397	Golden Gates And Attached Walls At Elvaston Castle	II	440711	332580

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1096398	Grotto On North Side Of The Lake At Elvaston Castle	II	440902	333141
1096399	Pump House	II	441015	333003
1096400	Nursery Garden Walls And Attached Outbuildings At Elvaston Castle	II	441145	332791
1096401	London Road Lodge Entrance Gates	II	440577	331794
1096402	Village Hall And Attached House	II	440938	332597
1096403	Kiosk Cottage	II	440942	331917
1096428	Bus Shelter	II	441506	329505
1096429	16, The Green	II	441561	329527
1096430	Aston Hall	II*	441498	329170
1096431	2 And 4, Weston Road	II	441485	329491
1096432	Ledmore	II	441407	329468
1096433	Coach House And Attached Buildings At Elvaston Castle	II	440718	333016
1096434	Springthorpe Cottage At Stableyard Entrance To Elvaston Castle	II	440620	333045
1096436	Knowlehill, House, Tea Room And Other Buildings, Including Underground Caves	II	435169	325669
1096477	Pilsbury House	II	429526	328174
1096478	"Hall Cottages And The Hall		429897	328279
1096498	Stone House	II	430493	326845
1096499	Post Office	II	430403	326999
1096500	1, High Street	II	430393	327017
1096501	The Grange	II	430698	326444
1096502	Mill Farmhouse	II*	432239	326455
1096503	Brook Farmhouse	II	432065	326503
1096504	The Farmhouse And Attached Walls And Railings	II	432038	326533
1096505	Common Farmhouse	II	432053	326455
1096506	Brook End House	II	430597	327140

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1096507	Easton House	II	430336	326531
1096508	United Reformed Church	II	430739	326561
1096510	Danesgate	II	430543	326501
1096511	Pears School, Repton School	II	430369	327159
1096512	Remains Of Priory Church And The Chapter Block, Repton School	II	430378	327186
1096513	No 1 Willington Road	I	430298	327088
1096514	Gymnasium And Attached Gates, Repton School	II	430135	327154
1096515	Grange Farmhouse	II	432694	328510
1096516	Range Of Outbuildings To North Of Twyford Hall	II	432758	328405
1096517	Old Hall Cottage	II	432911	328928
1096518	The Old School House	II*	432645	328818
1096519	The Green Man	II	429387	328551
1096520	The Grange	II	434900	328626
1096528	Willow Farmhouse And Attached Outbuildings	II	430804	330647
1096529	Walls And Gateway To All Saints Churchyard	II	430898	330422
1096530	Somerville House And Attached Outbuilding	II	430768	330385
1096531	Foremark Hall	II	433251	326515
1096532	Gate, Attached Steps, Walls And Railings To South East Of Foremark Hall	I	433308	326461
1096533	Home Farmhouse	II	433039	326383
1096534	Anchor Church	II	433900	327224
1096535	Ash Farmhouse	II	435185	326888
1096536	Range Of Outbuildings To West Of Ingleby Toft	II	435453	326484
1096537	Market Cross	II	430373	327015

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1096538	St Wystans	I	430484	326826
1096539	The Highways	II	430498	326798
1096540	Hazeldine	II	430560	326732
1096557	Arleston House Farmhouse	II	433697	329640
1096558	Methodist Church	II	435436	328514
1096559	Church Of St Wilfrid	II	435293	328385
1096560	The Walnuts	I	435426	328321
1096561	Village School	II	435211	328557
1096882	Trent And Mersey Canal Deep Dale Bridge Number 17 At Sk 3485 2923	II	434893	329248
1097011	Spital Barn	II	439120	370418
1099150	Numbers 2-8 Duke's Buildings	II	435004	345446
1099189	Milford Bridge	II	435104	345121
1099936	Ranges To East Of House At Moscow Farm	II	434678	344468
1099941	Hay Barn At Moscow Farm	II*	434702	344444
1099944	Eastern Gate Piers At Field Entrance Boundary Wall (And Coal Shute) Beside Drive	II	434725	344481
1100297	2 And 3, Foundry Lane, Milford	II	434854	345542
1100630	Stone Walls, Steps And Iron Posts To Footpath Between South End Of Hopping Hill And Hopping Hill Terrace, Shaw Lane	II	435113	345406
1101462	Range Of Farm Buildings To East Of Redhill Farmhouse	II	435299	344311
1101563	20, Kilbourne Road	II	436078	347895
1101747	Turn Pike Cottage	II	435872	344623
1101748	Chain Bridge	II	441979	327335
1108886	Mill At Higham Dairy Farm	II	438703	358395
1108887	Shirland Lodge Farmhouse	II	440925	357088
1108888	Swan Farmhouse	II	439044	360457

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1108889	11, Main Road	II	438991	359310
1108890	Well Farm, No 10 And Attached Barn	II	439017	359281
1108891	The Haven, Higham	II	439010	359147
1108892	Holly Tree Farmhouse	II	439048	359281
1108893	Stable Block To East Of Bull Farmhouse, Higham	II	439058	359168
1108894	Nos 26, 27 And 28 With Attached Barn, Higham	II	439030	359103
1108895	Cross House	II	439028	359056
1108896	No 43, Higham	II	439023	358865
1108897	Amber Farmhouse	II	438632	356955
1108899	Lodge House	II	441676	370894
1108900	Church Of St Paul	II	439716	368556
1108901	Ruins Of Heath Old Church	II	445230	367108
1108902	The Thatched Cottage	II	444731	366981
1108903	Owlcotes Farmhouse And Attached Garden Wall	II	444222	368037
1108904	Sycamore Farmhouse	II	440775	359888
1108905	Lychgate At Church Of Holy Cross	II	440750	360092
1108906	The Elms	II	440858	365066
1108907	Old Cross	II	440942	364880
1108908	Railings, Gate Piers And Bollards, East Of Church Of St Lawrence	II	440477	364492
1108909	Stables At White Hart Inn	II	440956	364978
1108910	Barn West Of Morton Road Farmhouse	II	442251	361881
1108911	Cherry Tree House	II	443975	371337
1108912	Barn At Manor Farm	II	444495	371282
1108913	The Old Priory	II	444130	368930
1108914	Sutton Scarsdale Hall	II	444194	368904
1108915	Church Of St Mary	I	444212	368878

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1108916	Garden Walls And Gate Piers At Sutton Scarsdale Country Club	II*	443916	368804
1108917	Roadnook Farmhouse	II	437039	358142
1108918	Outbuilding	II	437066	358130
1108919	Holy Trinity Church	II	437287	359013
1108920	Lindway Lane Farmhouse	II	435905	358265
1108922	Glapwell Lane House	II	448005	366934
1108928	Palterton Hall	II	447462	368391
1108944	Numbers 2, 4 And 6 Including The Attached And Associated Back Yard Walls	II	446456	370397
1108945	Numbers 8-22 Including The Attached And Associated Back Yard Walls	II	446486	370399
1108946	Numbers 24-38 Including The Attached And Associated Back Yard Walls	II	446526	370403
1108948	Numbers 104-118 Including The Attached And Associated Back Yard Walls	II	446574	370266
1108949	Numbers 136-150 Including The Attached And Associated Back Yard Walls	II	446491	370259
1108951	Numbers 99-113 Including The Attached And Associated Back Yard Walls	II	446640	370345
1108952	Numbers 131-143 Including The Attached And Associated Back Yard Walls	II	446648	370259
1108953	Numbers 191-205 Including The Attached And Associated Back Yard Walls	II	446502	370220
1108984	Furnaces At Morley Park Iron Works, Morley Park	II	437998	349190
1108985	Ridgeway House	II*	436305	351440
1108986	Buckland Hollow Farmhouse	II	437547	351799
1108987	The Excavator Public House	II	437506	351773

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1108988	Hartsay Hall	II	437887	350418
1108989	Milepost At Sk 369 522	II	436953	352118
1108990	Yew Tree Farmhouse	II	438233	350285
1108992	Tag Farmhouse	II	440336	353789
1108993	Barn To South Of Turners Charity Farmhouse	II	441423	352972
1108994	Rowthorne Lodge	II	447111	364770
1108996	Conduit House South Of Hardwick Old Hall	II	446161	363623
1108997	Gazebo And Garden Walls At Hardwick Hall	II	446229	363746
1108998	Range Of Cottages To South West Of Hardwick Hall	II	446230	363494
1109000	Stables To North West Of The Hardwick Inn	II	445881	363330
1109001	Church Of St John The Baptist	II	446741	365234
1109010	Canal Bridge Adjacent To Number 26	I	435748	352355
1109012	Church Of All Saints	II	439867	350600
1109013	Butterley Hall	II	440570	351249
1109014	Milepost Adjacent To Number 8	II	439881	350284
1109015	Cromford Canal Embankment	II	435949	352300
1109016	Heage Windmill	II	436691	350783
1109017	4, Gun Lane	II*	436070	350868
1109018	Farm Dwelling At Gun Lane Farm	II	435894	351092
1109019	Barn To South Of Heage Hall	II	436422	351007
1109021	18, Malthouse Lane	II	435983	350764
1109024	Old Quaker Meeting House At Nodin Hill Farm	II	435741	351026
1109027	George Hotel	II	440916	355791
1109028	Alfreton Hall	II	440615	355759

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1109029	Pigeoncote To East Of Former Stable Block To Alfreton Hall	II	440740	355808
1109030	Sundial 15 Metres South East Of Porch To St Martin's Church	II	440745	355870
1109031	12, Church Street	II	440799	355817
1109032	Wycliffe Reform Church	II	440867	355771
1109033	House Of Confinement	II	440824	355395
1109034	War Memorial And Railings	II	440916	355764
1109036	Numbers 21 And Attached Garden Railings	II	442172	347954
1109037	Former Bank The Market Place	II	443467	346483
1109038	South East Derbyshire College	II	443526	346348
1109105	Church Of St John The Baptist	II	440641	344135
1109106	Morley Manor	II	440047	342607
1109107	Lodge To Morley Manor	II*	439918	342465
1109116	Church Of St Alkmund	II	434951	342770
1109117	Duffieldbank House	I	435123	343382
1109126	Outbuilding At Breach Farmhouse	II	441114	347692
1109127	Church Farmhouse And Attached Outbuilding	II	439816	346461
1109128	Tombstone 4 Metres To South Of South Porch Of St Marys Church	II*	439857	346477
1109129	Church Of St Mary	II	439863	346495
1109130	War Memorial To East Of St Mary's Church	I	439896	346508
1109131	Milepost 20 Metres West Of Denby Pottery Works	II	439149	347460
1109132	Park Hall Farmhouse	II	438155	347366
1109134	Church Of St Michael	II*	436385	344653
1109135	Oakdene Cottage	II	436414	344684
1109136	Rachdale Lodge	II	436314	343884

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1109137	Coxbench Hall And Attached Stableblocks	II	437041	343504
1109138	Church Of St Clement	II	437538	344498
1109139	Farmbuildings To North-West Of Castle Farmhouse	I	437354	343156
1109140	Grange Cottage	II	437482	343720
1109141	Cruck Barn And Attached Outbuildings At Manor Court	II	437772	345727
1109147	Asherfields	II	439558	352309
1109148	Amberley Farmhouse	II	437983	353064
1109149	Milepost	II	438245	353405
1109150	Coneygrey Farmhouse	II	438584	353844
1109151	Church Of St Matthew	II	438948	352575
1109152	Milepost To The West Of The Junction Of Chesterfield Road And Wood Lane	I	437749	351897
1109153	Amberside Farmhouse	II	437738	352044
1109154	Wingfield Hall	II	437543	355045
1109155	Stable Block At Wingfield Hall	II	437501	355045
1109156	The Ruins Of South Wingfield Manor House, Incorporating Manor Farmhouse And An Aisled Outbuilding To The South	II	437440	354742
1109157	Outbuilding To The South Of Windy Gap Farm	I	437685	355744
1109158	Road Bridge To The South West Of St Matthews Church	II	438259	355733
1109159	Railway Bridge South Of South Wingfield Stationmaster's House	II	438469	355649
1109160	Railway Bridge To The West Of Weirmill Bridge	II	437857	353643
1109161	Park Cottage	II	437529	355273
1109162	Wingfield House	II	437574	355453
1109163	The Manor	II	437512	355297
1109164	Dale Bridge	II	438648	356393

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1109165	Chesnut Farmhouse	II	436047	356175
1109168	Breach Farmhouse	II	441096	347678
1109209	The Lawn	II	435594	348022
1109210	Two Sets Gate Piers, Small Gate And Garden Wall At Numbers 112 And 114	II	435560	348010
1109217	147, Over Lane, Belper	II	437093	347920
1109220	White Hart Public House	II	436150	346278
1109221	Hopping Hill Terrace Coal Shute Adjacent To Number 14 West Terrace	II	435072	345488
1109223	Gate Piers And Garden Wall To Spencer Road At The Lawn And Lawn Cottage	II	435788	347808
1109229	Wildersley Farmhouse	II	435356	346064
1109230	Mile Stone In Front Of Holly Bush Inn	II	435193	344663
1109231	Pear Tree Cottage	II	435072	345414
1109232	29 And 30, Hopping Hill	II	434953	345531
1109233	Cartshed (To North Of War Memorial Derby Road)	II	435066	345386
1109234	57-64, Hopping Hill	II	435045	345408
1109235	Lodge Farmhouse	II	436583	349154
1109238	Pottery Methodist Church And Adjoining Schoolroom	II	436109	347884
1109239	Pottery Farmhouse	II	436394	347606
1109246	Makeney Terrace	II	435217	344438
1109247	Retaining Walls To Weirs In River Derwent Near Former Forge Mill	II	435066	345046
1140154	Cotton Doubling Mill At Draycott Mills	II	444252	333208
1140155	Cartshed And Stable At Draycott Mills	II	444255	333232
1140411	"Number 2 (The Brick Barn) And Number 4 (The Stone Barn)"	II	436169	341467
1140412	Lychgate At Church Of St Paul		436108	341488
1140413	The Hatherings	II	436022	341850

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1140414	Churchyard Cross	II	439672	340919
1140415	"The Recreation Room Tithe Barn And Dovecote"	II	439675	340956
1140416	The Retreat House	II	439696	340881
1140417	Milepost At Os 394 414		439409	341545
1140418	Gateway Attached Retaining Wall And Garden Seat At Morley Manor	II*	440103	342571
1140419	Grove Farmhouse	II	445349	338573
1140422	The Old School	II	443111	341197
1140423	Church Of St Wilfrid	II	443218	341116
1140429	Locko Park Lodges	II	440276	337884
1140430	Bridge Over Weir In Locko Park At Sk 406 378	II	440548	337914
1140431	Locko Park	II*	440967	338648
1140432	West Lodge At Locko Park	II	441059	338723
1140433	Ice House Approximately 150 Yards East Of Locko Park	II	441187	338561
1140434	"Abbey House Manor House"	II*	443709	338694
1140435	Abbey Ruins	II	443749	338740
1140436	Church Of All Saints And Vergers Farmhouse	II	443733	338582
1140447	Barn With Byres To South West Of The Elms		436115	341250
1140448	Former Malthouse To South Of The Elms	II	436136	341232
1140449	Derwent House	I	435501	342319
1140450	Church Farmhouse	I	436199	341479
1141231	Stable Block North West Of Breadsall Priory	II	438098	341443
1141241	Thatched Barn	II	443572	338681
1157875	Old Rectory	II	440716	360079
1157944	St Lawrence	II	440965	364866

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1157973	Urinal Next To North Side Of Tower Parish Church	II	440446	364470
1158007	Morton Road Farmhouse And Attached Outbuildings	II	442273	361882
1158014	Sitwell Lane Cottages	II	442528	362171
1158097	Sutton Manor	II	444490	368690
1158212	The Old House	II	434653	342849
1158235	Duffield Church Bridge	II	435036	342966
1158252	The Stables To North Of Holbrook Hall	II	436298	344644
1158257	Highfields Farmhouse And Attached Outbuildings	II	436502	345014
1158262	Nether Cottage And Attached Outbuildings	II	436584	344818
1158273	Outbuildings And Attached Gingang At Birchwood Farm	II	436753	343316
1158277	Stocking Frame Knitters Workshop To Rear Of Numbers 18 And 20	II	436433	344939
1158300	The Sophia Water Fountain At Sk 376 445	II	437641	344489
1158340	Castle Farmhouse	II	437393	343128
1158343	Milepost Opposite Sewage Works Drive At Lower Kilburn Sk 374 449	II	437410	344962
1158346	Garden Wall And Towers At Stainsby House	II	440401	344229
1158391	Mapperley Park Farmhouse And Cottage	II	442592	343175
1158447	Chest Tomb 1 Metre To North Of Chancel Of St Martin's Church	II	440746	355891
1158454	Barn Adjoining Number 16	II	440868	355804
1158471	Milepost Abutting Church Street Front Of George Hotel	II	440921	355780
1158478	1, Raglan Street	II	441432	355705
1158479	Smalley Lodge	II	441608	344038
1158485	Wall And Well Head At Smalley Lodge	II	441594	344052
1158487	Barn To South-East Of Roadnook Farmhouse	II	437074	358124

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1158496	2, King Street	II	440893	355766
1158503	L Shaped Range Of Cowsheds 10 Metres To East Of Roadnook Farmhouse	II	437090	358147
1158505	Smalley Hall And Conservatory	II	440734	343928
1158507	Croft Infant School	II	441111	355478
1158521	Lychgate To Holy Trinity Church	II	437260	358984
1158522	Church Of St James	II	441861	348743
1158533	Teapot Farmhouse And Attached Barn	II	437005	358954
1158569	Barn To Rear Of Number 21	II	442155	347937
1158590	Registry Office	II	443454	346490
1158609	Handley Lodge Farmhouse And Attached Outbuildings And Garden Wall	II	437960	362274
1158614	8 Market Place	II	443545	346479
1158636	Henmore Cottage	II	438025	363742
1158646	Strathfield House	II	439070	361352
1158790	Church Of St Leonard	II	439970	358459
1158838	Mile Post Opposite Hilltop Farmhouse	II	439223	361010
1158845	Mile Post 14 Metres North Of Quarry Farmhouse, Higham	II	439048	359457
1158859	13, 13A, 14, And 15, Higham, Main Road	II	439020	359308
1158873	Nos 22 And 23 Higham	II*	439051	359299
1158913	The Crown Hotel And No 32, Higham	II	439032	358935
1158920	Higham House	II	439025	358890
1158923	26 And 28 Bullbridge Hill	II	435753	352370
1158931	Entrance Building To Butterley Company Works And Attached Steps, Bollards And Pillar	II	440127	351707
1158964	Church Of St Luke	II	436965	350627
1158989	Barn And Attached Walls To East Of Ford Farm	II	438068	360041
1158990	Waingroves Hall	II	441163	348606
1158998	Farmbuilding To Rear Of Waingrove Hall	II	441157	348648

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1159005	Egstow Hall	II*	439073	365008
1159009	Butterley Station	II	440230	351938
1159015	Hagg Hill House	II	440495	366022
1159018	Milepost At Sk 399 486	II	439964	348706
1159019	Garden Wall At Roadnook Farm	II	436981	358133
1159029	Gateway And Attached Wall To North Of Amber Farmhouse	II	438627	356992
1159034	Barn To North Of Amber Farmhouse	II	438616	357013
1159037	Windmill House	II	436717	350744
1159040	Dell Farmhouse	II	437399	357287
1159046	Gun Lane Farmhouse And Attached Farmbuildings	II	435902	351146
1159055	Heage Hall	II	436444	351058
1159063	Padley Hall	II	439460	351434
1159081	Starvehimvalley Bridge	II	437572	351338
1159099	Foreclose Farmhouse	II	436460	349455
1159173	Bridge Over River Amber At Sk 360 524	II	436022	352269
1159205	Swanwick Hall School	II*	440500	353060
1159238	110, 112 And 114, Derby Road	II	440319	353153
1187158	Numbers 88-102 Including The Attached And Associated Back Yard Walls	II	446605	370298
1187159	Garden Walls To West Of Farm Outbuilding, To The West Of The Stables To Wingfield Hall	II	437472	355049
1187163	Numbers 120-134 Including The Attached And Associated Back Yard Walls	II	446557	370265
1187170	Numbers 152-166 Including The Attached And Associated Back Yard Walls	II	446451	370256
1203463	Plover Hill Farmhouse	II	440488	371531
1203519	Longcroft Farmhouse	II	441479	329611
1203525	Lychgate And Attached Churchyard Walls To All Saints Church	II	441497	329391

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1203527	Chest Tomb 5 Metres North Of South Porch To All Saints Church	II	441483	329367
1203675	Churchyard Walls And Attached Curtain Wall Between Coach House And Elvaston Castle	II	440736	332993
1203694	Information Centre And Shop At Elvaston Castle	II	440690	333004
1203697	Stables To West Of Elvaston Castle Coach House	II	440667	333021
1203833	Boat House At Elvaston Castle To East End Of The Lake	II	441028	333012
1203884	Milepost At Sk 414 315 South Of Thulston Grange	II	441401	331506
1203905	Gardens Farmhouse	II	441076	332711
1204152	The Cottage At Draycott House	II	443826	334941
1204353	Canal Bridge At Sk 412 347	II	441118	334600
1204357	61 And 63, Church Street	II	442321	335860
1204363	24 The Ridings	II	442506	335913
1204369	70, The Ridings	II	442638	336067
1204379	The Moravian Manse	II	442126	336169
1204382	The Moravian Chapel/Church	II	442138	336176
1204390	Liley House	II	442142	336189
1204404	Riverside House	II	441436	334163
1204411	Coach House To North West Of Riverside House	II*	441418	334192
1204466	Garden Walls And Gateway To North Of Risley Hall	II*	446053	335636
1204758	Outbuildings To South East Of Kings Newton House	II	439071	326170
1204778	Four Gables	II	438782	326172
1204785	58 Main Street	II	438886	326186
1205049	Elms Farmhouse	II	439012	326415
1205061	32, Trent Lane	II	439038	326400
1205218	Shardlow School	II	443207	330606
1205223	83 London Road	II	443495	330453

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1205228	Shardlow Manor	II	443608	330361
1205245	Number 2 Store	II	444277	330307
1205265	No. 21, DOBSON'S BOATYARD, THE WHARF	II	444250	330346
1205270	Number 3 Mill	II	444298	330439
1205307	Cat And Fiddle Mill	II	443793	339778
1205308	The Firs	II	444416	330461
1205318	44A, THE WHARF (See Details For Further Address Information)	II	444391	330453
1205326	Outbuildings To North Of Cat And Fiddle Mill	II	443788	339801
1205393	The Lady In Grey	I	444375	330330
1205413	Wilne Farmhouse	II	444876	330947
1205463	Outbuilding To West Of Former Methodist Chapel	II	443626	338780
1205498	Gate Piers And Gate	II	436772	327195
1205519	Hollies Farmhouse	II	437115	327286
1205525	Rosedene	II	437265	327252
1205556	Churchyard Cross To South Of St James' Church	II	437196	328582
1205653	Tithe Barn Near Old Hall Farmhouse	II	437380	328554
1205689	Trent And Mersey Canal Lowes Bridge	II	436489	329066
1205708	Trent And Mersey Canal, Canal Milepost At Swarkestone Stop Sk 368 291	II	436818	329108
1205726	Trent And Mersey Canal Outbuilding To East Of Canal Toll House At Swarkestone Stop	II	436900	329115
1205737	Church Of St Mary	II	439765	327597
1205789	Barn With Byres And Hay Lofts South East Of The Elms	II	436138	341267
1205796	The Poplars	II	436172	341333
1205800	Outbuilding To South West Of Number 18	II	436183	341476
1205831	The Croft	I	439123	342439
1205838	Church Of St Matthew	II	439662	340936

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1205858	Trent And Mersey Canal Weston Lock	II	440827	327802
1205888	Mausoleum West Of Saint Matthews Church	II	439629	340938
1205892	Trent And Mersey Canal Scotch Bridge	II	440213	327486
1205898	Barn To North Of The Recreation Room	I	439695	340964
1205915	Rectory Farmhouse	II	440102	327752
1205956	Morley Almshouses	II*	438656	341301
1206126	Village Hall	II	443214	341211
1206154	War Memorial	II	443236	341212
1216179	Pear Tree Cottage	II	437809	330459
1218499	The Miners Arms Public House	II	435474	361724
1218500	Road Bridge South Of Wash Farmhouse	II	435541	361745
1218501	Common Bank Cottage	II	435418	362126
1218513	Dalebank Farmhouse	II	436102	361706
1218516	Ashover Hay Primitive Methodist Chapel	II	435746	361108
1218524	Milltown Farmhouse And Attached Outbuilding	II	435556	361294
1218525	West View	II	435954	361053
1227838	White House Farmhouse	II	438236	330406
1227902	Church Of St Peter	II	438117	330378
1229612	4, Swarkestone Road	II	437897	330242
1230230	Bowes House	II	440001	336214
1230474	The Old School	II	439949	336238
1232504	K6 Telephone Kiosk	II*	435154	345186
1236598	Ha Ha, Walls, Gates, Clock Tower, Sculptures And Terracing At Locko Park	II	440904	338626
1236773	Stable Block To North Of Locko Park	II	441022	338693
1240539	Common Bank House	II	435451	362111
1240647	The Croft, Croft House And West Croft	II	442304	335990
1241183	Eastwood Hall And Eastwood Hall Cottage	II	435828	362817
1241794	Fallgate Mill	II	435412	362278

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1242404	Outbuilding North Of Knutting Fields Farmhouse	II	436415	363511
1250046	Cotton Spinning Mill, Office Block And Remains Of Engine House Etc At Draycott Mills	II	444205	333179
1250092	Leavers Machine Shed At Draycott Mills	II	444248	333167
1250121	Cotton Warehouse, Attached Chimney And Outbuilding At Draycott Mills	II	444165	333181
1251435	The Shakespeare Inn	II	443701	330361
1253774	4, Sunny Hill	II	434894	345128
1253776	8-12, 12A And 14, WELL LANE	II	434930	345196
1260671	Dale Cottage Farmhouse	II	435994	361620
1260963	Stubben Edge Cottage	II	436150	361880
1280316	Trent And Mersey Canal, Canal Milepost To East Of Weston Grange At Sk 420 286	II	442039	328632
1280445	Morley House Farm	II	439362	341112
1280448	Morleymoore Farmhouse	II	439062	342245
1280451	Quarry Farmhouse	II	438685	342477
1280454	Church Cottage	II	441926	340452
1280464	Trent And Mersey Canal, Canal Milepost At Sk 392 274	II	439266	327445
1280573	Queen's Head Inn And Attached Coach House	II	436324	341423
1280575	The Elms Farmhouse	II	436121	341294
1280604	Swarkestone Old Hall And Attached Walls	II	437413	328468
1280612	Crewe And Harpur Arms	II	436868	328600
1280643	Reading Rooms	II	437178	328548
1280753	24 And 26 Wilne Lane	II	444896	330912
1280803	139, London Road	II*	444326	330294
1280805	7 The Wharf	II	444192	330386
1280835	Farm Buildings To South West Of Shardlow Hall	II	443721	330413
1280887	Broughton House	II	444330	330282

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1280933	Railway Bridge Over The River Trent	II	438902	327511
1281205	Pair Of Matching Urns To East Of Garden Front Of Risley Hall	II	446030	335610
1281214	20, The Settlement	II	442150	336212
1281215	29 And 31, The Settlement	II	442206	336157
1281243	Ockbrook School	II	442102	336157
1281270	Gate Piers And Lychgate With Attached Railings And Wall Round All Saints Churchyard	II	442333	335718
1281272	Ivy House	II	441542	334613
1281333	Victoria Mill	II	444612	333280
1281336	Church Of St Chad	II	444894	331847
1281464	The Clock House	II	441004	332560
1281505	Milepost At Sk 399 321	II	439945	332183
1281574	16 Weston Road	II	441450	329488
1281577	Ambaston Grange Farmhouse	I	443370	331820
1281625	Church Of All Saints	II	441489	329349
1281667	6, The Green	II	441548	329481
1287446	1a, Green Avenue	II	438156	330412
1287488	A Range Of Loose Boxes To East Of White House Farmhouse With Barns (Now Partly Demolished) On Return Side In Aston Lane	II	438277	330416
1291948	Pound To The South Of The Miners Arms	I	435476	361683
1291949	Wash House	II	435522	361814
1298841	Hovel To The South Of The Stables To Wingfield Hall	II	437507	355019
1299007	Almshouses	II	435229	347498
1311119	Oakstone Cottage	II	440528	353274
1311127	Wingfield Park Lodge	II	437623	351813
1311140	Church Of St Andrew	II	440432	353217
1311174	Milepost At Sk 409 504	II	440928	350370
1311235	Castle Farmhouse And Attached Barn	II	437943	360718

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1311257	Canal Tunnel And Embankment Under Road To West Of Car Park To Excavator Public House	II	437405	351838
1311266	Village Cross, Higham	II	439021	359093
1311270	Number 29 And Attached Cottage	II	439027	359078
1311281	Amber Hill Bridge	II	438729	356884
1311299	Bull Farmhouse, Higham	II	439033	359169
1311399	Yew Tree Farmhouse	II	439277	358247
1311409	Deerleap Cottages	II	436741	363087
1311422	Ashmore House	II	437810	363677
1311456	Garden Steps To South Of Morley Manor	II	440069	342598
1311460	Church Of St Lawrence	II	443581	346440
1311463	The Plough Inn And Attached Barn	II	435992	358749
1311534	Kilburn Hall	II	437821	345781
1311587	Gate Piers At North West Entrance To Churchyard	II	434911	342791
1311598	Gates, Attached Wall And War Memorial To North Of St Michael's Church	II*	436388	344700
1311654	Ice House 25 Yards North West Of Hall Farmhouse	II	443842	368961
1311668	"Hall Farm Cottages Stables And Coach Houses Sutton Hall Stables The Stables Willow Court"	II	443997	368874
1311680	Garden Walls And Attached Ha Ha At Sutton Scarsdale Hall	II	444252	368996
1311698	Manor Farmhouse	II	444466	371294
1311703	The Manor House	II	440494	364460
1311716	Williamthorpe Hall Farmhouse Shop		442973	365849
1311722	Morton Miners Welfare		440826	360079
1311732	Bright Street Farmhouse		440846	365001
1328834	Breadsall Priory		438145	341418

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1328837	Millers House To South Of Cat And Fiddle Mill	II	443810	339765
1329210	Clock House	II	436146	341053
1329230	Church Of St Paul	II	436128	341504
1329231	Parish Room	II	436078	341541
1329232	Church Farmhouse	II	439526	340915
1329233	The Village Cross	II	439591	340890
1329234	Milepost At Os 389 401	II	438975	340078
1329235	Church Of St Andrew	II	441931	340419
1329238	"Cinder Cottage Ye Olde Cinder House"	II	442464	341600
1329239	Gates And Gate Piers Approximately 70 Yards South East Of Locko Park	II	440992	338606
1329240	Boyah Grange	II	444370	338076
1329241	Abbey Farmhouse	II	443698	338813
1329242	Friars House	II	443627	338731
1329363	Kitchen Gardens To The East Of Foremark Hall	II	433461	326533
1329374	Signal Box To The North Of Track 480 Metres West Of Butterley Station, And 30 Metres East Of Asher Lane Railway Crossing	II	439836	351926
1329375	Tulip Tree House	II	442208	335847
1329376	Cotton Processing And Storage Buildings At Draycott Mills		444226	333207
1334536	3 And 5, The Cross	II	430340	327051
1334537	Homelands	II	430586	326640
1334545	Lodge Cottage	II	435340	328532
1334546	St Wilfrids	II	435230	328415
1334547	2-18 Twyford Road	II	435304	328561
1334548	Littlecroft	II	435205	328599
1334557	27-29, High Street	II	430480	326857
1334559	Entrance Gate To Number 16	II	430721	326463
1334560	Church Of St Wystan	II	430299	327168

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1334561	Gate Piers To Repton School	II	430327	327228
1334562	The Thatched House	II	430275	327084
1334563	Wall And Attached Outbuilding South Of Twyford Church	II	432709	328484
1334564	Stenson Lock And Attached Bridge To East	II	432566	329961
1334565	3 And 5, Bargate Lane	II	429615	328166
1334566	Church Of St Michael	II	429486	328167
1334570	Cowhouse To South East Of Number 19	II	430762	330365
1334571	Ice House At Os 331 262	II	433102	326261
1334572	Two Sets Of Gatepiers And Walls Enclosing Churchyard Of St Saviours Church	I	432974	326488
1334573	Elm Farmhouse And Attached Outbuildings	II	434765	327078
1334574	10 Burton Road	II	430295	326918
1334587	44 Repton Road	II	429502	328092
1334602	Chest Tomb 20 Metres South Of Lychgate To All Saints Church	II	441500	329372
1334603	Trent And Mersey Canal Aston Lock And Aston Lock Bridge	II	442460	329181
1334604	Elvaston Castle	II	440785	333004
1334605	Sheep Dip In Service Court At Elvaston Castle	II	440692	333032
1334624	Broadways	II	438714	326159
1334625	54 And 56 Main Street	II*	438871	326182
1334626	The Kennels	II	440514	332966
1334627	Farmbuildings To West Of St Bartholomew's Church At Elvaston Castle	II	440624	332968
1334628	Thurlaston Grange	II	441393	331702
1334635	Wall And Gate To Broughton House	II	444324	330274
1334636	The Dower House	II	443431	330453
1334637	Entrance Gates And Wall To Shardlow Hall	II*	443811	330366

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1334638	Trent And Mersey Canal, Canal Milepost On Opposite Side Of Canal To Ivy House At Sk 443 303	II	444381	330391
1334639	9-11 And 15-17 The Wharf	II	444209	330427
1334640	Former Iron Warehouse South Of Nos 40 And 42 The Wharf	II	444370	330432
1334641	Canal Building To South Of 47 The Wharf	II	444442	330502
1334642	36, Wilne Lane	II	444897	330989
1334643	Kings Newton House And Attached Gates And Outbuildings	II	439041	326205
1334644	Outbuilding To East Of Kings Newton Hall	II	438840	326192
1334652	Crofton House	II	439059	326237
1334653	The Dog And Duck Inn	II	443416	330423
1334663	Churchyard Gates And Walls At St James' Church	II	437174	328593
1334664	Pair Of Gate Piers To North West Of Swarkestone Hall At SK 372 287	II	437230	328771
1334665	Bridge Farmhouse And Attached Farm Building	II	436902	328601
1334666	Trent And Mersey Canal, Canal Toll House At Swarkestone Stop	II	436891	329114
1334667	Trent And Mersey Canal Bridge At Weston Lock	II	440845	327811
1334668	41 Main Street	II	440330	328000
1334669	Trent And Mersey Canal Sarson's Bridge	II	438953	327765
1334672	No 1, Canal Bank	II	444238	330267
1334673	The Clock Warehouse	II	444114	330237
1334689	Range Of Farm Buildings To North Of The Manor House	II	439427	368994
1334690	Hady House	II	439424	370837
1334698	Former Threshing Barn To North East Of Plover Hill Farmhouse	II	440496	371552
1334824	Church Farmhouse	II	442396	335731

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1334825	Columbine Farmhouse And Attached Outbuildings	II	443215	338479
1334826	Little London Farmhouse	II	443391	337220
1334827	Hillside Cottage	II	442217	336118
1334832	6, Church View	II	445956	333479
1334833	39, Main Street	II	445911	333488
1334834	Draycott Hall And Attached Outbuildings	II	444144	333039
1334835	Draycott Mills Front Range	II	444264	333184
1334836	Draycott House	II	443832	334913
1334851	Bobbin Milepost 90 Metres West Of Mount Pleasant (Sk 4494 3563)	II	444935	335641
1335268	Redhill Farmhouse And Redhill Cottage	II	435269	344331
1335295	"Numbers 1-14 West Terrace And 15-23 East Terrace, Hopping Hill Terrace	II	435104	345453
1335296	"Lawn Cottage The Lawn"	II	435791	347838
1335297	7 And 9, Sunny Hill	II	434884	345082
1335302	The Holly Bush Inn	II	435191	344671
1335303	1-28 Hopping Hill	II	434979	345509
1335304	31-52, Hopping Hill	II	434908	345568
1335307	Forge Cottage	II	435074	344911
1335308	Stables And Coach House To Wingfield House	II	437567	355468
1335309	Prospect House	II	437510	355192
1335332	Gatepiers And Garden Walls To Park Hall Farmhouse		438165	347367
1335333	Holbrook Hall	II	436311	344597
1335334	Farmbuildings To South Of Highfield Farmhouse		436497	344990
1335335	Stocking Frame Knitter's Workshop To Rear Of Number 10	II	436398	344875
1335336	Old Post Box Opposite Horsley School	II	437789	344454
1335337	Top Farmhouse	II	437889	345852
1335342	The Peacock Hotel And Attached Cottage	II	438913	355910

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1335343	Outbuilding To The West Of The Stables To Wingfield Hall	II	437482	355033
1335344	Outbuilding To The South Of Malthouse Farmhouse	II	437602	355559
1335345	Stationmaster's House At Wingfield Station	II	438506	355719
1335346	Fritchley Windmill Tower	II	436492	353278
1335347	Outbuildings To The South Of Manor Cottage	II	437529	355184
1335362	Burley House	II*	434980	341939
1335365	Road Bridge Over Railway By Duffield Church	II	434824	342919
1335366	Duffield Bank Cottage	II	435224	343349
1335368	Alfreton House	II	441275	355795
1335370	90 And 92, Derby Road	II*	442918	346371
1335371	Donavon Monument To North Of Cemetery Chapel At Marlpool Cemetery	II	443603	345830
1335388	Coach House To North East Of Swanwick Hall	II	440559	353070
1335389	Turners Charity Farmhouse	II	441416	352984
1335390	Former Sunday School	II	443660	363251
1335391	Joiner's Shop To North Of Saw Mill	II	446231	363414
1335392	Chest Tomb 10 Metres South West Of Church Of St John The Baptist	II	446725	365216
1335397	17, Boothgate	II	436952	349199
1335398	Building To West Of Gate House And Butterley Company Works	II	440117	351700
1335400	Waingroves Cottage	II	441142	348618
1335401	Signal Box 30 Metres North East Of Cumberland House At The Midland Railway Trust Station	II	440378	351962
1335405	Former Stableblock To Alfreton Hall	II	440680	355818
1335406	Church Of St Martin	II	440731	355885
1335407	17, Church Street	II	440885	355788
1335408	Bainbridge Hall	II	446690	370177

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1335422	Coppice Farmhouse	II	440625	349549
1335424	Crowtrees Farmhouse	II	437433	350521
1335425	Two Pairs Of Gates And Adjoining Wall At Hartsay Hall	II	437903	350422
1335439	Former Miners Welfare	II	446436	370400
1335440	K6 Telephone Kiosk	II	446443	370442
1335442	Numbers 72-86 Including The Attached And Associated Back Yard Walls	II	446601	370340
1335443	Former Co-Operative Village Stores And Numbers 1-5 Including The Attached And Associated Back Yard Walls	II	446445	370437
1335445	Numbers 159-173 Including The Attached And Associated Back Yard Walls	II	446603	370230
1335446	Sundial To South Of Ogston Hall	II*	437813	359690
1335447	Coach House To North Of Ogston Hall	II	437780	359763
1335449	Cemetery Chapels	II	439735	362871
1335451	Milepost 15 Metres East Of Rose Villa	II	439241	362588
1335452	Furnace House	II	438970	356858
1335454	33, Main Road	II	439048	358920
1335455	53 Main Road	II	439053	358762
1335456	Amber House And Attached Mill	II	438886	356925
1335457	Church Of St Peter	II	440782	370954
1335458	Church Of All Saints	II	444822	367079
1335459	High House Farmhouse	II	443702	367535
1335460	Alcove And Attached Wall North Of Owlcotes Farmhouse	II	444161	368089
1335461	Church Of Holy Cross	II	440725	360115
1335462	The Homestead	II	440888	364982
1335463	Church Of St Lawrence	II	440461	364462
1335464	Blue Bell Inn	II	440471	364521
1335465	Broomhill Farmhouse	II	437717	358731
1335475	77 And 79, Higham	II	439050	358898
1335476	1, Town End	II	439809	358836

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1335478	Hawksley House Farm And Attached Barn	II	437470	361784
1335479	Boar Farmhouse	II	437534	361155
1335480	Barn North Of Hagg Hill House	II	440484	366048
1335481	Christ Church	II	437267	357605
1335482	Hay Farmhouse	II*	436328	357445
1335668	Church Of St John The Baptist	II	435243	347532
1335688	171 And 173, Far Laund	I	436029	348909
1335689	Three Iron Posts At Top Of West Steps To Footpath In Front Of Chevin Alley	II	434977	345150
1335691	Milford Baptist Chapel	II	434928	345278
1335716	Northern Premises Of Bill Lomas (Motor Cycles) Limited And A Pair Of Cottages Adjoining To The North	II	435153	345152
1335717	Quarry Cottages	II	435156	345177
1335718	War Memorial	II	435085	345365
1335719	Chimney At Milford Dyehouse	II	435015	345163
1335720	Milford House	II	434874	344986
1335721	Moscow Farmhouse	II	434670	344478
1335722	Stone Ramp And Walls To Foldyard At Moscow Farm	II	434630	344434
1346577	47, Sunny Hill	II	434676	345066
1347790	43 And 45, Park Side	II	435380	347456
1347805	The Cottages At King's Mills	II	441782	327440
1347930	Makeney Yard	II	435198	344496
1348374	65, Hopping Hill	II	435018	345441
1361332	The Countess' Cross	II	441647	327100
1361337	The Priest House Hotel	II	441753	327471
1361338	Mill Wheel And Retaining Walls To Mill Stream At King's Mills, Circa 35 Metres To South West Of The Priest House Hotel	II	441723	327444
1361349	Bridge Over Mill Stream At King's Mills, With Walls To Mill Stream And Mill Wheel	II	441750	327436

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1361368	Cavendish Cottages	II*	444560	329833
1366590	Lychgate And Churchyard Wall At St Wystan's Church	II	430322	327112
1367036	The Croft, Bursar's Office And Attached Gate Piers To West	II	430345	327031
1367042	No 11, The Cross	II	430334	327062
1370018	Beech Hill Farmhouse	II	436808	352950
1370039	Ingleby Toft	II	435504	326488
1370041	Manor Cottage	II	437534	355204
1370054	Outbuilding To The West Of Wingfield House	II	437552	355460
1372015	Numbers 115-129 Including The Attached And Associated Back Yard Walls	II	446644	370299
1372017	Numbers 145-157 Including The Attached And Associated Back Yard Walls	II	446637	370233
1372029	Malthouse Farmhouse And Boundary Wall To East	II	437613	355572
1372036	Tower House	II	430276	330725
1372038	Numbers 175-189 Including The Attached And Associated Back Yard Walls	II	446538	370223
1372039	Corner House	II	430886	330538
1372040	Numbers 207-221 Including The Attached And Associated Back Yard Walls	II	446446	370215
1372284	The Manor House	II	439413	368954
1372623	Crewe Cottage	II*	440156	372224
1374146	Stenson Lock Cottage	II	432585	329931
1374149	Stenson House	II	432604	330066
1380206	Garden Terraces, Walls, Glasshouses And Fernery To North-West Of Locko Park	II	440887	338758
1382028	War Memorial	II	437864	345821
1389342	Former Well House To North Of No 14	II	434930	345214

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1389541	Brook House	II	436143	345116
1391227	K6 Telephone Kiosk	II	432063	326470
1392410	Dovecote At Ridgeway Farm	II	431296	326056
1417619	Hills Bridge (Spc8 63)	II	438545	358363
1417622	Nooning Lane Bridge (Spc6 12)	II	443190	333699
1417626	Bull Bridge (Spc8 47)	II	435822	352144
1417639	Ogston Lane Bridge (Spc8 65)	II	438489	359685
1417640	Beatties Bridge (Spc8 55)	II	438240	354452
1417641	Holmes Water Bridge (Spc8 64)	II	438459	358743
1417642	Amber River Bridge (Spc8 54)	II	437946	353773
1417682	Wingfield Tunnel North Portal (Spc8 51p2)	II	437055	352949
1417683	Wingfield Tunnel South Portal (Spc8 51p1)	II	436854	352819
1417687	Potters Bridge (Spc8 52)	II	437542	353298
1417688	South Wingfield Footpath Bridge (Spc8 56)	II	438410	355460
1417690	Amber Mill Bridge (Spc8 61)	II	438764	356904
1417693	Alfreton Stream Bridge (Spc8 60)	II	438708	356529
1417699	Clay Cross Tunnel South Portal (Spc8 68p1)	II	438899	362820
1428736	War Memorial, St Stephen's Churchyard	II	441695	334430
1429138	Ault Hucknall War Memorial	II	445523	365352
1430179	Ockbrook And Borrowwash War Memorial	II	442012	335357
1430663	Danesmoor War Memorial	II	440257	363195
1437844	Morton War Memorial	II	440812	360137
1438316	War Memorial At Twyford Road, Barrow-Upon-Trent	II	435226	328537
1438668	Stanley And Stanley Common Parish War Memorial	II	441898	340372
1440918	Elvaston War Memorial	II	441038	332391
1455443	Manor Farm Cottage	II	444059	364188
1455477	Hasland War Memorial	II	439595	369550
1459467	Calow War Memorial	II	441431	370993

NHLE (National Heritage List for England) Number	Name	Grade	Easting	Northing
1459469	Duffield War Memorial	II	434897	342797
1459473	Shardlow War Memorial	II	443796	330348
1486012	Swanwick Common Colliery Headstock And Winding House	II	440475	354414

Appendix 8B. Non- Designated Heritage Assets

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Contents

Appendix 8B Non-Designated Heritage Asset Gazetteer

Table 8B 1.1 – Non-Designated Heritage Asset Gazetteer

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Table 8B 1.1 – Non-Designated Heritage Asset Gazetteer

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
Non-Designated Heritage Assets					
MDR4315	Middle Bronze Age Spearhead, River Trent, Ingleby	Findspot	Bronze Age	434050	327460
MDR4379	Bronze knife, Green Lane, Barrow-on-Trent	Findspot	Bronze Age	435330	328180
MDR4401	Cropmark enclosure, Barrow upon Trent	Enclosure	Undated	435900	329600
MDR4405	Flint knife or scraper, Swarkestone Bridge	Findspot	Prehistoric	436911	328483
MDR4409	Iron Age Beehive Quern, south-east of Barrow-on-Trent	Findspot	Iron Age	435900	327800
MDR4411	Waterfront structure, east of Green Lane, Barrow-upon-Trent	Weir; Flood Defences	Medieval	435200	327800
MDR4412	Base and body sherd, C2 bowl, Barrow-on-Trent	Findspot	Romano-British	435500	327300
MDR4419	Beehive Quern, Glebe Farm, Weston upon Trent	Findspot	Iron Age	439100	328900
MDR4680	Medieval market cross (site of), St Mary's Churchyard, Denby	Market Cross	Medieval	439900	346500
MDR4686	Approximate site of 14th century coal mining, Morley Park	Mine	Medieval	437900	348900

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4738	Coin of Trajan, Coxbench Quarry, Horsley	Findspot	Romano-British	437470	343350
MDR4740	Market cross (site of), Horsley	Market Cross	Medieval	437590	344490
MDR4753	Bronze palstave, Horsley Castle	Findspot	Bronze Age	437600	343100
MDR4754	Romano-British Derbyshire ware, Horsley Castle or Horsleygate (Holmesfield)	Findspot	Romano-British	437700	343100
MDR4760	Barbed and Tanged Arrowhead, Coxbench, Horsley	Findspot	Prehistoric	437300	343600
MDR4770	Park Brook, Earthwork, Possible windmill mound.	Windmill Mound	Medieval	438250	343700
MDR4770	Park Brook, Earthwork, Possible windmill mound.	Windmill Mound	Medieval	438200	343700
MDR4772	Horsley Lodge, Roman and Medieval pottery scatter.	Findspot	Romano-British to Medieval	439100	344000
MDR4773	Horsley, Flint knife and flake.	Findspot	Prehistoric	438200	343400
MDR4773	Horsley, Flint knife and flake.	Findspot	Prehistoric	438200	343450
MDR4774	Roman pottery scatter.	Findspot	Romano-British	438200	343500
MDR4775	Roman pottery scatter.	Findspot	Romano-British	439000	344100
MDR4783	Mound by Park Brook, Horsley - possible watermill site	Mound; Watermill?	Medieval	437850	343950

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4784	Horsley Lodge, Medieval Pottery	Findspot	Medieval	439100	344000
MDR4786	New Plantation, Earthwork	Mound	Undated	438350	343800
MDR4787	Horsley, Romano-British Derbyshire Ware	Findspot	Romano-British	438200	343500
MDR4886	Probable Roman building (site of), South Wingfield	Building	Undated	439100	356300
MDR4889	Toadhole Furnace iron furnace (site of), Toadhole Furnace, Shirland and Higham	Blast Furnace	Post-medieval	439020	357000
MDR4893	Migrated medieval village, South Wingfield	Migrated Village	Medieval	438300	355700
MDR4908	Matlock Road, Timber Raft	Causeway?	Post-medieval	438050	357150
MDR4947	Middle or Late Bronze Age bronze spearhead, Heage, Ripley	Findspot	Bronze Age	438380	350250
MDR4957	Water mill, fishpond and stocks (site of), Wingfield Park, South Wingfield	Watermill; Stocks; Fishpond	Medieval to Post-medieval	437800	354900
MDR4967	Ridge and furrow and trackway, Amberley Farm, Pentrich	Ridge And Furrow; Trackway	Medieval	438250	353200
MDR4968	Pottery sherd, northeast of Coneygrey House, Pentrich	Findspot	Romano-British	438910	353960
MDR4973	Windmill cross base, Laburnum Farm, Pentrich	Windmill	Post-medieval	439000	353050

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5121	Stretton, IA?(Hunsbury-type)beehive quern-stone fd AD 1954	Findspot	Iron Age	438700	362000
MDR5121	Stretton, IA?(Hunsbury-type)beehive quern-stone fd AD 1954	Findspot	Iron Age	438400	361500
MDR5157	South Hill, Earthwork	Bank (Earthwork)	Undated	437700	361000
MDR5160	Smithy Moor, Bloom Smithy and Blast Furnace	Forge; Blast Furnace; Smeltery	Post-medieval	438600	361400
MDR5164	Early Mining Shafts and Mounds, North of Oxclose Farm	Shaft	Post-medieval	438200	362600
MDR5457	Romano-British settlement, east of Burnwood, Ockbrook	Site	Romano-British	443500	338000
MDR5472	Neolithic Axehead, Dale Abbey	Findspot	Prehistoric	442500	338600
MDR5485	Romano-British pottery, 100m north west of Bartlewood Lodge, Ockbrook	Findspot	Romano-British	442300	338100
MDR5486	Romano-British pottery, 150m south west of Bartlewood Farm, Ockbrook	Findspot	Romano-British	442100	337700
MDR5487	Romano-British pottery, 400m north west of Moor Lane Farm, Ockbrook	Findspot	Romano-British	442000	337450

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5493	Romano-British pottery, 350m north west of Hay Grange, Ockbrook	Findspot	Romano-British	442950	337450
MDR5494	Romano-British pottery, 400m north west of Hay Grange, Ockbrook	Findspot	Romano-British	443050	337500
MDR5495	Romano-British pottery, 350m north east of Little London, Ockbrook	Findspot	Romano-British	443680	337440
MDR5497	Romano-British pottery, 300m north east of Burnwood, Ockbrook	Findspot	Romano-British	443270	338030
MDR5497	Romano-British pottery, 300m north east of Burnwood, Ockbrook	Findspot	Romano-British	443250	338120
MDR5498	Romano-British pottery, 300m east of Burnwood, Ockbrook	Findspot	Romano-British	443300	337950
MDR5500	Romano-British pottery, 500m north east of Burnwood, Ockbrook	Findspot	Romano-British	443470	338150
MDR5501	Romano-British pottery, 550m south east of Burnwood, Ockbrook	Findspot	Romano-British	443470	337860
MDR5502	Romano-British pottery, 250m east of Windmill Farm, Ockbrook	Findspot	Romano-British	443180	335690

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5504	Iron Age ditch system, Little Hay Grange, Ockbrook	Ditch	Iron Age	443750	337520
MDR5505	Ridge and Furrow, 100m North of Locko Grange Farm	Ridge And Furrow	Medieval	441700	339200
MDR5506	Ridge and furrow	Ridge And Furrow	Medieval	441900	339300
MDR5509	Roman Pottery Scatter, Spondon Wood Farm	Findspot	Romano-British	441700	337600
MDR5510	Roman Pottery Scatter, 450m North East of Spondon Wood Farm	Findspot	Romano-British	441900	337600
MDR5511	Roman Pottery Scatter, 550m North East of Spondon Wood Farm	Findspot	Romano-British	441900	337700
MDR5515	Roman Pottery Scatter, 350m WSW of Duns Hill Cottage	Findspot	Romano-British	441900	338300
MDR5577	Roman site, Dale Abbey	Site	Romano-British	443500	338000
MDR5948	Viking silver ingot, north of Mansfield Road, Temple Normanton	Findspot	Early medieval	442600	367300
MDR6053	Iron Slag, Park House, Pilsley	Iron Working Site?	Undated	440900	363130
MDR7303	Swarkestone Lows Beaker Settlement, Lowes Lane, Swarkestone	Settlement?	Bronze Age	436860	329480

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR7361	Cropmark pits, Swarkestone	Pit	Prehistoric	436800	329510
MDR7633	Bronze axe, Smithy Farm, Morley	Findspot	Bronze Age	440600	341800
MDR4897	Edward I medieval coin hoard, Ogston Hall, Brackenfield	Findspot	Medieval	437792	359734
MDR7896	Five lead tokens, Calow	Findspot	Post-medieval	440735	370660
MDR8483	Roman and medieval pottery, Booths Wood, Holbrook	Findspot	Romano-British to Medieval	436824	345730
MDR8056	Possible remains of boat or landing stage, Repton	Wreck; Landing Stage	Undated	431348	327823
MDR5929	Roman potsherds, Sutton Springs Wood, Sutton cum Duckmanton	Findspot	Romano-British	442300	368600
MDR4751	Perforated stone hammer and several flint celts, Horsley Park	Findspot	Prehistoric	438040	343182
MDR4761	Railway station, Little Eaton-Ripley	Railway Station	Post-medieval	437090	343477
MDR5602	Ruined windmill, Windmill Farm, Ockbrook	Windmill	Post-medieval	442919	335735
MDR10929	Probable revetment or weir south of Barrow on Trent	Revetment; Weir	Medieval to Post-medieval	434930	327920
MDR11315	Trough, junction of Church Lane and Lime Lane, Morley	Horse Trough	Post-medieval	439621	340850
MDR6054	Gate Pillars, Park House Farm, Pilsley	Gate Pier	Post-medieval	441218	363641

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR11708	Milepost, Main Road, Smalley	Milepost	Post-medieval	440745	344273
MDR5124	Roman spindle whorl, Queen Street, Clay Cross	Findspot	Romano-British	439230	363003
MDR12133	Victorian post box, Stainsby	Wall Box	Post-medieval	445024	365487
MDR5490	Romano-British pottery, south west of Piggin Wood, Ockbrook	Findspot	Romano-British	442648	337019
MDR5489	Romano-British sherd, north west of Poplar Farm, Ockbrook	Findspot	Romano-British	442511	336942
MDR5491	Romano-British sherd, 200m south east of Fields Farm, Ockbrook	Findspot	Romano-British	442865	336742
MDR5488	Romano-British quern and pottery, 300m north east of Moor Lane Farm, Ockbrook	Findspot	Romano-British	442147	337331
MDR5503	Romano-British pottery, 200m south-east of Hopwell Nook, Hopwell	Findspot	Romano-British	443444	335817
MDR12830	Milepost, Cuttle Bridge, Swarkestone	Milepost	Post-medieval	437565	328995
MDR11125	Boundary post, Main Road, Stretton	Boundary Post	Post-medieval	439269	361155
MDR5941	Carved stones, All Saints Church, Heath	Grave Slab; Carved Stone	Medieval	444818	367073

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR14196	Arrowhead, north of Bartlewood Lodge, Ockbrook	Findspot	Prehistoric	442180	338130
MDR15035	Bruised blade fragment, Bartlewood Lodge, Ockbrook	Findspot	Prehistoric to Iron Age	442426	337905
MDR15044	Roman brooch or clasp (part of), Temple Normanton	Findspot	Romano-British	442355	367452
MDR14944	Carved stone head, 10 Mill Lane, Clay Cross	Findspot	Iron Age to Romano-British	439012	362811
MDR15816	Carved stone head, 96 Main Street, Smalley	Findspot	Iron Age to Post-medieval	440712	344278
MDR22836	Possible Iron Age Rectangular Enclosures, West of Derby Road, Aston upon Trent	Rectangular Enclosure; Pit	Undated	440937	330964
MDR22837	Possible Roman Ditch and Features, West of Derby Road, Aston upon Trent	Ditch; Pit; Post Hole	Iron Age to Romano-British	440962	330965
MDR22838	Worked Flint, West of Derby Road, Aston upon Trent	Findspot	Bronze Age	440935	330964
MDR15195	Site of K6 Telephone Box, Main Road, Heath and Holmewood	Telephone Box	Modern	444723	366718
MDR15191	Wayside Cottage, Main Road, Heath and Holmewood	House; Shop; Butchers Shop	Post-medieval to Modern	444683	366661
MDR15220	Elm Tree Inn, Mansfield Road, Heath and Holmewood	Public House	Post-medieval	444661	367105

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15193	Former Post Office, Main Road, Heath and Holmewood	Post Office; House	Modern	444705	366712
MDR15183	Corner House, Mill Lane, Heath and Holmewood	House	Post-medieval to Modern	444647	366516
MDR22867	Probable Ridge and Furrow, off Little Morton Road, North Wingfield	Ridge And Furrow?	Undated	441203	364537
MDR22875	Circular Feature, East of Swarkestone Hall, Swarkestone	Feature; Palaeochanne I?	Undated	437930	328189
MDR23009	Rectilinear Features, Junction of Church Street and Horsley Road, Horsley	Structure?; Hollow Way?	Undated	437745	344639
MDR23056	Road Surface at The Anchor Inn, B6013, South Wingfield	Road	Romano-British	438911	355251
MDR23057	The Anchor Inn, B6013, South Wingfield	Public House	Post-medieval	438952	355146
MDR23087	Linear Ditch and Pit, off Stenson Road, East of The Lock House, Twyford and Stenson	Pit; Ditch	Undated	432658	330008
MDR5133	Tollgate Cottage, Ashover Road, Stretton	Toll House; House	Post-medieval	438480	361415
MDR23119	Bloomery Slag and Post Medieval Pottery, off Mill Lane, Heath and Holmewood	Findspot	Post-medieval	444634	365938

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR23149	Medieval and Post Medieval Finds, off Rock Lane, Sutton cum Duckmanton	Findspot	Medieval to Post-medieval	443589	368667
MDR23144	Weir in Palaeochannel, Reservoir, Barrow upon Trent	Fish Weir	Medieval	434701	327871
MDR4301	Stenson Gravel Pit: Middle Bronze Age Urn	Urn	Undated	432500	329500
MDR4355	Cropmark 350m East of Potlocks House Farm: Ring Ditches	Ring Ditch	Prehistoric	431850	328750
MDR4356	Cropmark 350m East of Potlocks House Farm: Settlement	Settlement	Prehistoric	431850	328750
MDR23228	Upper Palaeolithic flint	Flint Scatter	Prehistoric - Palaeolithic	431716	329056
MDR23629	Southwood, off Alfreton Road, Holbrook	House	Post-medieval	436996	343123
MDR14185	Bumpmill Lane and Amber River Bridge, Shirland and Higham	Railway Bridge	Post-medieval	438611	358168
MDR24010	Site of Farm Buildings and Buildings Associated With Ironworkds, Off Clay Lane, Clay Cross	House; Outbuilding; Building	Post-medieval	438999	363043
MDR11354	Site of Moor Farm Cottage North, Off London Road, Shardlow and Great Wilne	House; Outbuilding	Post-medieval	442692	330993

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR11353	Site of Moor Farm Cottage South, London Road, Shardlow and Great Wilne	House; Barn	Post-medieval	442771	330822
MDR24062	Site of Nos. 76-79 Derby Road, Swanwick	Terrace	Post-medieval	440364	353489
MDR4887	Peacock Cottage, A615, South Wingfield	Chapel; Manor House; Inn	Post-medieval	438913	355910
MDR5605	Aston Cursus Complex, Shardlow	Ring Ditch; Field Boundary; Curvilinear Enclosure; Circular Enclosure; Rectilinear Enclosure; Cursus; Ridge And Furrow; Field Boundary	Prehistoric	442977	330281
MDR5609	Cropmarks north of Shardlow	Pit Alignment; Rectangular Enclosure; Curvilinear Enclosure; Field Boundary; Ridge And Furrow	Prehistoric to Medieval	443367	330794
MDR5474	Stanley Footrill Colliery (site of), Derby Road, Stanley	Colliery; Workshop	Post-medieval	441047	339662
MDR7330	Ridge and Furrow, Boundary System and Fire Pit, Chellaston Hill, Swarkestone	Fire Pit; Field Boundary; Ridge And Furrow	Medieval	438608	329767

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4344	Cropmarks, west of Frizams Lane, Willington	Polygonal Enclosure; Ridge And Furrow	Prehistoric to Medieval	431660	329032
MDR5616	Elvaston: Earthworks, ridge and furrow, north east of Ambaston Grange	Ridge And Furrow	Medieval	443860	332244
MDR5618	Ridge and furrow (site of), north east of Ambaston Grange, Elvaston	Ridge And Furrow	Medieval	443296	331977
MDR5620	Ridge and furrow (site of), south east of Ambaston, Elvaston	Ridge And Furrow	Medieval	443230	332297
MDR5573	Cropmark site, Draycott	Ring Ditch; Curvilinear Enclosure; Rectilinear Enclosure	Prehistoric to Medieval	443762	333076
MDR5621	Ridge and furrow, east of Ambaston, Elvaston	Ridge And Furrow	Medieval	443306	332794
MDR5622	Ridge and furrow, north east of Ambaston, Elvaston	Ridge And Furrow	Medieval	442953	332858
MDR5610	Cropmarks north of Shardlow	Ridge And Furrow; Pit Alignment; Linear Feature; Ditch; Enclosure	Prehistoric to Medieval	443709	331167
MDR5607	Cropmarks, Ambaston Lane, Shardlow	Ditch	Prehistoric	443213	331267
MDR5608	Cropmarks and earthworks (site	Rectilinear Enclosure;	Prehistoric	443077	330496

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	of), Glenn Way, Shardlow	Ridge And Furrow; Round Barrow			
MDR7333	Ridge and furrow field system north of Rose Cottage, Swarkestone	Ridge And Furrow	Post-medieval	437661	329021
MDR4393	Cropmark Complex, Barrow Lane, Swarkestone	Rectangular Enclosure; Oval Enclosure; D Shaped Enclosure; Pit Alignment; Linear Feature; Pit; Site	Prehistoric	436232	328700
MDR4402	Cropmarks, south of Barrow upon Trent	Ridge And Furrow; Ring Ditch?	Medieval to Post-medieval	435154	327768
MDR7329	Ridge and furrow field system, at Weston Fields Farm, Weston upon Trent	Field System; Ridge And Furrow	Post-medieval	439463	329257
MDR4328	Linear cropmarks south-east of Stenson	Linear Feature; Trackway; Drove Road?	Undated	432912	329430
MDR4320	Cropmarks, west of The Grange, Barrow upon Trent	Ring Ditch; Linear Feature; Enclosure; Pit Alignment	Prehistoric	434565	328852
MDR4299	Double ring ditch, pit alignment and enclosures 400m south-west of The Grange	Pit Alignment; Pit Alignment; Ring Ditch; Enclosure	Prehistoric	434465	328393
MDR4319	Iron Age settlement site, pit alignment and	Enclosure; Trackway; Pit Alignment	Prehistoric - Iron Age	434479	327907

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	droveway, west of Green Lane, Barrow Upon Trent				
MDR4352	Cropmarks, south-west of Barrow upon Trent	Ridge And Furrow	Medieval	434321	327694
MDR4321	Cropmarks, East of Merry Bower Farm, Barrow upon Trent	Ring Ditch?; Pit Alignment; Linear Feature	Prehistoric to Medieval	433858	329214
MDR4363	Cropmarks, north-east of Old Hall Farm, Barrow upon Trent	Ditch; Ring Ditch; Field Boundary; Linear Feature	Prehistoric	433305	329069
MDR4329	Cropmarks south of Willington Road, Willington Junction	Ring Ditch; Linear Feature; Enclosure	Prehistoric	430693	329598
MDR4351	Cropmark, north of Willington Road, Findern	Linear Feature	Prehistoric	430529	329684
MDR4310	Cropmark Complex East of Frizam's Lane, Twyford and Stenson	Ring Ditch; Enclosure; Settlement; Cursus; Hut Circle; Field Boundary; Ridge And Furrow	Prehistoric	431648	328823
MDR4314	Cropmark 200m South of The Green Farm, Twyford	Ring Ditch	Prehistoric	432851	328594
MDR7698	Double-ditched enclosure & pit alignment, Willington	Pit Alignment; Ditched Enclosure	Prehistoric	430196	328254
MDR4588	Alleged fishpond, Common Piece Lane, Findern	Fishpond	Medieval	431189	330417

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4311	Pit alignments, northeast of Power Station	Pit Alignment	Prehistoric	431154	329250
MDR8055	Ridge and furrow, Aston Hall, Aston-on-Trent	Ridge And Furrow; Boundary	Medieval	441277	329234
MDR8064	Ring ditch, pit alignments and ditches, south-west of Barrow-upon-Trent	Ring Ditch; Pit; Gully; Cinerary Urn; Post Hole; Ditch; Pit; Gully	Prehistoric	434382	328148
MDR8066	Ridge and furrow, south-east of Borrowash Bridge, Elvaston	Ridge And Furrow	Medieval	441793	333747
MDR8093	Bipartite rectilinear enclosure, Arleston House Farm, Barrow-on-Trent	Deserted Settlement?; Boundary Bank; Boundary Ditch; Rectilinear Enclosure	Medieval	433748	329716
MDR4331	Cropmark complex and ridge and furrow, 400m west-north-west of Arleston House Farm	Ridge And Furrow; Drove Road?	Medieval	433313	329942
MDR4296	Deserted medieval village site, Arleston, Barrow upon Trent	Deserted Settlement; Ridge And Furrow; Hollow Way; Boundary Ditch; Ditch	Medieval	433521	329754
MDR4321	Cropmarks, East of Merry Bower Farm, Barrow upon Trent	Ring Ditch?; Pit Alignment; Linear Feature	Prehistoric	434264	329247

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4606	Ridge and furrow, south-west of Stenson Hill Farm, Twyford and Stenson	Ridge And Furrow	Medieval	432169	330658
MDR7334	Ridge and furrow, north side of the Trent, Swarkestone	Ridge And Furrow	Medieval	438051	327843
MDR4399	Chellaston Junction, Cropmarks of Parallel Ditches, ridge and furrow, enclosure feature.	Ridge And Furrow; Enclosure; Ditch	Medieval	439207	327823
MDR8114	Ridge and furrow to the south-west of Swarkestone Lowes.	Ridge And Furrow	Medieval	436392	329162
MDR8114	Ridge and furrow to the south-west of Swarkestone Lowes.	Ridge And Furrow	Medieval	436605	329044
MDR4371	Iron Age/Romano-British settlement, west of Lowes Lane, Barrow upon Trent	Round House (Domestic); Enclosure; Settlement; Ditch; Ridge And Furrow; Lynchet	Prehistoric to Roman	436137	329514
MDR8115	Ridge and furrow, Barrow upon Trent	Ridge And Furrow	Medieval	436299	329386
MDR7359	Earthwork features, Swarkestone Stop, Swarkestone	Ridge And Furrow; Linear Feature; Enclosure	Medieval	436984	329274
MDR5571	Cropmarks, Foxcovert Farm, Aston upon Trent	Ring Ditch; Rectangular Enclosure; Enclosure	Medieval	441729	330552

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR8183	Brick Works, Rawson Green, Kilburn	Brickworks; Railway; Coal Workings	Post-medieval	437793	346587
MDR4695	Corn mill (site of), Cinderhill, Kilburn	Mill; Corn Mill; Watermill; Ridge And Furrow	Post-medieval	437323	346534
MDR5625	Ridge and furrow, Elvaston Avenue, Elvaston	Ridge And Furrow	Medieval	441712	332757
MDR5624	Ridge and furrow, north west of Ambaston, Elvaston	Ridge And Furrow	Medieval	442253	332858
MDR5623	Ridge and furrow, north of Ambaston, Elvaston	Ridge And Furrow	Medieval	442720	333117
MDR8292	Ridge and furrow west of Ambaston, Elvaston	Ridge And Furrow	Medieval	442585	332548
MDR8308	Elvaston: Ridge and furrow, north side of Ambaston Lane	Ridge And Furrow	Medieval	442022	332343
MDR8308	Elvaston: Ridge and furrow, north side of Ambaston Lane	Ridge And Furrow	Medieval	441657	332371
MDR4974	Linear feature, Laburnum Farm, Pentrich	Linear Feature	Undated	439014	352960
MDR7328	Clay mine shafts, near Chellaston Hill, Aston upon Trent	Clay Mine	Post-medieval	439003	329774
MDR5566	Draycott Mills, Draycott	Lace Factory; Cotton Mill	Post-medieval	444217	333200
MDR5582	Former Conservative Club,	Political Club; Lace Factory?	Post-medieval to Modern	444071	333384

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Derby Road, Draycott				
MDR4324	Ring ditch, 650m East of Potlock's House Farm, Twyford	Ring Ditch	Prehistoric	431964	328620
MDR9034	Sough Farm, Stanley	Drainage Level	Post-medieval	441713	339728
MDR9091	Smalley Mill and mill pond (site of), Woodside, Smalley	Watermill; Corn Mill; Kiln; Mill Pond	Post-medieval	439824	343304
MDR5600	Washington Cottages, Borrowwash, Ockbrook	Workers Cottage	Post-medieval	442545	334147
MDR5601	Washington Mills (site of), Borrowwash, Ockbrook	Lace Factory; Chimney; Factory	Post-medieval	442613	334140
MDR9601	Bourne's Pottery Works, Derby Road, Denby	Pottery Works	Post-medieval	439340	347397
MDR4690	Denby Ironworks (remains of), Derby Road, Denby	Iron Works; Tower	Post-medieval	438338	346932
MDR5931	Deer Park and gardens (site of), Sutton Scarsdale Hall, Sutton Cum Duckmanton	Deer Park; Landscape Park; Ornamental Garden	Post-medieval	444306	369262
MDR5979	Cropmarks, east of Heath	Linear Feature; Ring Ditch	Prehistoric	445495	366240
MDR4694	Flour mill (site of), Kilburn	Watermill; Corn Mill; Flour Mill	Post-medieval	437314	345585

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR10108	Pentrich Colliery (site of), Asher Lane, Pentrich	Colliery	Post-medieval	439377	351804
MDR5613	Circular Earthworks, Bellington Hill, Elvaston	Ridge And Furrow; Earthwork	Medieval	442355	331524
MDR10242	Moated site (site of), near Denby Old Hall, Denby	Moat; Manor House	Medieval	439472	348112
MDR4605	Ridge and furrow, south of Stenson Hill Farm, Twyford and Stenson	Ridge And Furrow	Medieval	432507	330828
MDR10711	Crows Nest, Woodshop Lane, Swarkestone	Timber Framed House; Wheelwrights Workshop; Storehouse	Post-medieval	436802	328556
MDR10713	Ivy Cottage, Swarkestone	House; Estate Cottage	Post-medieval	437168	328757
MDR10717	Keepers Cottage, Horsley Lane, Coxbench	House; House; Inn?	Post-medieval	437639	343838
MDR10754	Old Plough Inn (site of), Weston Upon Trent	Inn	Post-medieval	440509	328231
MDR10761	Weston Fields Farm, Weston Upon Trent	Farmhouse; Farm Building	Post-medieval	439367	329483
MDR10764	5-7 The Green, Weston Upon Trent	Farm Labourers Cottage; Terrace?	Post-medieval	440473	328295
MDR10765	Manor Farm cowsheds, The Green, Weston Upon Trent	Farm Building	Post-medieval	440581	328284

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR10785	Cobster Cottage, Trentside, Swarkestone	House; Outbuilding	Post-medieval	437001	328567
MDR10785	Cobster Cottage, Trentside, Swarkestone	House; Outbuilding	Post-medieval	437013	328576
MDR10788	Hollies Farm, Swarkestone	Open Hall House; Timber Framed House; Farmhouse	Post-medieval	437090	328557
MDR10797	Cinderhills Lodge, 9 Belper Road, Kilburn	Farmhouse	Post-medieval	437443	346561
MDR10809	Poplars Farm, Twyford	Farmstead	Post-medieval	433626	328632
MDR10809	Poplars Farm, Twyford	Farmstead	Post-medieval	433591	328615
MDR10809	Poplars Farm, Twyford	Farmstead	Post-medieval	433625	328597
MDR10809	Poplars Farm, Twyford	Farmstead	Post-medieval	433605	328583
MDR10809	Poplars Farm, Twyford	Farmstead	Post-medieval	433607	328603
MDR10836	Eve Cottages, Church Lane, Barrow Upon Trent	House	Post-medieval	435526	328282
MDR10836	Eve Cottages, Church Lane, Barrow Upon Trent	House	Post-medieval	435548	328287
MDR10843	Manor House, 43-45 Church Lane, Barrow Upon Trent	Manor House	Post-medieval	435694	328332
MDR10844	Crowtrees, Church Lane, Barrow Upon Trent	Cruck House; Timber Framed House; Farmstead	Post-medieval	435838	328401

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR10845	Trentside Cottage, Church Lane, Barrow Upon Trent	Farm Labourers Cottage	Post-medieval	435817	328427
MDR10846	Millstone Cottage, Church Lane, Barrow Upon Trent	House; House	Post-medieval	435788	328378
MDR4424	Ridge and Furrow, west of Chellaston Hill, Derby	Ridge And Furrow	Medieval	437830	329622
MDR10848	Hollybush House, Church Lane, Barrow Upon Trent	Timber Framed House; Farmhouse	Post-medieval	435291	328534
MDR10850	The Elms, Church Lane, Barrow Upon Trent	Farmhouse	Post-medieval	435516	328323
MDR10851	7 The Nook, Barrow Upon Trent	House; Stable; Nonconformist Meeting House; Scout Hut	Post-medieval	435391	328555
MDR10861	Twyford Hall, Twyford	Farmhouse; Farm Building	Post-medieval	432764	328374
MDR10880	Arleston Farm, Barrow Upon Trent	House; Stable; Farmhouse	Post-medieval	434041	329902
MDR4349	The Old Water Works, east side of Meadow Lane, Repton	Waterworks	Post-medieval	432488	327853
MDR10731	Lower Farm, Twyford and Stenson	Outbuilding; Barn; Farmhouse	Post-medieval	432408	329905
MDR10927	Pinfold, Church Lane, Barrow on Trent	Pound	Post-medieval	435280	328431
MDR10957	South Wingfield Corn Mill, Church	Watermill?; Corn Mill; Watermill	Post-medieval	438031	355531

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Lane, South Wingfield				
MDR11124	Bump Mill (site of), Bump Mill Lane, Shirland, Shirland and Higham	Bump Mill	Post-medieval	438678	358233
MDR11123	Stretton Station House, Smithymoor Bridge	Station Masters House	Post-medieval	438732	361523
MDR11128	Bonds Main Colliery Settlement, Temple Normanton	Workers Village	Post-medieval	441883	367737
MDR11158	Colliery (site of), Brickyard Lane, Kilburn	Colliery	Post-medieval	437668	346759
MDR6051	Toll Bar Cottage, Hardstoft	Toll House	Post-medieval	443477	363608
MDR5926	Medieval chapel (site of), Hawking Lane, Stainsby	Chapel	Medieval	444738	365512
MDR6081	Defended manorial complex (site of), Stainsby	Bank (Earthwork); Ditch; Fishpond; Hollow Way	Medieval	444901	365633
MDR5934	Victorian school, Stainsby	School	Post-medieval	444936	365655
MDR11166	Icehouse (site of), Ogston Hall, Brackenfield	Icehouse	Post-medieval	437871	359793
MDR5936	Possible road, Ault Hucknall	Road?	Post-medieval	444228	364985
MDR10129	Toll Bar Cottage, Stainsby Common, Ault Hucknall	Toll House	Post-medieval	443339	364978
MDR7324	Quarry by Chellaston East	Quarry	Post-medieval	438918	328066

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Junction, Weston-on-Trent				
MDR11194	Chellaston Cottages, Weston-on-Trent	Terrace; Workers Cottage	Post-medieval	438793	328264
MDR11122	Amber Mill or Shirland Mill, Toadhole Furnace, Shirland and Higham	Corn Mill; Mill Pond; Watermill	Post-medieval	438665	357075
MDR11312	Marehay Colliery (site of), Ripley	Colliery; Ironstone Mine	Post-medieval	438714	350377
MDR9649	Hartshay Colliery (site of), Ripley	Colliery	Post-medieval	438803	350774
MDR4816	Fishponds, Church Lane, Morley	Marl Pit; Fishpond	Medieval	439844	340774
MDR11316	Churchyard, St Matthew's Church, Morley	Building; Churchyard	Post-medieval	439656	340944
MDR4813	Former clay pits, Brick Kiln Lane, Morley	Brick Kiln; Clay Pit	Post-medieval	438869	341757
MDR4813	Former clay pits, Brick Kiln Lane, Morley	Brick Kiln; Clay Pit	Post-medieval	438972	341648
MDR5960	Stainsby Park (site of), Ault Hucknall	Deer Park	Post-medieval	446245	365723
MDR4594	Cropmarks and artefact scatter, Stenson Farm, Twyford and Stenson	Ring Ditch; Barrow?; Artefact Scatter; Ridge And Furrow; Linear Feature	Prehistoric to Medieval	432240	330232
MDR6225	Earlier road surface, Calow Lane, Calow	Road	Undated	440560	370050

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR11582	Park Mill (site of), Alfreton Brook, Alfreton	Corn Mill; Watermill; Mill Pond	Medieval to Post-medieval	440047	356728
MDR10098	Windmill (site of), Park House, Pilsley	Windmill	Post-medieval	441149	363700
MDR9597	Oakerthorpe Colliery, South Wingfield	Tramway; Colliery	Post-medieval	439379	354937
MDR9596	Highfield Colliery (site of), South Wingfield	Colliery	Post-medieval	439665	354935
MDR7691	Cropmarks, Etwall Road, Willington	Linear Feature; Henge Enclosure; Ring Ditch?; Rectilinear Enclosure?	Prehistoric	429571	328858
MDR4333	Neolithic and Bronze Age features, Hill Farm, Willington	Ring Ditch; Linear Feature; Enclosure; Ridge And Furrow	Prehistoric	429982	329468
MDR7327	Swarkestone Windmill (site of), Chellaston	Windmill	Post-medieval	437994	329540
MDR4732	Morley Manor House (site of), Morley	Manor House	Medieval	439641	340946
MDR4819	House platforms, south side of Church Lane, Morley	Shrunken Village	Medieval	439557	340837
MDR4587	Alleged building foundations, Findern	Shrunken Village?; Manor House?	Medieval	431048	330444

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4589	Beaker sherds, Stenson Road, Stenson	Findspot	Prehistoric	433022	330145
MDR11016	Midland Railway, Doe Lea Branch (route of), Bolsover and Chesterfield	Mineral Railway	Post-medieval	446829	367640
MDR11715	Former horse training track, Swarkestone Lowes	Horse Exercise Track	Post-medieval	436706	329383
MDR11724	Midland Railway, Ripley branch (route of), Amber Valley and Erewash	Railway	Post-medieval	438363	346279
MDR4687	Morley Deer Park and possible coal mines, Ripley	Deer Park; Colliery	Medieval	437836	349130
MDR6045	Park Hall (site of?), Pilsley	Manor House	Medieval	440945	363143
MDR4796	Eatonpark Wood quarries, Little Eaton	Quarry	Post-medieval	436435	342957
MDR11815	Draycott Methodist Church, Market Street, Draycott	Primitive Methodist Chapel	Post-medieval	444247	333009
MDR11816	Wesleyan Methodist Chapel (site of), Main Street, Ambaston	Wesleyan Methodist Chapel	Post-medieval	442838	332703
MDR11823	Wesleyan Methodist Chapel (site of), Stenson Road, Stenson	Wesleyan Methodist Chapel	Post-medieval	432698	330077
MDR12076	Brickyard (site of), Chesterfield Road, Hardstoft	Brickyard	Post-medieval	443579	363440

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR12087	Ridge and furrow, between Fields Farm and Poplars Farm, Twyford	Ridge And Furrow; Plough Headland	Medieval	434251	328655
MDR12088	Post-medieval enclosure earthworks, Fields Farm, Twyford	Rectangular Enclosure; Settlement?	Post-medieval	434318	328734
MDR5747	Kidsley Park (site of), Smalley	Deer Park	Medieval	442057	346466
MDR5876	Alfreton Park, Alfreton	Deer Park; Ornamental Garden	Medieval	440375	355952
MDR4750	Eaton Park (site of), Little Eaton	Deer Park	Medieval	436289	342546
MDR6055	Morton Park	Park	Medieval	441048	361865
MDR12102	Ripley Spelter Works (site of), Bridle Lane, Ripley	Zinc Works; Slag Heap	Post-medieval	438106	351161
MDR4959	Harthsay Mill and mill pond (site of), Bridle Lane, Ripley	Forge; Watermill; Mill Pond; Colour Mill	Post-medieval	438059	351351
MDR4953	Weir Mill Park Lane Ambergate	Watermill; Corn Mill; Weir	Post-medieval	437939	353513
MDR11578	Iron foundry (site of), Calow	Foundry	Post-medieval	440544	369729
MDR5935	Possible shrunken medieval village, Sutton Scarsdale, Sutton Cum Duckmanton	Shrunken Village	Post-medieval	444121	368807
MDR12114	Sutton Scarsdale medieval deer park (possible site of), Sutton Scarsdale Hall, Sutton cum Duckmanton	Deer Park?	Medieval	443268	368588

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5765	Double bank & ditch, Haye Park Farm	Field Boundary	Medieval	440942	341501
MDR4304	Potlock House (site of), Willington	Moat?; Manor House; Farmhouse	Medieval	431326	328747
MDR7697	Trackway and pit alignment (site of), Sealey Close, Willington	Trackway; Pit Alignment; Ditch	Prehistoric	430399	328409
MDR4353	Cropmarks north of Buckford Lane, Findern	Pit Alignment; Pit; Field Boundary	Prehistoric	431372	329646
MDR12143	Cropmarks north of Twyford Road, Willington	Rectilinear Enclosure; Ditch; Boundary Ditch	Prehistoric	430175	328572
MDR12144	Iron Age ditch, Willington Power Station site, Willington	Ditch	Prehistoric	430219	328975
MDR12152	Possible early field system, Swarkestone Quarry, Barrow-upon-Trent	Field System?; Ditch	Prehistoric	434953	327794
MDR4971	Cropmarks southwest of Roman Fortlet, Oakerthorpe, Pentrich	Rectangular Enclosure; Ditch	Romano-British	438741	353913
MDR4972	Cropmarks east of Roman Fort, Castle Hill, near Oakerthorpe	Rectangular Enclosure	Romano-British	438706	354098
MDR4812	Morley Moor Quarries, Brackley Gate, Morley	Stone Working Site; Quarry	Post-medieval	438550	342616
MDR5475	Derby Road Quarry (disused),	Quarry	Post-medieval	441616	339831

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Derby Road, Stanley				
MDR5476	Colliery (site of), Dale Road, Stanley	Spoil Heap; Colliery	Post-medieval	442011	339917
MDR9633	South Wingfield Colliery (site of), Oakerthorpe	Colliery	Post-medieval	438828	355383
MDR11624	Tramway (route of), Oakerthorpe, South Wingfield	Tramway	Post-medieval	438976	355312
MDR12173	Oakerthorpe Colliery (site of), Oakerthorpe, South Wingfield	Colliery; Mine Shaft	Post-medieval	438709	355559
MDR12172	Tramway (route of), Oakerthorpe, South Wingfield	Tramway; Mineral Railway	Post-medieval	438854	355055
MDR12171	Former colliery (site of), Chestnut Farm, Oakerthorpe, South Wingfield	Colliery; Mine Shaft	Post-medieval	438837	354798
MDR8651	Lancashire, Derbyshire and East Coast Railway (route of), North East Derbyshire and Bolsover	Railway	Post-medieval	444811	370044
MDR7892	The Trent and Mersey Canal, South Derbyshire	Canal	Post-medieval	436566	328985
MDR12316	Possible moated site, Locko, Stanley	Moat?; Preceptory?; Leper Hospital?	Post-medieval	441152	339154
MDR12318	Well (site of), north-west of Locko Park, Dale Abbey	Well	Post-medieval	440868	339250

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5479	Locko Park, Dale Abbey	Deer Park; Garden; Kitchen Garden	Post-medieval	440861	338444
MDR12336	Ridge and furrow, Far Lane, Ockbrook	Ridge And Furrow	Medieval	443313	336570
MDR12336	Ridge and furrow, Far Lane, Ockbrook	Ridge And Furrow	Medieval	443075	336581
MDR5158	Earthen mound, Ford, Stretton	Mound; Bank (Earthwork)	Post-medieval	438030	360050
MDR5432	Weston Hall and site of homestead moat, Weston Upon Trent	Moat; Country House	Post-medieval	440361	328387
MDR7360	Cropmark features to the west of Weston-on-Trent	Barrow Cemetery?; Ring Ditch; Ridge And Furrow; Linear Feature	Prehistoric to Medieval	439964	328153
MDR12395	Medieval park (possible site of), Weston on Trent	Park	Medieval	440126	328312
MDR12396	Mount Pleasant (site of), Matlock Road, Wessington	House; Well	Post-medieval	438158	357016
MDR4960	Midland Railway, Ambergate & Pye Bridge branch	Railway	Post-medieval	440246	351846
MDR12289	Midland Counties Railway, Derby to Nottingham route, Derby and Erewash	Railway	Post-medieval	442447	334197
MDR5460	Earthworks (site of), Giant's Hill, Ockbrook	Bank (Earthwork); Mound; Defended	Post-medieval	443035	335956

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
		Enclosure?; Barrow?			
MDR12459	Outbuildings at Sutton Manor, Palterton Lane, Sutton Scarsdale, Sutton Cum Duckmanton	Barn; Outbuilding	Post-medieval	444524	368672
MDR4581	Stanley-Chaddesden Footrill Tramway, Derby	Tramway	Post-medieval	439002	338806
MDR5797	Colliery shafts (site of), east of Jesse Farm, Morley	Mine Shaft	Post-medieval	440662	340365
MDR10948	Great Central Railway, Chesterfield Loop, Chesterfield and North East Derbyshire	Railway	Post-medieval	440694	371224
MDR4817	Earthworks west of St Matthew's Church, Morley	Cultivation Terrace?; Building Platform?; Lynchet?	Post-medieval	439579	340970
MDR12517	Findern Primary School, Buckford Lane, Findern	Primary School	Modern	431233	329508
MDR12521	Horsley Woodhouse Primary School, Main Street, Horsley Woodhouse	Primary School	Modern	439609	344815
MDR12525	New Connexion Methodist Chapel (site of), Green Lane, Pilsley	Methodist New Connexion Chapel	Post-medieval	442016	363188

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR12526	Primitive Methodist Chapel (site of), Parkhouse Road, Pilsley	Primitive Methodist Chapel	Post-medieval	441508	363788
MDR12528	Mission Room (site of), Locko Road, Pilsley	Mission	Post-medieval	441702	363611
MDR12557	White Lodge (site of), south of Thulston, Elvaston	Toll House?; House	Post-medieval	441176	331548
MDR9602	W H and J Slater Ltd brick and tile works (site of), Park Hall, Denby	Brick And Tilemaking Site	Post-medieval to Modern	438105	347008
MDR9610	Denby Colliery (site of), northwest of Derby Road, Denby	Colliery	Post-medieval	438136	347168
MDR4771	Possible site of windmill, Smalley Mill Road, Horsley	Post Mill?	Post-medieval	438240	344037
MDR12663	Barrow Hall and associated outbuildings (site of), Hall Park, Barrow on Trent	House; Outbuilding; Country House	Post-medieval	435364	328419
MDR7487	Artefact scatter, west of Hay Grange, Ockbrook	Settlement?; Artefact Scatter	Romano-British	443003	337164
MDR5483	Artefact scatter, 250m east of Moor Lane Farm, Ockbrook	Artefact Scatter; Settlement?	Romano-British	442298	337053
MDR5507	Artefact scatter, 250m north-east of Spondon Wood Farm, Dale Abbey	Artefact Scatter	Romano-British	441767	337436
MDR5512	Artefact scatter, 100m south-east of Spondon Wood Farm, Dale Abbey	Artefact Scatter	Romano-British to Medieval	441673	337139

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5508	Roman pottery scatter, 150m east of Spondon Wood Farm, Dale Abbey	Artefact Scatter	Romano-British	441730	337275
MDR5513	Artefact scatter, 250m south of Spondon Wood Farm, Dale Abbey	Artefact Scatter	Romano-British to Medieval	441535	337024
MDR5484	Romano-British pottery scatter, Hopwell Nook, Hopwell and Ockbrook	Settlement?; Artefact Scatter	Romano-British	443218	335913
MDR10666	Ridge and furrow, Manor Farm, Hopwell	Ridge And Furrow	Medieval	443664	335239
MDR10666	Ridge and furrow, Manor Farm, Hopwell	Ridge And Furrow	Medieval	443536	335210
MDR10666	Ridge and furrow, Manor Farm, Hopwell	Ridge And Furrow	Medieval	443468	335185
MDR12679	Bardolf's Park, Dale Road, Ockbrook	Deer Park?	Medieval	442425	337543
MDR12681	Swanwick Baptist Chapel, Chapel Street, Swanwick	Particular Baptist Chapel	Post-medieval	440404	353511
MDR12682	Swanwick Baptist Chapel burial ground, Chapel Street, Swanwick	Baptist Burial Ground	Post-medieval	440400	353492
MDR12683	United Methodist Free Chapel, Derby Road, Swanwick	United Methodist Free Chapel	Post-medieval	440338	353444
MDR12684	Former Primitive Methodist Chapel, Pentrich Road, Swanwick	Primitive Methodist Chapel; Primitive	Post-medieval	440132	353219

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
		Methodist Chapel			
MDR12697	Baptist Chapel, Birches Lane, South Wingfield	Particular Baptist Chapel	Post-medieval	438369	356449
MDR4943	Non-conformist chapel (site of), Main Road, Pentrich	Nonconformist Chapel	Post-medieval	438890	352229
MDR4623	Midland Railway, Derby & Melbourne branch (mostly dismantled)	Railway	Post-medieval	437998	328964
MDR4674	Denby Old Hall (site of), Derby Road, Denby	Country House	Post-medieval	439430	348051
MDR12771	Wesleyan Methodist Chapel (site of), Ripley Road, Buckland Hollow	Wesleyan Methodist Chapel	Post-medieval	437617	351763
MDR12787	Medieval pit, Main Street, Weston on Trent	Rubbish Pit	Medieval	440515	328210
MDR12788	Former United Methodist Reform Chapel, Over Lane, Belper	United Methodist Free Chapel	Post-medieval	437201	348448
MDR4744	Horsley Park, Horsley	Deer Park	Medieval	438230	343427
MDR4781	Fishponds (site of), Parkgate Farm, Horsley	Fishpond	Medieval	437985	344041
MDR4767	Fishponds (site of), west of Horsley Grange, Horsley	Fishpond	Medieval	437429	344279
MDR4766	Horsley Grange, Horsley	Grange?	Medieval	437656	344280

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5939	Possible road, Heath	Road?	Undated	444633	366088
MDR12888	Non-conformist chapel (site of), Port Way, Coxbench	Congregational Chapel	Post-medieval	436954	343665
MDR12898	Chapel Cottage, Church Street, Horsley	Wesleyan Methodist Chapel	Post-medieval	437638	344470
MDR12899	St Susanna's Church, Church Lane, Horsley Woodhouse	Anglican Church	Post-medieval	439664	344810
MDR12900	Primitive Methodist Chapel (site of), Fairfield Road, Horsley Woodhouse	Primitive Methodist Chapel	Post-medieval	439528	344904
MDR12901	Methodist Church, Main Street, Horsley Woodhouse	Wesleyan Methodist Chapel; Wesleyan Methodist Chapel	Post-medieval	439351	344922
MDR12902	Former United Methodist Free Chapel, Fairfield Road, Horsley Woodhouse	United Methodist Free Chapel	Post-medieval	439274	344999
MDR5785	Baptist Church, Main Road, Smalley	General Baptist Chapel	Post-medieval	440709	344553
MDR12904	Baptist burial ground, Main Road, Smalley	Baptist Burial Ground	Post-medieval	440718	344560
MDR9103	Derby Canal, Sandiacre branch (route of), Erewash	Canal	Post-medieval	441652	334961
MDR13038	Denby Park or Old Hall Park, Denby	Deer Park?	Medieval	439513	348086

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4697	Salterwood Colliery (site of) and earlier coal and ironstone workings, Denby Park, Denby	Ironstone Mine; Bell Pit; Colliery	Post-medieval	438911	348111
MDR11836	Baptist Chapel (site of), Twyford Road, Willington	Baptist Chapel	Post-medieval	429662	328558
MDR5482	Romano-British aisled building, Little Hay Grange, Ockbrook	Building?; Hearth; Barn; Farmstead?	Romano-British	443803	337551
MDR5905	Ironworks (site of), Damstead Wood, Alfreton	Forge; Pond Bay	Post-medieval	440291	354876
MDR11690	Birmingham to Derby Junction Railway, South Derbyshire and Derby	Railway	Post-medieval	432538	330995
MDR11055	Great Central Railway, Derbyshire Main Line (route of), Derbyshire Dales, Bolsover and North East Derbyshire	Railway	Post-medieval	443653	369084
MDR11140	Pilsley Colliery and associated railway sidings (site of), Pilsley	Colliery; Railway Siding	Post-medieval to Modern	442566	363155
MDR11105	Midland Railway, Pilsley Extension (route of), North East Derbyshire	Mineral Railway	Post-medieval	441825	364843
MDR4963	Midland Railway, Ripley & Heanor Branch (disused)	Railway	Post-medieval	441653	348868

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR10109	Mineral railway (demolished) - Butterley Works to Hartshay Colliery	Mineral Railway	Post-medieval	439195	351380
MDR13039	Park Hall park, Park Hall, Denby	Deer Park?	Medieval	438587	347686
MDR9608	Railway station, Station Road, Denby	Railway Station; Signal Box; Station Masters House	Post-medieval	438619	347257
MDR13180	House and birthplace of John Flamsteed (site of), Flamstead Lane, Denby	House	Post-medieval	440051	346062
MDR5937	The Schoolhouse and probable site of Manor House, Stainsby	Cruck House; Manor House; Teachers House	Medieval	444932	365634
MDR13200	Pinfold (site of), The Green, Weston on Trent	Pound	Post-medieval	440532	328281
MDR12834	Former Wesleyan Methodist Chapel, High Bank, Denby	Wesleyan Methodist Chapel	Post-medieval	440564	346821
MDR8089	Cropmark features south-east of Coach Way, Willington	Boundary Ditch; Trackway; Round Barrow; Rectilinear Enclosure	Prehistoric	430335	328074
MDR10005	Great Northern Railway, Derbyshire & North Staffordshire Extension (route of), Erewash and South Derbyshire	Railway	Post-medieval	436655	337879

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR7774	Ridge and furrow, enclosure and pit alignment, Aston Hill, Aston-on-Trent	Pit Alignment; Rectilinear Enclosure; Ridge And Furrow	Prehistoric to Medieval	441110	330339
MDR12145	Former gypsum pits and later marl pits, Brickyard Plantation, Aston upon Trent	Gypsum Mine; Marl Pit	Post-medieval	441304	330374
MDR13294	Former gypsum pits in and adjacent to Toadhole Plantation, Aston on Trent	Gypsum Quarry; Gypsum Mine	Post-medieval	441186	330154
MDR13294	Former gypsum pits in and adjacent to Toadhole Plantation, Aston on Trent	Gypsum Quarry; Gypsum Mine	Post-medieval	441093	330040
MDR13294	Former gypsum pits in and adjacent to Toadhole Plantation, Aston on Trent	Gypsum Quarry; Gypsum Mine	Post-medieval	440967	329812
MDR13294	Former gypsum pits in and adjacent to Toadhole Plantation, Aston on Trent	Gypsum Quarry; Gypsum Mine	Post-medieval	440996	329922
MDR12415	Erewash Valley Line, Trent Junction to Tupton (for Chesterfield), North East Derbyshire, Bolsover, Amber	Railway	Post-medieval	444433	350627

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Valley and Erewash				
MDR13302	Lodge at Hopwell Hall, Derby Road, Hopwell	Gate Lodge	Post-medieval	444106	335265
MDR13304	Hopwell Hall (site of), Hopwell	Hall House?; Hall House; Cistern	Post-medieval	443988	336270
MDR13370	Methodist Chapel (Primitive) (site of), Amber Row, Wessington	Primitive Methodist Chapel	Post-medieval	438516	356665
MDR13376	Methodist Chapel (Free), Belper Road, Higham, Shirland and Higham	Methodist Chapel	Post-medieval	439038	358772
MDR13377	Methodist Chapel (New Connexion) (site of), A61, Stretton, Shirland and Higham	Methodist New Connexion Chapel; United Methodist Chapel	Post-medieval	439272	361129
MDR13383	Mortuary Chapels, Ashover New Road, Handley, Stretton	Mortuary Chapel; Nonconformist Chapel	Post-medieval	438131	361394
MDR13384	Methodist Chapel, Handley Lane, Handley, Stretton	Tithe Barn; Methodist New Connexion Chapel; United Methodist Chapel	Post-medieval	437472	361762
MDR4677	Morley Park Ironworks (site of), Ripley	Iron Works; Iron Furnace	Post-medieval	437932	349188
MDR13394	Methodist Chapel (Free United) (site	United Methodist	Post-medieval	439272	363131

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	of), Thanet Street, Clay Cross	Free Chapel; Methodist New Connexion Chapel			
MDR13396	Roman Catholic Chapel, Thanet Street, Clay Cross	Roman Catholic Church	Post-medieval	439445	363159
MDR13409	Methodist Chapel (Primitive) (site of), Calow Green, Calow	Primitive Methodist Chapel	Post-medieval	441513	369552
MDR13411	Methodist Chapel (Primitive), Nuttall Terrace, Doe Lea, Heath and Holmewood	Primitive Methodist Chapel	Post-medieval	445756	366434
MDR13412	Methodist Chapel (Wesleyan) (site of), Junction of Shire Ln and Mansfield Rd, Heath	Wesleyan Methodist Chapel	Post-medieval	443948	367192
MDR13563	Ambergate and Buckland Hollow Brick Works, Buckland Hollow, Ripley	Brickworks	Post-medieval	437410	351598
MDR8781	The Cromford Canal.	Canal	Post-medieval	438677	351987
MDR4964	Butterley Tunnel, Cromford Canal, Ripley	Canal Tunnel	Post-medieval	440734	351510
MDR13594	Sutton Scarsdale Quarry, Palterton Lane, Sutton Scarsdale, Sutton Cum Duckmanton	Sandstone Quarry	Post-medieval	444619	368646
MDR13596	Sutton Lane Quarry, Sutton Lane, Sutton	Sandstone Quarry	Post-medieval	443676	369272

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Scarsdale, Sutton Cum Duckmanton				
MDR13627	Farm Buildings at Locko Grange Farm, Derby Road, Dale Abbey	Farmstead	Post-medieval	441783	338929
MDR13628	East Lodge, Locko Road, Locko Park, Dale Abbey	Lodge	Post-medieval	441557	338337
MDR13629	North Lodge, Derby Road, Dale Abbey	Lodge	Post-medieval	440238	339359
MDR13630	Flourish Farm, Ladywood Road, Dale Abbey	Public House; Farmhouse	Post-medieval	442709	338825
MDR13631	Spondon Wood Farm, Dale Road, Dale Abbey	Farmstead	Post-medieval	441593	337246
MDR13646	Draycott Fields, Derby Road, Shacklecross	Farmstead	Post-medieval	442899	333985
MDR13649	Sycamore Cotteage, 42 Whittaker Lane, Little Eaton	Squatters Cottage	Post-medieval	436650	342871
MDR13665	Hayes Park Farm, Moses Lane, Morley	Farmstead	Post-medieval	440798	341286
MDR13670	Morley Hall, Heanor Road, Morley	Country House	Post-medieval	439472	341077
MDR8486	Kilbourne Colliery (remains of), Kilburn	Colliery; Railway; Workshop; Managers House; Weighbridge	Post-medieval	438323	346231
MDR13719	Netherlea, now Holbrook Centre for Autism, and	House; Grotto; Garden	Post-medieval	436538	344483

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	associated gardens, Portway, Holbrook				
MDR13734	Burnwood, Dale Road, Ockbrook	Farmstead	Post-medieval	442979	338044
MDR13783	Coxbench Quarry, Castle Wood, Coxbench	Sandstone Quarry	Post-medieval	437327	343357
MDR13785	Former Brickworks, Matlock Road, New Wessington	Brickworks	Post-medieval	437576	357675
MDR13789	Tannery, Paint and Colour Works (Site of), Coxbench Road, Coxbench	Tannery; Paint Factory	Post-medieval	437155	343557
MDR13824	Outlane Quarry, Out Lane, Common End, Holmewood	Sandstone Quarry	Post-medieval	443707	365040
MDR13826	Sheepwash Quarry, Shire Lane, Owlcotes	Sandstone Quarry	Post-medieval	444182	367785
MDR13918	The Shieling, Dukes Road, Lower Hartshay, Ripley	Wharfingers Cottage	Post-medieval	438744	351488
MDR7305	Ploughed out barrow, Swarkestone Lows, Lowes Lane, Swarkestone	Barrow	Prehistoric	436550	329450
MDR7312	Barrow at Swarkestone Lows, Lowes Lane, Swarkestone	Barrow	Prehistoric	436760	329430
MDR14092	School building at Richardson Endowed Primary	School	Post-medieval	440777	344580

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	School, Main Road, Smalley				
MDR14094	Ridge and furrow, west of Ambaston, Elvaston	Ridge And Furrow	Medieval	442649	332756
MDR14100	Bond's Main Colliery (site of), Postman's Lane, Temple Normanton	Colliery	Post-medieval	442062	367967
MDR9671	Kilburn railway station (site of), Rawson Green, Denby Bottles	Railway Station	Post-medieval	437736	346324
MDR14184	Artefact scatter, west of Burnwood Farm, Ockbrook	Artefact Scatter; Hearth?; Kiln?	Prehistoric to Post-medieval	442506	338141
MDR4880	Former fish ponds, South Wingfield	Fishpond	Medieval	438339	355373
MDR4888	Bakewell Hall (site of), South Wingfield	Manor House; Moat?	Medieval	438304	355285
MDR14189	Wingfield Park (site of), South Wingfield	Deer Park	Medieval	437208	353855
MDR14197	Hearth and quernstone, north of Bartlewood Lodge, Ockbrook	Hearth; Findspot	Prehistoric	442300	338049
MDR14200	Cooling towers, Willington Power Station, Willington	Cooling Tower	Modern	431075	328917
MDR14250	Hartshay medieval deer park, Ripley	Deer Park	Medieval	438367	350682
MDR14258	Lockhay medieval deer park, Dale Abbey	Deer Park	Medieval	441468	339098
MDR14261	Morley Park (site of), Morley	Park	Medieval	440221	341473

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR14263	Littlehay medieval park, Ockbrook	Park	Medieval	443185	337642
MDR14267	Stanley medieval parkland, Stanley	Park	Medieval	442521	340011
MDR14350	Former Smithy, Buckland Hollow, Ripley	Blacksmiths Workshop	Post-medieval	437488	351837
MDR14355	Heage Colliery (site of), Bond Lane, Heage	Colliery	Post-medieval	437338	350933
MDR14440	WWII searchlight battery (site of), south of Ambaston Lane, Elvaston	Searchlight Battery	Modern	442055	332133
MDR14446	Fish pond (site of), north of the B5010, Thulston	Fishpond	Medieval	441314	331541
MDR14450	Gravel pits (site of), east of Derby Road, Aston-on-Trent	Gravel Pit	Post-medieval	441638	330349
MDR14453	Mine shaft, Aston Hill, Aston-on-Trent	Shaft Mound; Mine Shaft	Post-medieval	440984	330193
MDR14454	Mineral extraction site, Aston Hill, Aston-on-Trent	Extractive Pit	Post-medieval	440771	330089
MDR14477	Late prehistoric/Roman trackway, south-east of Poplars Farm, Twyford and Stenson	Trackway	Prehistoric to Roman	433834	328295
MDR14478	Pit alignment, south-east of Poplars Farm, Twyford and Stenson	Pit Alignment	Prehistoric	433782	328414

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR14479	Pit alignment and ditch, Twyford and Stenson	Pit Alignment; Ditch	Prehistoric	433645	328221
MDR14480	Cropmarks south of Poplars Farm, Twyford and Stenson	Curvilinear Enclosure; Ditch	Prehistoric	433655	328149
MDR4332	Medieval field system, east of East Farm, Stenson	Rectilinear Enclosure; Field Boundary; Field System; Ridge And Furrow; Water Channel; Pond	Medieval	432338	329798
MDR14497	Round barrow (site of), Twyford Road, Willington	Round Barrow	Prehistoric	431536	328627
MDR14498	Late prehistoric or Roman field boundary, south-east of Potlocks House Farm, Willington	Field Boundary	Prehistoric to Roman	431497	328624
MDR14504	Late Prehistoric Pit Alignment, Northwest of Mercia Marina, Willington	Pit Alignment	Prehistoric	429854	329269
MDR8088	Ridge and furrow (site of), north of Twyford Road, Willington	Ridge And Furrow	Medieval	430101	328771
MDR14632	Ridge and furrow, south-west of Barrow upon Trent	Ridge And Furrow	Medieval	434095	327939
MDR4327	Cropmarks 200m NNE of Ivy Cottage, Twyford	Ridge And Furrow; Enclosure;	Medieval	432988	328779

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
		Linear Feature			
MDR8098	Ridge and furrow, north of Poplars Farm, Twyford and Stenson	Ridge And Furrow	Medieval	433513	328793
MDR14634	Ridge and furrow, west of Deep Dale Lane, Barrow Upon Trent	Ridge And Furrow	Medieval	434660	329581
MDR14634	Ridge and furrow, west of Deep Dale Lane, Barrow Upon Trent	Ridge And Furrow	Medieval	434085	329472
MDR8048	Ridge and Furrow, North of Aston on Trent	Ridge And Furrow	Medieval	440670	330937
MDR8049	Ridge and furrow, Aston upon Trent	Ridge And Furrow	Medieval	441496	330558
MDR8049	Ridge and furrow, Aston upon Trent	Ridge And Furrow	Medieval	441753	330494
MDR8049	Ridge and furrow, Aston upon Trent	Ridge And Furrow	Medieval	441732	330757
MDR14645	Ridge and furrow, west of the A6, Elvaston	Ridge And Furrow	Medieval	440132	331216
MDR14646	Ridge and furrow, west of Thulston, Elvaston	Ridge And Furrow	Medieval	440200	331753
MDR14650	Extensive Ridge and Furrow, Elvaston	Ridge And Furrow	Medieval	442083	332750
MDR8269	Ridge and furrow north of Thulston, Elvaston	Ridge And Furrow	Medieval	440864	332269
MDR14651	Ridge and furrow, south of Ambaston Lane, Elvaston	Ridge And Furrow	Medieval	441552	331773

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR14652	Post Medieval or Medieval Ridge and Furrow, Elvaston	Ridge And Furrow	Medieval	442051	331290
MDR5592	Ridge and furrow or linear cropmark feature, Ambaston Lane, Elvaston	Ridge And Furrow; Linear Feature	Medieval	443411	331660
MDR14653	Small Group of Medieval Ridge and Furrow, Elvaston	Ridge And Furrow	Medieval	443249	332306
MDR5617	Elvaston: Earthworks, ridge and furrow, East of Ambaston Grange	Ridge And Furrow	Medieval	443784	331960
MDR8072	Ridge and furrow to the south of the Roman road, Draycott & Church Wilne	Ridge And Furrow	Medieval	442785	333719
MDR8072	Ridge and furrow to the south of the Roman road, Draycott & Church Wilne	Ridge And Furrow	Medieval	442487	334058
MDR8072	Ridge and furrow to the south of the Roman road, Draycott & Church Wilne	Ridge And Furrow	Medieval	442334	333973
MDR5628	Ridge and furrow south west of Hall Farm, Draycott	Ridge And Furrow	Medieval	443722	333162
MDR5616	Elvaston: Earthworks, ridge and furrow, north east of Ambaston Grange	Ridge And Furrow	Medieval	444252	332347
MDR14726	Ridge and furrow (remains of),	Ridge And Furrow	Medieval	429854	328450

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Willington Primary School, Willington				
MDR8084	Ridge and furrow, field boundaries and rectilinear enclosure, north of Repton	Ridge And Furrow; Field Boundary; Rectilinear Enclosure	Medieval	430180	327644
MDR14875	?Wing dams (remains of), south of the River Trent, Foremark	Wing Dam; Revetment; Clay Pit	Medieval to Post-medieval	433301	327863
MDR14876	?Wing dams or bank revetments (remains of), south of the River Trent, Foremark	Wing Dam; Revetment; Clay Pit	Post-medieval	433520	328015
MDR15023	Romano British pottery sherds, Burnwood Farm, Ockbrook	Findspot	Romano-British	443399	338177
MDR15025	Near Thistley Field and Far Thistley Field, Locko Rookery, Dale Abbey	Field System	Post-medieval	441373	338755
MDR15027	'Well Croft' well (site of), Locko Park, Dale Abbey and Stanley	Holy Well	Post-medieval	441177	338941
MDR15028	Fishpond and moat (site of), Locko Park, Dale Abbey	Fishpond; Moat	Medieval to Post-medieval	441121	338894
MDR15031	Ornamental pond complex, Locko Park, Dale Abbey	Ornamental Pond	Medieval to Post-medieval	441120	338924
MDR15077	Hartshay House ornamental garden features, Morley Park, Heage	Gate; Fountain; Statue	Post-medieval	437892	350391

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15090	The Green Man (site of), Boothgate, Heage	Inn	Post-medieval	437242	349558
MDR15092	Morrell's Wood forge (site of), south of Heage	Forge	Post-medieval	437620	348096
MDR15104	Pond and platform earthworks, Home Farm, Pentrich	Building Platform; Pond; Drain	Medieval	438789	352418
MDR15103	Possible medieval fishponds, St Matthew's Church, Pentrich	Fishpond?	Medieval	438824	352558
MDR15105	Mill earthworks and gritstone pillars, Wood Lane, Pentrich	Watermill; Building; Field Boundary	Post-medieval	438481	352104
MDR4951	Oakenthorpe Manor, Oakenthorpe	Manor House	Post-medieval	438923	354842
MDR15120	Wooden signpost, Ault Hucknall	Sign	Post-medieval	443772	365037
MDR4691	Horse trough (site of), Derby Road, Horsley	Horse Trough	Post-medieval	437411	345561
MDR5951	Lowne, Lune, Lund or Lunt depopulated medieval village (site of), Heath	Deserted Settlement	Post-medieval	445186	367138
MDR15185	Brown Close House, Main Road, Heath	House	Post-medieval	444689	366582
MDR15186	The Croft, Main Road, Heath	House	Post-medieval	444662	366639
MDR15187	The Cottage, Main Road, Heath	House	Post-medieval	444700	366634
MDR15188	Holly Barn, Main Road, Heath	Barn	Post-medieval	444707	366663

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15202	Dragon Cottage, Main Road, Heath	Public House; House	Post-medieval	444743	366785
MDR15209	Furness House, Main Road, Heath	School; House	Post-medieval	444746	366850
MDR15210	Beech Cottage, Main Road, Heath	House	Post-medieval	444747	366873
MDR15216	The Hollies, Main Road, Heath	House	Post-medieval	444711	367026
MDR15218	Chestnut Cottage, Mansfield Road, Heath	House	Post-medieval	444728	367074
MDR15226	Bleak House, Mansfield Road, Heath	House	Post-medieval	444527	367143
MDR15227	Smithy House, Mansfield Road, Heath	House	Post-medieval	444301	367152
MDR10003	Derby Canal, Swarkestone branch (route of), Derby and South Derbyshire	Canal	Post-medieval	437015	332862
MDR13322	Pillbox, east of Stenson Junction, Twyford and Stenson	Pillbox	Modern	431883	329902
MDR8070	Ridge and furrow, east of Weston-on-Trent	Ridge And Furrow	Medieval	441160	328192
MDR6929	Aston Cursus Complex, Aston Moor	Linear Feature; Enclosure; Ring Ditch; Cursus	Prehistoric	442174	329829
MDR14449	Field system, south of Glebe House, Aston-on-Trent	Field System; Field Boundary	Prehistoric to Roman	442222	330556

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15801	Ridge and furrow, Broad Oaks Farm, Pentrich	Ridge And Furrow	Medieval	439637	353324
MDR15802	Brick kiln (approximate site of), Broad Oaks Farm, Pentrich	Brick Kiln	Post-medieval	439650	353350
MDR15804	Coal pit and workings (site of), west of Park Hall, Denby	Colliery	Post-medieval	437655	347788
MDR15819	Bowler's Cottage and adjoining cottage, Main Road, Pentrich	Cottage Home	Post-medieval	438993	352435
MDR8085	Ridge and furrow east of Etwall Road, Willington	Ridge And Furrow	Medieval	429524	329227
MDR2584	Cropmarks east of Dale Farm, Willington	Pit Alignment; Linear Feature; Field Boundary; Field Boundary; Rectilinear Enclosure; Ridge And Furrow; Enclosure	Prehistoric to Roman	429865	329038
MDR15821	Narrow ridge and furrow and prehistoric cropmarks, north of Dale Farm, Willington	Field Boundary; Narrow Ridge And Furrow	Prehistoric to Post-medieval	429669	329095
MDR4303	Prehistoric landscape, Frizams Lane, Twyford and Stenson	Cursus; Curvilinear Enclosure; Circular Enclosure; Field Boundary;	Prehistoric to Roman	432205	329050

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
		Boundary Ditch; Rectilinear Enclosure; Ring Ditch; Ridge And Furrow			
MDR14630	Ridge and furrow, south of Stenson Farm West, Twyford	Ridge And Furrow	Medieval	431941	329268
MDR4330	Pit alignment, north of Stenson West Farm, Twyford & Stenson	Linear Feature; Pit Alignment; Field Boundary?	Prehistoric	431916	329879
MDR14486	Cropmarks, north-west of Stenson Farm West, Twyford and Stenson	Ditch	Prehistoric?	431780	329947
MDR8090	Ridge and furrow, south of Stenson West Farm	Ridge And Furrow; Field Boundary	Medieval	432185	329533
MDR14629	Ridge and furrow, east of Stenson	Ridge And Furrow	Medieval	432879	329896
MDR4367	Cropmarks, Potlock's House Farm, Willington	Ditch; Cursus; Curvilinear Enclosure; Boundary Ditch; Field Boundary; Circular Enclosure; Ridge And Furrow	Prehistoric to Medieval	431330	328842
MDR4313	Cropmarks, north of Old Hall Farm, Twyford and Stenson	Boundary Ditch; Enclosure; Field Boundary; Pit Alignment	Prehistoric to Roman	432923	329241

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR14481	Cropmarks, south of Stenson	Boundary Ditch; Circular Enclosure; Enclosure; Circular Enclosure	Prehistoric to Roman	432563	329338
MDR8087	Ridge and furrow, south of Sealey Close, Willington	Ridge And Furrow	Medieval	430407	328192
MDR4312	Circular cropmarks south of Sealey Close, Willington	Henge Enclosure?; Trackway; Ring Ditch	Prehistoric	430475	328261
MDR4326	Cropmarks south-east of Stenson Farm, Stenson	Enclosure; Ring Ditch; Pit Alignment; Linear Feature; Boundary Ditch	Prehistoric	432330	329550
MDR4345	Former osier bed, west of Meadows Lane, Repton	Osier Bed	Post-medieval	432143	327478
MDR14622	Ridge and furrow, north-east of Repton	Ridge And Furrow	Medieval	431074	327693
MDR14622	Ridge and furrow, north-east of Repton	Ridge And Furrow	Medieval	430845	327966
MDR16478	Ridge and furrow, north of Askew Hill, Repton	Ridge And Furrow	Medieval	431171	327401
MDR14625	Ridge and furrow, south of the River Trent, Repton	Ridge And Furrow	Medieval	431419	328318
MDR14625	Ridge and furrow, south of the River Trent, Repton	Ridge And Furrow	Medieval	432665	327810
MDR16479	Ridge and furrow, south-west of	Ridge And Furrow	Medieval	431395	327617

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Meadows Farm, Repton				
MDR14654	Ridge and furrow, Draycott and Church Wilne	Ridge And Furrow	Medieval	444817	332620
MDR4368	Cropmark features, south-west of Potlocks House Farm, Willington	Cursus?; Pit; Ditch; Trackway?; Ridge And Furrow; Field Boundary	Post-medieval to Modern	430951	328520
MDR14500	Earthworks, south-west of Potlocks House Farm, Willington	Boundary Ditch; Boundary Bank; Platform	Medieval to Post-medieval	431153	328394
MDR8091	Ridge and furrow, south of Twyford Road, Twyford	Ridge And Furrow	Medieval	432061	328668
MDR14482	Enclosure earthwork, Twyford and Stenson	Rectilinear Enclosure	Medieval to Post-medieval	432443	328736
MDR12087	Ridge and furrow, between Fields Farm and Poplars Farm, Twyford	Ridge And Furrow; Plough Headland	Medieval	433824	328653
MDR14631	Ridge and furrow, south of Poplars Farm, Twyford and Stenson	Ridge And Furrow	Medieval	433485	328248
MDR16498	Ridge and furrow, south of Twyford Road, Twyford and Stenson	Ridge And Furrow	Medieval	434101	328522
MDR16499	Ridge and furrow, south-west of The Grange, Barrow upon Trent	Ridge And Furrow	Medieval	434614	328588

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5615	Ridge and furrow, west of Ambaston Lane, Shardlow	Ridge And Furrow; Linear Feature	Medieval	443178	330895
MDR14643	Ridge and furrow, south of London Road, Shardlow	Ridge And Furrow	Medieval	443001	330488
MDR14439	WWII bombing decoy (site of), east of Ambaston	Bombing Decoy Site	Modern	443722	332224
MDR14445	Fish ponds and field boundaries, north of Oak Road, Thulston	Fishpond; Field Boundary	Medieval	441043	332114
MDR16502	Barrow (site of), west of Bird's Nest Farm, Aston-on-Trent	Barrow	Prehistoric	441684	330394
MDR14455	Rectangular enclosure, Aston Hill, Aston-on-Trent	Rectangular Enclosure	Post-medieval	440771	330173
MDR14637	Ridge and furrow, west of Aston-on-Trent	Ridge And Furrow	Medieval	440674	329418
MDR16503	Ridge and furrow and field boundaries, west of Weston-on-Trent	Ridge And Furrow; Field Boundary	Medieval	440201	328128
MDR14463	Site of Weston Camp (Camp 634), Northwest of St Mary's Church, Weston upon Trent	Prisoner Of War Camp	Modern	439552	327799
MDR14463	Site of Weston Camp (Camp 634), Northwest of St Mary's Church, Weston upon Trent	Prisoner Of War Camp	Modern	439622	328172

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR8092	Ridge and furrow east of Arleston House Farm, Barrow on Trent	Ridge And Furrow	Medieval	433981	329736
MDR14483	Round barrow (site of), Twyford and Stenson	Round Barrow; Ditch	Prehistoric	433008	328449
MDR14484	Pit alignment, east of Twyford	Pit Alignment	Prehistoric	433120	328423
MDR14488	Prehistoric cropmarks, west of Meadow Lane, Repton	Boundary Ditch; Circular Enclosure; Curvilinear Enclosure	Prehistoric	432027	328249
MDR7355	Aircraft obstructions, south-east of Green Lane, Barrow upon Trent	Aircraft Obstruction	Modern	435521	327314
MDR7355	Aircraft obstructions, south-east of Green Lane, Barrow upon Trent	Aircraft Obstruction	Modern	435913	327210
MDR7356	Aircraft obstructions, north-west of Stanton by Bridge, Ingleby	Aircraft Obstruction	Modern	435595	327780
MDR7356	Aircraft obstructions, north-west of Stanton by Bridge, Ingleby	Aircraft Obstruction	Modern	435785	327969
MDR7356	Aircraft obstructions, north-west of Stanton by Bridge, Ingleby	Aircraft Obstruction	Modern	435584	328049
MDR7357	Aircraft obstructions,	Aircraft Obstruction	Modern	436245	328015

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	north-west of Stanton by Bridge				
MDR14633	Ridge and furrow (site of), south-west of Barrow upon Trent	Ridge And Furrow	Medieval	434717	327775
MDR4318	Cropmarks, south-west of Poplars Farm, Twyford and Stenson	Ditch; Square Enclosure; Pit; Linear Feature	Prehistoric	433275	328240
MDR4364	Cropmarks and earthworks, southwest of Round Hill, Twyford	Boundary Ditch; Ditch; Ridge And Furrow; Enclosure	Prehistoric to Medieval	433008	328212
MDR16519	Ridge and furrow, south-east of Twyford	Ridge And Furrow	Medieval	432876	328333
MDR16520	Ridge and furrow south-west of Round Hill, Twyford and Stenson	Ridge And Furrow	Medieval	433223	328228
MDR4365	Cropmark west of Parsonage House, Barrow upon Trent	Ring Ditch; Round Barrow; Pit Alignment	Prehistoric	434282	328784
MDR4322	Cropmarks 300m north of Poplars Farm, Barrow upon Trent	Ring Ditch; Pit Alignment; Enclosure; Linear Feature	Prehistoric	433726	328933
MDR16521	Ridge and furrow, near Parsonage House, Twyford	Ridge And Furrow	Medieval	434163	328842
MDR4366	Cropmark 100m west of Merry Bower Farm, Twyford and Stenson	Rectilinear Enclosure; Pit Alignment; Ditch; Linear Feature	Prehistoric	433417	329354

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR7353	Ridge and furrow, Green Lane, Barrow-on-Trent	Field System; Ridge And Furrow	Medieval to Post-medieval	435193	327858
MDR15067	Home Farm and well, Ripley Road, Heage	Farmhouse; Well; Farmstead	Post-medieval	437724	350464
MDR15032	The Preceptory of the Knight's of St. Lazarus (site of), Locko Park, Dale Abbey	Preceptory	Medieval to Post-medieval	441195	338895
MDR14451	Rake earthworks, south of Brickyard Plantation, Aston-on-Trent	Rake	Post-medieval	441272	330200
MDR16572	Rake, Aston Hill, Aston-on-Trent	Rake	Post-medieval	440909	330105
MDR14328	Quarry, Alfreton Road, Holbrook	Sandstone Quarry	Post-medieval	436908	343124
MDR4904	Hallfieldgate House, Hallfield Gate, Shirland and Higham	House	Post-medieval	439392	358253
MDR14909	Watermill (potential site of), Stanton by Bridge	Mill Pond; Tail Race; Watermill; Leat	Medieval	436228	327393
MDR15184	Former stable block, Main Road, Heath	Stable	Post-medieval	444668	366563
MDR15182	End House, Main Road, Heath	House	Post-medieval	444615	366554
MDR15206	Lilac Cottage, Main Road, Heath	House	Post-medieval	444693	366619
MDR15189	Former stables and barn at Holly Tree Farm, Main Road, Heath	Stable; Barn	Post-medieval	444731	366654
MDR15190	Holly Tree Farm, Main Road, Heath	Farmhouse	Post-medieval	444731	366676

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15200	The Barn, Wilson Lane, Heath	Barn	Post-medieval	444742	366730
MDR15201	Wilson Lane Farm, Wilson Lane, Heath	Stable	Post-medieval	444753	366745
MDR15197	Laurel Cottage, Main Road, Heath	House	Post-medieval	444708	366762
MDR15199	Elm Tree Farm, Main Road, Heath	House	Post-medieval	444747	366766
MDR15203	Dragon House, Main Road, Heath	House	Post-medieval	444745	366792
MDR15204	The Old Reading Room, Main Road, Heath	Storehouse; House; Meeting Hall	Post-medieval	444723	366795
MDR15205	Ledum House, Main Road, Heath	House	Post-medieval	444712	366826
MDR15207	Glebe Cottage, Main Road, Heath	House	Post-medieval	444785	366833
MDR15208	Old School House, Main Road, Heath	Teachers House	Post-medieval	444744	366834
MDR15211	Lime Tree Farm, Main Road, Heath	House	Post-medieval	444756	366932
MDR15212	Church Farm House, Main Road, Heath	House	Post-medieval	444753	366998
MDR15217	Outbuilding north-west of The Hollies, Main Road, Heath	Outbuilding	Post-medieval	444697	367040
MDR15219	Ivy Cottage, Mansfield Road, Heath	House; Post Office	Post-medieval	444701	367057
MDR15221	Rose Cottage, Mansfield Road, Heath	House	Post-medieval	444415	367161
MDR15222	Ivy Farm, Mansfield Road, Heath	Farmhouse	Post-medieval	444406	367127

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR15223	Ivy Farm outbuildings, Mansfield Road, Heath	Hayloft; Stable; Barn	Post-medieval	444389	367122
MDR15224	Church Cottages, Church Lane, Heath	House	Post-medieval	444755	367051
MDR4400	Linear Pit Alignment and Other Features, East of Old Hall Farm, Swarkestone	Enclosure?; Pit Alignment; Feature	Prehistoric	438090	328377
MDR4392	Possible Pit Alignment, Linear Feature and Rectangular Enclosure, Chellaston Hill, Swarkestone	Rectangular Enclosure; Pit Alignment?; Linear Feature; Ring Ditch?	Prehistoric	438534	329531
MDR5799	Rectangular enclosures, northwest of Hayes Park Farm, Moses Lane, Morley	Rectangular Enclosure; Linear Feature	Prehistoric	440314	341479
MDR4812	Morley Moor Quarries, Brackley Gate, Morley	Stone Working Site; Quarry	Post-medieval	438770	342542
MDR5480	Rectangular enclosure and Roman pottery, 100m south of Ockbrook Wood, Dale Abbey	Rectangular Enclosure	Prehistoric to Roman	443596	338210
MDR13825	Wrang Plantation Quarry, Shire Lane, Sutton Scarsdale, Sutton Cum Duckmanton	Sandstone Quarry	Post-medieval	443996	368189

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR5523	Woodhall Park or Risley Park, Risley	Deer Park	Post-medieval	444255	337046
MDR6056	Wingfield Mill (site of), near Park House, Pilsley	Corn Mill; Dam; Mill Race; Blast Furnace; Water Wheel	Post-medieval	440918	363408
MDR14725	Ridge and furrow, north of Twyford Road, Willington	Ridge And Furrow	Medieval	429755	328608
MDR15091	Boothgate Hamlet, Heage	Hamlet	Post-medieval	437066	349229
MDR4354	Cursus, Potlock's House Farm	Cursus; Urn; Pit	Prehistoric	431647	328841
MDR23288	Romano-British Farmstead, Elvaston	Farmstead	Prehistoric	440133	331461
MDR23804	Elongated Mound, Possibly a Feature of Mining Activity, West of Asher Lane, Pentrich	Mound?	Post-medieval	439246	352196
MDR24014	Ridge and Furrow, Off Wragley Way, Stenson Fields	Ridge And Furrow	Medieval	434328	330160
MDR4785	Ryknield Street Roman Road, Horsley	Road	Romano-British	438978	343557
MDR4818	Ryknield Street within Morley parish	Road	Romano-British	438863	342130
MDR4778	Rykneld Street, Roman Road in Breadsall parish	Road	Romano-British	438065	340745
MDR4958	Ryknield Street Roman Road, throug Pentrich	Road	Romano-British	438632	352720
MDR4965	Ryknield Street Roman Road,	Road	Romano-British	438897	355374

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	South Wingfield Parish				
MDR11649	Chesterfield to Mansfield (via Hasland) Turnpike Road, North East Derbyshire, Chesterfield and Bolsover	Toll Road	Post-medieval	444479	367064
MDR4698	Ryknield Street Roman Road, through Denby	Road	Romano-British	438643	347234
MDR4962	Ryknield Street Roman Road, Ripley	Road	Romano-British	438455	349884
MDR12146	Route of tramway, Aston Hill	Tramway	Post-medieval	441174	330068
MDR12146	Route of tramway, Aston Hill	Tramway	Post-medieval	441322	330100
MDR12146	Route of tramway, Aston Hill	Tramway	Post-medieval	442115	330273
MDR4795	Packhorse route, Whittaker Lane, Little Eaton	Packhorse Road	Post-medieval	436382	342854
MDR11608	Derby to Sheffield (via Duffield) Turnpike Road, North East Derbyshire, Amber Valley, Erewash and Derby	Toll Road	Post-medieval	437416	358635
MDR5128	Stretton and Ashover Light Railway	Railway	Modern	437421	362028
MDR5165	Ryknield Street Roman road in Clay Cross parish	Road	Romano-British	439148	363491
MDR10207	Ryknield Street Roman Road	Road	Romano-British	438801	354333

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	(conjectural route of)				
MDR4900	Rykniel Street Roman road, through Shirland and Higham	Road	Romano-British	439117	359447
MDR7855	Roman Road (route of), Little Chester to Sawley, Erewash	Road	Romano-British	441952	334421
MDR4788	Rykniel Street Roman Road in Horsley Woodhouse parish, Horsley Lodge	Road	Romano-British	438821	345265
MDR12829	Moor Lane (route of), Stainsby, Ault Hucknall	Road	Post-medieval	444534	364971
MDR12829	Moor Lane (route of), Stainsby, Ault Hucknall	Road	Post-medieval	444775	364756
MDR9621	Hartshay Wharf to collieries Tramway, Pentrich	Tramway	Post-medieval	439314	352481
MDR9621	Hartshay Wharf to collieries Tramway, Pentrich	Tramway	Post-medieval	439194	352902
MDR4798	Little Eaton Tramway (Gangway or Gangroad), or, Derby Canal Tramroad (route of), Little Eaton	Tramway	Post-medieval	437222	344112
MDR4689	The Openwoodgate Branch Lines of the Little Eaton Gangway	Inclined Plane; Railway	Post-medieval	437412	347236

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
MDR4689	The Openwoodgate Branch Lines of the Little Eaton Gangway	Inclined Plane; Railway	Post-medieval	438194	346967
MDR4689	The Openwoodgate Branch Lines of the Little Eaton Gangway	Inclined Plane; Railway	Post-medieval	437772	347464
MDR13297	Slag wall, Morley Lane, Stanley	Wall	Post-medieval	441528	340505
MDR13388	Tramway (route of), Morley Ironworks to the Cromford Canal, Ripley	Tramway	Post-medieval	437906	350257
MDR11599	Ashbourne to Oakerthorpe Turnpike Road (route of), Derbyshire Dales and Amber Valley	Toll Road	Post-medieval	428129	352852
MDR14634	Ridge and furrow, west of Deep Dale Lane, Barrow Upon Trent	Ridge And Furrow	Medieval	434441	329101
MDR15030	Trackway heading north to Stanley, Locko Park, Dale Abbey	Trackway	Medieval	441041	339054
MDR5799	Rectangular enclosures, northwest of Hayes Park Farm, Moses Lane, Morley	Rectangular Enclosure; Linear Feature	Prehistoric	440751	341692
MDR5799	Rectangular enclosures, northwest of Hayes Park Farm,	Rectangular Enclosure; Linear Feature	Prehistoric	440750	341690

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Moses Lane, Morley				
MDR4812	Morley Moor Quarries, Brackley Gate, Morley	Stone Working Site; Quarry	Post-medieval	438730	342464
MDR5480	Rectangular enclosure and Roman pottery, 100m south of Ockbrook Wood, Dale Abbey	Rectangular Enclosure	Prehistoric to Roman	443515	338151
MDR13825	Wrang Plantation Quarry, Shire Lane, Sutton Scarsdale, Sutton Cum Duckmanton	Sandstone Quarry	Post-medieval	444047	368210
MDR6056	Wingfield Mill (site of), near Park House, Pilsley	Corn Mill; Dam; Mill Race; Blast Furnace; Water Wheel	Post-medieval	441000	363648
MDR14725	Ridge and furrow, north of Twyford Road, Willington	Ridge And Furrow	Medieval	429798	328543
Archaeological Events					
EDR1684	Analysis of organic deposits from trenching, at Elvaston, by ARCUS, in 1996		N/A	442348	333004
EDR1684	Analysis of organic deposits from trenching, at Elvaston, by ARCUS, in 1996		N/A	442638	332957
EDR1687	Archaeological field evaluation, Phase 3, of land at Elvaston, by ARCUS, in 1997		N/A	442807	333242
EDR4835	Heritage Impact Assessment at The Anchor Inn, B6013, South Wingfield, 2016		N/A	438946	355148
EDR2248	Building Survey of Thurleston Grange, Elvaston, in 2003 (DBR 265)		N/A	441390	331686

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2250	Building Survey of Ambaston Grange, Elvaston, in 2003 (DBR 267)		N/A	443375	331831
EDR1877	Watching brief, Denby Old Hall and moated site, by the Flamsteed Local History Group, in 1990		N/A	439430	348050
EDR1877	Watching brief, Denby Old Hall and moated site, by the Flamsteed Local History Group, in 1990		N/A	439460	348127
EDR2030	Building Survey of Keepers Cottage, Horsley Lane, Coxbench, in 1990 (DBR 71)		N/A	437633	343842
EDR4536	Desk-based Assessment of Denby Bottles Gravity Sewer Scheme, Denby (not shown on Figure 8.2)		N/A	437800	346200
EDR2176	Building Survey of Little London, Far Lane, Ockbrook, in 1995 (DBR 190)		N/A	443382	337228
EDR2432	Historic building survey, Church Farm, Ockbrook by TPA, in 2007		N/A	442391	335731
EDR2607	Watching brief, Piggin Wood, Ockbrook, by ARS Ltd, in 2006		N/A	442708	337065
EDR4780	Desk-based Assessment of Rear of No. 84 Weston Road, Aston upon Trent, 2017 (not shown on Figure 8.2)		N/A	441075	329471
EDR5079	The flintwork from fieldwalking in 1983 and a reassessment of the flint from barrow 2		N/A	436632	329483
EDR2440	Historic Building Report, Amber Mill & Amber Farm, Shirland and Higham, by RCHME, in 1992		N/A	438672	356915
EDR2440	Historic Building Report, Amber Mill & Amber Farm, Shirland and Higham, by RCHME, in 1992		N/A	438623	356988
EDR2003	Building Survey of Weston Hall, Weston Upon Trent, in 1989 (DBR 46)		N/A	440324	328347

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2088	Building Survey of Old Plough Inn, Weston On Trent, in 1992 (DBR 112)		N/A	440506	328235
EDR2098	Building Survey of Weston Fields Farm, Weston Upon Trent, in 1992 (DBR 120)		N/A	439349	329495
EDR2102	Building Survey of 6 The Green, Weston Upon Trent, in 1992 (DBR 125)		N/A	440471	328294
EDR2103	Building Survey of Manor Farm cowsheds, Weston On Trent, in 1992 (DBR 126)		N/A	440565	328277
EDR4547	Historic Building Assessment of St Wilfrid's Church, Church Lane, Barrow upon Trent		N/A	435293	328385
EDR4584	Desk-based Assessment of Weston Hall Farm, off Main Street, Weston upon Trent, 2018 (not shown on Figure 8.2)		N/A	440346	328344
EDR4899	Watching Brief at No. 11 Twyford Road, Barrow upon Trent, 2017		N/A	435226	328486
EDR5283	Historical Building Record/Survey, Wingfield Station		N/A	438507	355746
EDR2022	Building Survey of Crows Nest, Woodshop Lane, Swarkestone, in 1990 (DBR 63)		N/A	436797	328554
EDR2026	Building Survey of Ivy Cottage, Swarkestone, in 1990 (DBR 66)		N/A	437165	328762
EDR2124	Building Survey of Crewe and Harpur Arms, Swarkestone, in 1993 (DBR 147)		N/A	436861	328618
EDR2125	Building Survey of Cobster Cottage, Trentside, Swarkestone, in 1994 (DBR 148)		N/A	437006	328565
EDR2129	Building Survey of Hollies Farm, Swarkestone, in 1994 (DBR 151)		N/A	437088	328555
EDR2181	Building Survey of Eve Cottages, Church Lane, Barrow Upon Trent, in 1996 (DBR 195)		N/A	435526	328275

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2188	Building Survey of the Manor House, 43-45 Church Lane, Barrow Upon Trent, in 1996 (DBR 202)		N/A	435693	328336
EDR2189	Building Survey of Crowtrees, Church Lane, Barrow Upon Trent, in 1996 (DBR 203)		N/A	435826	328398
EDR2190	Building Survey of Trentside Cottage, Church Lane, Barrow Upon Trent, in 1996 (DBR 204)		N/A	435814	328433
EDR2191	Building Survey of Millstone Cottage, Church Lane, Barrow Upon Trent, in 1996 (DBR 205)		N/A	435782	328373
EDR2192	Building Survey of St Wilfred's, Church Lane, Barrow Upon Trent, in 1996 (DBR 206)		N/A	435224	328400
EDR2193	Building Survey of Hollybush House, Church Lane, Barrow Upon Trent, in 1996 (DBR 207)		N/A	435291	328540
EDR2195	Building Survey of The Elms, Church Lane, Barrow Upon Trent, in 1996 (DBR 209)		N/A	435513	328319
EDR2196	Building Survey of 7 The Nook, Barrow Upon Trent, in 1997 (DBR 211)		N/A	435391	328553
EDR4945	Historic Building Recording at Highfield Farm, Town Street, Holbrook, 2019		N/A	436511	344999
EDR5045	The Built-in Cupboards at Highfields Farm, Town Street, Holbrook, 2020		N/A	436501	345014
EDR2144	Building Survey of Cinderhills Lodge, 9 Belper Road, Kilburn, in 1994 (DBR 164)		N/A	437446	346558
EDR1678	Archaeological implication assessment, Swarkestone Gravel Pit, by TPAT, in 1992		N/A	434411	327957
EDR1676	Watching brief and excavation, Fernello Sitch, Barrow-upon-Trent, by TPAT in 1996		N/A	434293	328133

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR1932	Building Survey of Old Hall Cottage, Twyford, in 1987 (DBR 3)		N/A	432911	328928
EDR1934	Building survey of Old Hall Farm, Twyford, in 1987 (DBR 4)		N/A	432934	328919
EDR2057	Building Survey of Lower Farm, Twyford and Stenson, in 1991 (DBR 86)		N/A	432404	329898
EDR2063	Building Survey of Grange Farm, Twyford and Stenson, in 1991 (DBR 90)		N/A	432688	328515
EDR2072	Building Survey of Arleston House, Barrow On Trent, in 1991 (DBR 97)		N/A	433692	329639
EDR2130	Building Survey of Somerville, Main Street, Findern, in 1994 (DBR 152)		N/A	430768	330378
EDR2151	Building Survey of Poplars Farm, Twyford, in 1994 (DBR 170)		N/A	433590	328618
EDR2206	Building Survey of Twyford Hall, Twyford, in 1998 (DBR 223)		N/A	432762	328369
EDR2226	Building Survey of Arleston Farm, Barrow Upon Trent, in 1999 (DBR 243)		N/A	434018	329911
EDR2227	Building Survey of Arleston Farm, Barrow Upon Trent, in 2000 (DBR 243a)		N/A	434046	329876
EDR4898	Strip, Map and Record and Watching Brief off Stenson Road, East of The Lock House, Twyford and Stenson, 2015		N/A	432658	330008
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431477	328742
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431505	328866
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431539	328873
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431516	328752
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431379	328718

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431755	328922
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431759	329073
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431678	329062
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431170	328665
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431168	328786
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431639	328865
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431277	328751
EDR4931	Fieldwalking off Rock Lane, Sutton cum Duckmanton, 1995		N/A	443588	368667
EDR4932	Fieldwalking off Mill Lane, Heath and Holmewood		N/A	444636	365938
EDR1854	Geophysical survey, field containing circular earthworks, Bellington Hill, by DAS, in 2003		N/A	442355	331524
EDR3337	Archaeological watching brief, Church of All Saints, by ARS Ltd, 2014		N/A	442381	335703
EDR3649	Fieldwalking, Burnwood Farm, by Ockbrook and Borrowash Historical Society, between 1998 and 1999.		N/A	443400	338201
EDR3703	Fieldwalking, Spondonwood Farm, by Ockbrook and Borrowash Historical Society, in 1998		N/A	441771	337248
EDR3703	Fieldwalking, Spondonwood Farm, by Ockbrook and Borrowash Historical Society, in 1998		N/A	441213	337601
EDR3703	Fieldwalking, Spondonwood Farm, by Ockbrook and Borrowash Historical Society, in 1998		N/A	441920	338185

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR3084	Fieldwalking survey, at Boulton Moor, by University of Leicester Archaeological Services, in 2003		N/A	440152	331730
EDR1608	Archaeological Assessment, Aston Hill & Hicken's Bridge, by TPAT in 1995		N/A	440834	330310
EDR1609	Excavation, Foxcovert Farm, Aston on Trent, by BUFAU, in 1994		N/A	441720	330504
EDR1659	Archaeological evaluation, at Aston Hospital, by Mike Griffiths, in 1992		N/A	441241	329083
EDR1680	Initial Archaeological Survey, Elvaston Castle, TPAU 1992		N/A	440817	332871
EDR1686	Geophysical survey, land at Elvaston, by Geophysical Surveys of Bradford, in 1996		N/A	441911	333161
EDR2622	Conservation Plan, Elvaston Castle outbuildings and estate, by Hilary Taylor, in 2002		N/A	440634	332895
EDR3082	Archaeological desk-based assessment, at land adjacent to Elvaston Quarry, by ARCUS, in 2004 (not shown on Figure 8.2)		N/A	442084	332878
EDR4059	Building survey, Bowler's Cottage, by TPAU, in 1999		N/A	438994	352440
EDR4298	Strip, map and record by Pre-Construct Archaeology at Eachwell Lane, Alfreton in 2014		N/A	440161	355014
EDR4420	Archaeological Watching Brief, at Church of St Matthew, Pentrich, by ARS Ltd, in 2015		N/A	438929	352574
EDR4419	Archaeological Evaluation, at Denby Pottery Village, by ARS Ltd, in 2015		N/A	439159	347372
EDR4834	Evaluation at The Anchor Inn, B6013, South Wingfield, 2016		N/A	438923	355251
EDR5002	Coneygrey Farm, Pentrich: Electrical Resistivity Survey		N/A	438774	354068
EDR1721	Desktop assessment, fields adjoining the north side of Aston		N/A	442593	330228

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
		Lane, Shardlow, by Wessex, in 1992 (not shown on Figure 8.2)			
EDR2697	Archaeological evaluation, The Grove Hospital, Shardlow , by Foundations Archaeology, in 2006		N/A	442855	330473
EDR2697	Archaeological evaluation, The Grove Hospital, Shardlow , by Foundations Archaeology, in 2006		N/A	442894	330548
EDR3085	Archaeological desk-based assessment, at Boulton Moor, by CGMS, in 2000 (not shown on Figure 8.2)		N/A	439692	331587
EDR3085	Archaeological desk-based assessment, at Boulton Moor, by CGMS, in 2000 (N/A	440437	331716
EDR4510	Watching Brief and Excavation West of Derby Road, Aston on Trent, 2017		N/A	440978	330966
EDR4510	Watching Brief and Excavation West of Derby Road, Aston on Trent, 2017		N/A	440902	330930
EDR4510	Watching Brief and Excavation West of Derby Road, Aston on Trent, 2017		N/A	440863	330967
EDR4512	Geophysical Survey, West of Derby Road, Aston upon Trent, 2016		N/A	440954	330964
EDR4909	Monitoring at the Church of St Mary the Virgin, Church Street, Denby, 2006		N/A	439853	346499
EDR3069	Desk-based assessment, at Cinderhill, near Belper, by AC Arcaheology in 2003		N/A	438009	347373
EDR3327	Archaeological watching brief, Denby Plot on 10 Station Road, by ARS Ltd, in 2014		N/A	438658	347210
EDR2386	Excavation of a trench across Rykniel Street, Morley by F W Munslow in 1948		N/A	438971	342443

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR3000	Geophysical survey, Lodge House Extension, Heanor, Derbyshire, by ArchaeoPhysica Ltd, in 2011		N/A	442070	345133
EDR3107	Archaeological evaluation, Adale Road, Smalley, by Wessex Archaeology, in 2013		N/A	441942	345760
EDR3460	Archaeological assessment, Club Room Farm, by Trent & Peak, in 1993		N/A	441340	343088
EDR3482	Desk-based assessment, Carrington Farm, by Wardell Armstrong, in 1996		N/A	441030	345834
EDR3673	Watching brief, Horsley Lodge, by Derbyshire County Council, in 1996		N/A	439039	343824
EDR4752	Topographic and Geophysical Survey, Junction of Church Street and Horsley Road, Horsley, 2017		N/A	437745	344642
EDR4948	Geophysical Survey West of Sandy Lane, East of Horsley Castle, Horsley, 2019		N/A	437871	343341
EDR5144	An Historic Environment Desk-Based Assessment of Land West of Sandy Lane, Coxbench		N/A	437786	343528
EDR3516	Desk-based assessment, Footrill, by Wardell Armstrong, in 1997		N/A	441441	339423
EDR2432	Historic building survey, Church Farm, Ockbrook by TPA, in 2007		N/A	442392	335731
EDR2607	Watching brief, Piggin Wood, Ockbrook, by ARS Ltd, in 2006		N/A	442708	337066
EDR2781	Archaeological evaluation, Morley Retreat and Conference Centre, by UMAU in 1999		N/A	439717	340925
EDR2781	Archaeological evaluation, Morley Retreat and Conference Centre, by UMAU in 1999		N/A	439723	340937
EDR2781	Archaeological evaluation, Morley Retreat and Conference Centre, by UMAU in 1999		N/A	439719	340905

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2781	Archaeological evaluation, Morley Retreat and Conference Centre, by UMAU in 1999		N/A	439699	340940
EDR3028	Earthwork survey, Derwent Valley Aqueduct to Strelley Reservoir Pipeline, by TPA, in 1999		N/A	440814	339344
EDR3028	Earthwork survey, Derwent Valley Aqueduct to Strelley Reservoir Pipeline, by TPA, in 1999		N/A	441678	339164
EDR3028	Earthwork survey, Derwent Valley Aqueduct to Strelley Reservoir Pipeline, by TPA, in 1999		N/A	442282	339347
EDR3028	Earthwork survey, Derwent Valley Aqueduct to Strelley Reservoir Pipeline, by TPA, in 1999		N/A	442932	339421
EDR3077	Archaeological watching brief, at St Matthew's Church, Morley, by Birmingham Archaeology, in 2009		N/A	439666	340979
EDR3333	Archaeological Watching Brief, Far Lane, by ARS Ltd, in 2012		N/A	443045	336848
EDR3503	Resistivity survey, Littlehay Grange, by TPAT, in 1997		N/A	443500	338055
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438691	329491
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438629	329503
EDR4684	Evaluation off Moor Lane, Aston upon Trent, 2017		N/A	441647	329807
EDR3382	Archaeological evaluation, Holmleigh Way, by ULAS, in 2013		N/A	437417	329688
EDR5077	A Bronze Age Round Barrow at Swarkestone.		N/A	436642	329467
EDR5077	A Bronze Age Round Barrow at Swarkestone.		N/A	436636	329458
EDR5077	A Bronze Age Round Barrow at Swarkestone.		N/A	436625	329469

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR5077	A Bronze Age Round Barrow at Swarkestone.		N/A	436624	329451
EDR5078	Excavation of Barrow 4 at Swarkestone.		N/A	436862	329469
EDR3512	Archaeological assessment, Mickley Farm, by Tyne & Wear Museums, in 1996		N/A	439755	360164
EDR5021	Watching Brief Near One Acre, Main Road, Stretton, 2016		N/A	439362	361743
EDR5021	Watching Brief Near One Acre, Main Road, Stretton, 2016		N/A	439363	361724
EDR2704	Archaeological watching brief, Furlane Ends, Oakerthorpe, by ARS Ltd, in 2008		N/A	438926	355823
EDR2704	Archaeological watching brief, Furlane Ends, Oakerthorpe, by ARS Ltd, in 2008		N/A	438924	355799
EDR2704	Archaeological watching brief, Furlane Ends, Oakerthorpe, by ARS Ltd, in 2008		N/A	438920	355781
EDR2704	Archaeological watching brief, Furlane Ends, Oakerthorpe, by ARS Ltd, in 2008		N/A	438918	355761
EDR4005	Roof truss survey and recording, Bull Farm, Higham, in 1971		N/A	439033	359168
EDR4453	Aerial photograph interpretation, at a site west of Mickley Lane, by RCHME, in 1995		N/A	439319	359941
EDR2890	Archaeological evaluation, Old Plough Inn, Weston-upon-Trent, by Midland Archaeological Services, in 2010		N/A	440519	328208
EDR2890	Archaeological evaluation, Old Plough Inn, Weston-upon-Trent, by Midland Archaeological Services, in 2010		N/A	440534	328219
EDR2890	Archaeological evaluation, Old Plough Inn, Weston-upon-Trent, by		N/A	440542	328212

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
	Midland Archaeological Services, in 2010				
EDR2890	Archaeological evaluation, Old Plough Inn, Weston-upon-Trent, by Midland Archaeological Services, in 2010		N/A	440551	328206
EDR2957	Archaeological watching brief at Holly Bush Cottage, Swarkestone, by ARS Ltd, in 2012		N/A	437032	328582
EDR2988	Archaeological watching brief, The Cooper's Arms, Weston-on-Trent, by ARS Ltd in 2011		N/A	440338	328356
EDR3053	Archaeological watching brief, at The Old Plough, Weston-on-Trent, by Midland Archaeological Services, in 2012		N/A	440517	328217
EDR3057	Archaeological evaluation, at Fox Covert Farm, Aston-on-Trent, by Foundations Archaeology, IN 2004		N/A	441573	330521
EDR3058	Geophysical survey, at Fox Covert Farm, Aston-on-Trent, by GSB Prospection Ltd, in 2003		N/A	441698	330560
EDR3058	Geophysical survey, at Fox Covert Farm, Aston-on-Trent, by GSB Prospection Ltd, in 2003		N/A	441654	330531
EDR3058	Geophysical survey, at Fox Covert Farm, Aston-on-Trent, by GSB Prospection Ltd, in 2003		N/A	441559	330501
EDR3100	Photographic survey, at Shardlow Primary School outbuildings, by Derbyshire County Council, in 2014		N/A	443199	330628
EDR3419	Trial excavation, Lowes Farm, Swarkestone Lowes, by TPAT, in 1993		N/A	436419	329554
EDR3432	Trial excavation, Ambaston Lane, by Trent & Peak, in 1989		N/A	443216	331292
EDR2446	Building Survey of Moor Farm Cottage South, Shardlow, by RCHME, in 1990		N/A	442778	330826

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2447	Building Report, Moor Farm Cottage North, Shardlow, by RCHME, in 1992		N/A	442708	330988
EDR2443	Desk-based assessment, land south of Holmleigh Way, Chellaston, by ARCUS, in 2007		N/A	437636	329556
EDR1853	Excavation, circular feature on Bellington Hill, by DAS, in 2003		N/A	442322	331525
EDR1662	Trial excavation, Ambaston Lane, by TPAU, in 1989		N/A	443216	331292
EDR4060	Watching brief, St James' Church, Swarkestone, by TPAU, in 1999		N/A	437195	328589
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438360	329445
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438552	329528
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438121	329406
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438218	329403
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438094	329494
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438183	329527
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438300	329530
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438433	329541
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438466	329538
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438623	329469
EDR2774	Watching brief, High Meadow, Barrow-upon-Trent, by Trent & Peak Archaeology, in 2007		N/A	434818	327750

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR3013	Archaeological watching brief, High Meadow, Barrow on Trent, by TPA, in 2008		N/A	434872	327747
EDR5129	Geophysical Survey Report of Land Weston Road, Weston on Trent		N/A	440576	328398
EDR5199	Land at Boulton Moor, East of Chellaston Lane (Phases 3 & 4), Derby: Archaeological Excavation		N/A	440159	331511
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438678	329488
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438667	329468
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438402	329388
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438546	329438
EDR3398	Evaluation at Chellaston Fields, Chellaston Hill, Swarkestone, 2012		N/A	438699	329467
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	437984	329490
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	438030	329492
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	438040	329514
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	438081	329504
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	438110	329539
EDR4662	Evaluation at Chellaston Fields, Swarkestone, 2015		N/A	438143	329520
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438209	329489
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438208	329385

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438322	329427
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438320	329391
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438371	329418
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438415	329449
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438430	329427
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438505	329428
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438488	329505
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438517	329490
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438540	329474
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438493	329539
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438525	329533
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438567	329504
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438567	329578

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438598	329544
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438630	329542
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438634	329578
EDR4665	Evaluation of Land off Swarkestone Road, Chellaston, Swarkestone, 2017		N/A	438591	329462
EDR1660	Excavation in advance of pipeline construction, Swarkestone Lowes, by TPAU, in 1994		N/A	436504	329558
EDR1664	Excavations, Swarkestone Lowes, by TPAU, in 1994		N/A	436396	329616
EDR1665	Geophysical survey, Swarkestone Lowes, by Stratascan, in 1993		N/A	436353	329593
EDR3307	Geophysical survey report, Chellaston, Derbyshire, by Stratascan, in 2010		N/A	436041	331106
EDR3448	Structure appraisal, Swarkestone Bridge, by Derbyshire Records Office, in 1978		N/A	436976	328032
EDR2913	Desk-based assessment, Kilburn Sewage Treatment Works, by Wessex Archaeology, in 2011		N/A	437561	344960
EDR4469	Archaeological Desk-based Assessment of Land at The Spotted Cow, Holbrook, 2016		N/A	436403	344900
EDR4500	Watching Brief at St Clements Church, Church Street, Horsley, 2016		N/A	437520	344497
EDR4520	Evaluation at The Spotted Cow, Holbrook, 2017		N/A	436386	344899
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	433954	330293

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	433962	330336
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	433955	330317
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	433954	330277
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434297	330175
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434329	330148
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434364	330123
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434389	330102
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434408	330083
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434615	330040
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434600	330012
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434573	329982
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434839	330170
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434839	330142
EDR2376	Trial Trenching Off Wragley Way, Sinfin, Stenson Fields, 2006		N/A	434809	330102
EDR2375	Geophysical Survey Off Wragley Way, Stenson Fields, 2006		N/A	433964	330311
EDR2375	Geophysical Survey Off Wragley Way, Stenson Fields, 2006		N/A	434356	330129
EDR2375	Geophysical Survey Off Wragley Way, Stenson Fields, 2006		N/A	434601	330031
EDR2375	Geophysical Survey Off Wragley Way, Stenson Fields, 2006		N/A	434831	330137

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2374	Cultural Heritage Assessment, Off Wragley Way, Stenson Fields, 2005		N/A	433533	330566
EDR2374	Cultural Heritage Assessment, Off Wragley Way, Stenson Fields, 2005		N/A	434328	330155
EDR2374	Cultural Heritage Assessment, Off Wragley Way, Stenson Fields, 2005		N/A	434808	330132
EDR3959	Survey of Cromford and Belper Survey Transects, Derwent Valley Mills World Heritage Site, 2008		N/A	434497	346503
EDR2565	Fieldwalking, at Stenson Farm, by Trent & Peak, in 1993		N/A	432192	330317
EDR2566	Geophysical survey, Stenson Farm, by Trent & Peak, in 1993		N/A	432248	330419
EDR2595	Desk-based assessment, Fryzms House Farm, Stenson, by TPA, in 2008		N/A	432250	329522
EDR2625	Geophysical survey, Lower Farm, Stenson, by TPA, in 2008		N/A	432515	329472
EDR2800	Archaeological evaluation, Fryzms House Farm, Stenson, by Stoke-on-Trent Archaeology, in 2008		N/A	432281	329591
EDR2800	Archaeological evaluation, Fryzms House Farm, Stenson, by Stoke-on-Trent Archaeology, in 2008		N/A	432215	329527
EDR2800	Archaeological evaluation, Fryzms House Farm, Stenson, by Stoke-on-Trent Archaeology, in 2008		N/A	432316	329599
EDR2800	Archaeological evaluation, Fryzms House Farm, Stenson, by Stoke-on-Trent Archaeology, in 2008		N/A	432338	329590
EDR2800	Archaeological evaluation, Fryzms House Farm, Stenson, by Stoke-on-Trent Archaeology, in 2008		N/A	432315	329541
EDR2358	Desk-based assessment, land at Stenson Fields Farm, Stenson, by White Young Green, in 2006		N/A	433363	330920

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2958	Archaeological watching brief at Lower Farm, Stenson, by Trent & Peak Archaeology, in 2011		N/A	432521	329462
EDR2437	Historic Building Survey, Arleston House Farmhouse, Barrow-on-Trent, by RCHME, in 1990		N/A	433697	329640
EDR4143	Geophysical survey at Harry's Farm, Stenson by Trent & Peak Archaeology in 2014		N/A	432499	329513
EDR1677	Archaeological work at Swarkestone Quarry, Barrow-upon-Trent, by TPAT in 1995/6		N/A	434382	328148
EDR2352	Monitoring at Swarkestone Quarry, South of Twyford Road, Barrow upon Trent, 2001-2006		N/A	434325	327550
EDR4054	Excavation, Fleak Close, Barrow Upon Trent, by TPAU, in 1998		N/A	434235	327887
EDR4055	Excavation, Captain's Pingle, Barrow Upon Trent, by TPAU, in 1999		N/A	434480	327769
EDR4424	Archaeological Strip, Map and Sample and Watching Brief, at Pine Lake, by ARS Ltd, in 2015		N/A	432041	329462
EDR4435	Archaeological Strip, Map and Sample, at Potlock's Farm, by Historic Environment and Archaeology Service, in 2010		N/A	431331	328848
EDR4956	Watching Brief at Cuckoowood Barn, Arleston Farm, off Arleston Lane, Barrow upon Trent, 2014		N/A	434032	329913
EDR5061	'The Findern Cursus'		N/A	431766	328875
EDR5062	Potlock's Farm Investigation: Non-intrusive element		N/A	431469	328876
EDR5062	Potlock's Farm Investigation: Non-intrusive element		N/A	432067	328914
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431513	328747
EDR5063	Potlock's Farm Investigation: Intrusive element		N/A	431378	328715

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR3464	Potlock, Derbyshire : Excavations, 1994		N/A	431753	329080
EDR3464	Potlock, Derbyshire : Excavations, 1994		N/A	431746	329011
EDR3464	Potlock, Derbyshire : Excavations, 1994		N/A	431761	328870
EDR5062	Potlock's Farm Investigation: Non-intrusive element		N/A	430781	328506
EDR3574	Assessment, land south of Littleover, by CPM, in 1998		N/A	432728	331236
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429555	328809
EDR2672	Archaeological excavation, Mercia Marina, Willington, by ARS Ltd, in 2008		N/A	430351	329370
EDR2674	Archaeological evaluation, Willington Power Station site, by Oxford Archaeology, in 2005		N/A	430906	329013
EDR2675	Aerial photographic assessment, Willington Power Station site, by Air Photo Services, in 2004		N/A	430759	328957
EDR2676	Desk-based assessment, Willington Power Station site, by JSAC, in 2004		N/A	430934	329120
EDR2677	Geophysical survey, Willington Power Station site, by GSB Prospection Ltd, in 2005		N/A	430813	328498
EDR1742	Resistivity survey, Potlock's House Farm, Willington, by TPAU in 1994		N/A	431324	328879
EDR2766	Augering, land west of Frizam's Lane, Potlock/Willington, by TPAT in 1994		N/A	431655	329220
EDR2767	Machine-trenching west of Frizam's Lane, Potlock/Willington, by TPAT in 1995		N/A	431672	329223
EDR2767	Machine-trenching west of Frizam's Lane, Potlock/Willington, by TPAT in 1995		N/A	431677	329047

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2767	Machine-trenching west of Frizam's Lane, Potlock/Willington, by TPAT in 1995		N/A	431697	329042
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429593	328891
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429499	328877
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429539	328882
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429570	328884
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429531	328781
EDR3354	Archaeological evaluation, Dale Farm, by OA North, in 2013		N/A	429654	328828
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429545	328889
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429507	328832
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429553	328845
EDR1701	Geophysical survey and trial trenching, Hill Farm, Willington, by BUFAU in 1995		N/A	429949	329551
EDR1702	Initial evaluation of land at Hill Farm, Willington, by Trent & Peak Archaeological Unit, in 1990		N/A	429922	329580
EDR1704	Archaeological excavation at Hill Farm, Willington, by BUFAU in 1996		N/A	429949	329553
EDR2672	Archaeological excavation, Mercia Marina, Willington, by ARS Ltd, in 2008		N/A	430110	329600
EDR2672	Archaeological excavation, Mercia Marina, Willington, by ARS Ltd, in 2008		N/A	430259	329337

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR2672	Archaeological excavation, Mercia Marina, Willington, by ARS Ltd, in 2008		N/A	430292	329303
EDR4726	Strip, Map and Recording at Mercia Marina Car Park, Findern Lane, Willington, 2018		N/A	430247	329297
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429579	328788
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429587	328824
EDR5203	Evaluation near site of Two Ring Ditches, Willington		N/A	429612	328800
EDR5204	Excavation of two ring ditches, Willington		N/A	429530	328781
EDR5204	Excavation of two ring ditches, Willington		N/A	429651	328828
EDR2549	Building Survey of Sutton Manor, Sutton Scarsdale, by TPAU in 1995		N/A	444512	368680
EDR3927	Historic building survey, Sutton Scarsdale Hall, by TPAT, in 1996		N/A	444241	368884
EDR3481	Desk-based assessment, Mill Lane, by Wardell Armstrong, in 1996		N/A	444632	366123
EDR3662	Desk-based assessment, River Doe Lea Syphon, by Northern Archaeological Associates, in 2002		N/A	445984	367121
EDR2920	Archaeological evaluation, Stainsby Schoolhouse, by Trent & Peak Archaeology, in 2011		N/A	444941	365617
EDR3668	Site monitoring, Stainsby defended manorial complex, by Hunter Archaeological Society, in 2003		N/A	444958	365650
EDR3980	Conservation area appraisal and management plan, Astwith, by Bolsover District Council, in 2010		N/A	443877	364169
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441028	370825
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441016	370779
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441046	370785

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441088	370744
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441102	370708
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441132	370816
EDR5272	Land at Oaks Farm Lane, Calow.		N/A	441162	370799
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	438939	363030
EDR4477	Geophysical Survey of Land off Little Morton Road, North Wingfield, 2016		N/A	441211	364528
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	438936	363071
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	438963	363062
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	438985	363040
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	439011	363048
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	438985	363086
EDR5279	Trial Trenching, Off Clay Lane, Clay Cross, 2021		N/A	439009	363075
EDR5290	Area Excavation, Off Clay Lane, Clay Cross, 2021		N/A	438997	363042
EDR5290	Area Excavation, Off Clay Lane, Clay Cross, 2021		N/A	439013	363076
EDR3008	Archaeological watching brief, Dale Abbey to Hopwell, by ARS Ltd, in 2012		N/A	444143	336484
EDR3019	Geophysical survey, Derwent Valley Aqueduct to Strelley Reservoir Link Main, by GSB Prospection, in 1998		N/A	444175	339791
EDR1683	Field evaluation, walkover and earthwork surveys, and auger programme, Elvaston, by ARCUS, in 1995		N/A	442514	333031

HER (Historic Environment Record) Preferred Reference Number	Asset Name	Site	Period	Easting	Northing
EDR3112	Desk-based assessment, Derwent Valley Aqueduct Duplication Route, by Wessex Archaeology, in 2012		N/A	442551	336521
EDR2999	Watching brief, Draycott Rising Main, by Wessex Archaeology, in 2011		N/A	442318	333798
EDR3001	Watching brief at St Clement's Church, Horsley, by ArcHeritage in 2011		N/A	437564	344500
EDR3077	Archaeological watching brief, at St Matthew's Church, Morley, by Birmingham Archaeology, in 2009		N/A	439629	340922
EDR5077	A Bronze Age Round Barrow at Swarkestone.		N/A	436635	329459
EDR2287	Watching brief, All Saints Church, South Wingfield, by Tony Sumpter, in 2005		N/A	438314	355777
EDR2287	Watching brief, All Saints Church, South Wingfield, by Tony Sumpter, in 2005		N/A	438329	355765
EDR2287	Watching brief, All Saints Church, South Wingfield, by Tony Sumpter, in 2005		N/A	438326	355770
EDR333	Site visit, circular features on Bellington Hill, by A Myers, on 9th August, 1994		N/A	442353	331487
EDR2968	Preliminary scoping and options study, Cromford Canal, by Atkins, in 2010 to 2011		N/A	438144	351811
EDR1723	Archaeological assessment, Derby Southern Bypass, by TPAU, in 1992		N/A	434852	329816
EDR3547	Watching brief, Derby Rifle and Pistol Club, by TPAU, in 1999		N/A	432215	329515
EDR3808	Watching brief, Willington to Wetmore power lines, by TPAU, in 2004		N/A	427860	326197
EDR2548	Watching Brief, Sutton Scarsdale, by TPAT, in 1994		N/A	444153	368886

Appendix 10A High Level Geotechnical Desk Study Report

nationalgrid



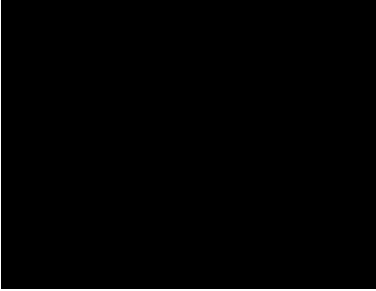
Chesterfield to Willington East

High-Level Geotechnical Desk Study

March 2024



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Chesterfield to Willington East

High-Level Geotechnical Desk Study

March 2024



Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
					

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Introduction

1.1 Project Background

The National Grid's electricity transmission network in the north of England has been identified to require reinforcement to relieve existing and future constraints. The Chesterfield to Willington East project comprises the construction of a new 400kV overhead line (OHL) double circuit between the Chesterfield and Willington East 400kV substations, resulting in an approximate OHL route length of 65km. The project is one of seventeen major transmission projects to improve the UK's connectivity to offshore wind electricity production. Mott MacDonald has been commissioned by National Grid to provide engineering support for the Chesterfield to Willington East project with the overall objective of de-risking the project and programme.

An OHL corridor has been selected, as shown in Figure 2.1, but the finalised route alignment is yet to be decided. This desk study is limited to a high-level review of publicly available data and will consider the full width of the selected corridor. National Grid's environmental consultant will review the landscape, ecology and historical environment; therefore, the review of these aspects is not included in the scope of this desk study.

1.2 Objectives

Key geotechnical risks and constraints within the corridor will be highlighted in this report. These will be subsequently reviewed and in combination with other engineering/environmental constraints, a finalised OHL route will be selected.

1.3 Scope of Report

1. Identify the anticipated ground profile within the corridor.
2. Identify potential ground risks to the proposed works based on researching publicly available data/sources in the following areas:
 - a. Topography
 - b. Geomorphology
 - c. Hydrology and Flooding
 - d. Geology
 - e. Hydrogeology
 - f. Anthropocene
3. Identify potential ground risks with the proposed construction through spatial representation using GIS layers.
4. Produce a preliminary geotechnical risk register for the corridor.
5. Produce a preliminary conceptual ground model by reviewing publicly available data.

2 Data Review

A preliminary data review was conducted by Mott MacDonald in November 2023 for a high-level geotechnical desk study of the entire study area that, at the time, comprised eight different corridors. Since then, a preferred corridor has been selected. The updated data review provided in this report is specific to the reduced area of interest.

However, the corridor still covers a large area. Due to the extent of the corridor, a site walkover has not been conducted and a detailed geo-environmental report, such as those provided by Envirocheck or Groundsure, has not been obtained yet.

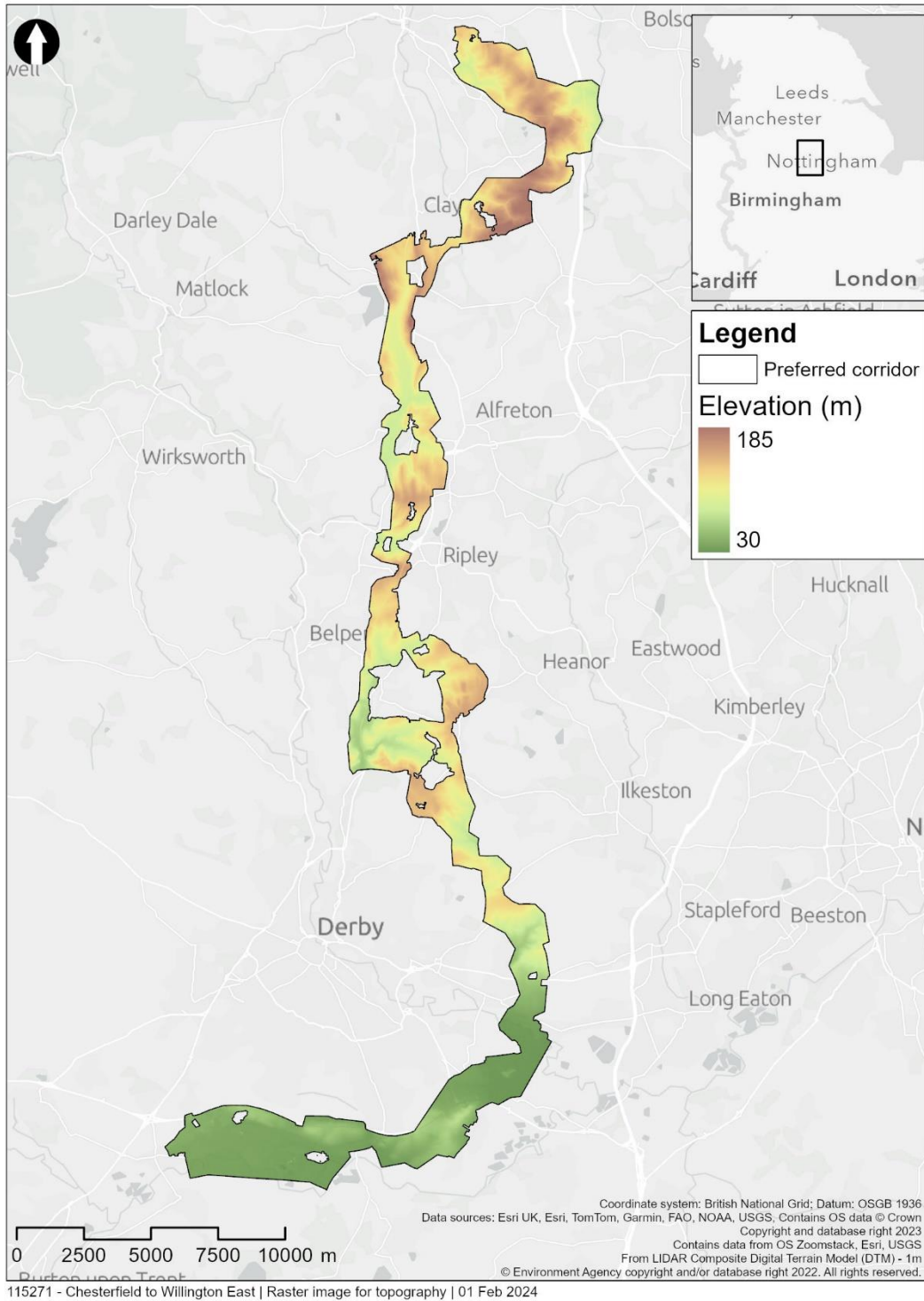
2.1 Ground Profile

2.1.1 Topography

A raster image has been created within *ArcGIS Pro* from a LIDAR 1m digital terrain model (DTM) to visually display the corridor's elevation profile and can be seen in Figure 2.1 below. For the following description all values should be taken as approximations and the elevations given are above Ordnance Datum.

From Chesterfield to Clay Cross the elevation ranges between +140m AOD and +180m AOD before steeply falling to +120m AOD around Stretton. Ground level remains around +100m AOD from Stretton to Belper, with the exception of two areas northwest and west of Ripley which steeply increase to around +140m AOD. Where the corridor splits just south of Belper, the eastern route is around +120m, while the western route gradually drops to +60m AOD before steeply increasing back up to +140m AOD south of Horsley Lodge. Where the two sections of the corridor join up again around Morley Hayes Golf Club, ground level is relatively uniform at about +100m AOD, gradually dropping to +60m AOD east of Ockbrook. From Ockbrook to Willington East substation, elevations gently fall and rise from +60m AOD to +40m AOD. This flat, low-lying land is within the Trent Valley Washlands described in *Section 2.1.2.3*.

Figure 2.1: Raster image to show the Corridor's Elevation Profile.



Source: Mott MacDonald. Created from LIDAR 1m DTM data within ArcGIS Pro.

2.1.2 Geomorphology

The following information has been obtained from published documents produced by the Derbyshire County Council [1].

The corridor is entirely within the county of Derbyshire, East Midlands. Most of the corridor, from Chesterfield to Ockbrook, is within the Derbyshire Coalfield. From Ockbrook to Willington the corridor is within the Trent Valley Washlands. However, small sections of the far west-central regions fall within the Derbyshire Peak Fringe and Lower Derwent area as well. All area designations are shown in Appendix A.

2.1.2.1 The Derbyshire Coalfield

The Derbyshire Coalfield is a broad belt of low-lying land formed in extensive swamps on the edge of a warm tropical sea 350 million years ago. The cyclical process of vegetation growth and sediment deposition is now fossilised in the alternating bands of sandstone, shale, mudstone and coal, collectively known as the Coal Measures Group. Future uplift and erosion exposed the characteristic ridges (sandstone) and valleys (shale, mudstone, and coal) seen in the region today.

Ancient semi-natural woodland occurs as isolated relic patches and is associated with the steeper slopes or valley bottoms where soils have been difficult to cultivate. Rivers, streams and wetland are important habitats in the area, and those created by mining subsidence and abandoned industry are a particular characteristic. However, due to industrial pollution, their condition has been seriously affected, although it is noted in recent years the situation has improved.

The landscape is rich in industrial archaeology resulting from mineral extraction, and in particular, coal. Industrial remains include bell-pits, colliery spoil, old railways and tramways, canals and bridges. In the north, woodlands often contain evidence of former industry associated with coal and ironstone mining.

2.1.2.2 Derbyshire Peak Fringe and Lower Derwent

This area encompasses a large part of Derbyshire, however, for the purpose of this desk study only its eastern extents are of importance. Therefore, the following information is accurate to its eastern regions, but is not accurate of the whole area.

Central to the character of the Derbyshire Peak Fringe and Lower Derwent are the Rivers Amber and Derwent. Woodland is well represented throughout with extensive ancient semi-natural woodland occupying steep valley sides and smaller woodlands elsewhere. Species-rich hedgerows with hedgerow trees are also prevalent. Underlying geology includes bands of sandstone, mudstone and coal seams belonging to the Coal Measures Group, and small-scale coal mining works have taken part within the Wooded Farmlands.

2.1.2.3 Trent Valley Washlands

The Trent Valley Washlands is a somewhat fragmented landscape, composing of pastoral and arable land, urban development, transport routes and localised mineral extraction. It constitutes a distinct, broad, linear band which follows the River Trent from Burton-on-Trent in the west to Long Eaton in the east, as well as including the lower parts of the Rivers Dove and Derwent. The broad, meandering rivers regularly flooding over the adjacent land and woodlands are few in number throughout the area. Sand and gravel extraction, and subsequent restoration, has created localised areas of open water. Mineral extraction has also created additional open water areas, as well as marshes and wet woodland, some of which have become important wildlife habitats. In some sections of the River Trent flood plain, active gravel extraction and open water strongly influences the landscape character.

The geology comprises Mercia Mudstones overlain by fluvioglacial, periglacial and river deposits of mostly sand and gravel, to form terraces flanking the rivers. The gravel terraces of the Lowland Village Farmlands form coarse, sandy loam, while the Riverside Meadows are predominantly a heavy clay loam. Locally constrained to Stenson Fields and Sinfin Moor, the Wet Pasture Meadows are distinctive grey, calcareous clays affected by ground water and occasional flooding. These variations in soils have determined the nature of agricultural practices and settlement patterns: mixed farming and villages of the Lowland Village Farmlands are located on the slightly higher levels which are more permeable, while the unsettled pastoral areas form the Riverside Meadows of the flood plain.

2.1.3 Hydrology

Ordnance Survey data [2] shows the corridor has five rivers (one in close proximity to its northeastern boundary but is still included), one canal, several brooks and many streams at the perimeters of farmland. There are also several small ponds scattered throughout the corridor, but no reservoirs or lakes. However, there are large areas of standing water northwest of Shirland, southeast of Elvaston and southwest of Barrow upon Trent.

The rivers within the corridor are as follows:

- River Doe Lea runs 10-80m away from the northeastern boundary, north to south of Doe Lea.
- River Rother* is west of Park House Primary School, between Clay Cross and Lower Pilsley.
- River Amber** starts east of Ogston and ends south-southeast of South Wingfield.
- River Derwent* is west and southwest of Draycott.
- River Trent is south of the A5132 and intersects the preferred corridor between Willington and Swarkestone. The Trent and Mersey Canal* first appears east of Swarkestone and follows the corridor west to Willington.

The brooks/minor watercourses within the corridor, going from north to south, are as follows:

- Calow Brook, west/southwest of Calow.
- Muster Brook, northeast/east of Temple Normanton.
- Locko Brook, northwest of Park House Primary School.
- Smithy Brook, north of Bacon's Spring to southeast of Ogston, where it meets with River Amber.
- Alfreton Brook**, south/southeast of Toadhole Furnace, where it meets with River Amber.
- Horsecar Book, southwest of Stretton (parallels Smithy Brook for approximately 1500m)
- Birches Brook, southwest of Toadhole Furnace, where it meets with River Amber.
- Oakerthorpe** Brook, east of South Wingfield.
- Boggy Brook, southeast of South Wingfield.
- Hartshay Brook, south of Lower Hartshay.
- Bottle Brook***, south/southeast of Denby to west/southwest of Horsley.
- Park Brook***, south/southwest/southeast of Horsley.
- Gipsy Brook, southeast of Horsley.
- Stanley Brook, northwest/west of Stanley.
- Ock Brook*, east/northeast of Ockbrook.
- Cuttle Brook*, east/northeast of Swarkestone.
- Twyford Brook**, southwest/northwest of Twyford.
- Hell Brook, west of Stenson.

- Doles Brook**, west of Stenson.
- Old Trent Water, south of the River Trent, southwest of Willington.

*denotes where encountering the watercourse is unavoidable.

**although individually may be avoidable, these watercourses are part of a wider system of watercourses, which makes encountering at least one watercourse unavoidable.

***unavoidable if specific routes are chosen within the corridor.

2.1.3.1 Flooding

All watercourses listed in *Section 2.1.3* are associated with either Flood Zones 2 or 3, or both. A flood risk map is displayed in Appendix B and is based on the Environment Agency's flood map for planning [3].

Particularly wide coverage of Flood Zone 2/3 is associated with River Amber, Alfreton Brook, Hartshay Brook, Bottle Brook, River Derwent, Cuttle Brook, River Trent and Twyford Brook. Large land coverage of Flood Zone 3 occurs south/southwest of River Derwent and immediately south of Barrow upon Trent which extends west to Willington.

2.1.4 Geology

2.1.4.1 Superficial

A drawing has been produced using BGS GeoIndex 1:50k data [4] to display the corridor's superficial geology and is provided in Appendix C.2. It shows the majority of the corridor, roughly the northern four fifths of it from Chesterfield to east of Ockbrook is largely without superficial coverage. Where superficial deposits are present within this section, they occur as alluvial deposits locally constrained to the vicinity of rivers and brooks. In this section of the corridor, the largest alluvial deposit is associated with the River Amber, which is approximately 350m wide between South Wingfield and Oakerthorpe. Minor till deposits also occur west of Pentrich, southwest of Ripley, southeast of Kilburn and southwest of Stanley.

Extensive superficial coverage is present only in the southern fifth of the corridor.

The BGS 1km Hex-Grid Superficial Deposit Thickness dataset has been reviewed. This GIS data set downloaded online from the BGS Datasets (under the Open Government Licence) summarises information from the original, high resolution superficial deposits thickness model (BSTM) where the thickness variation has been directly derived from archive borehole and map records. In the 1km hex-grid data set the attributes displayed in each hexagon cell are as follows:

- COVER_PCT: percentage of the cell for which superficial thickness has been modelled, provided in Appendix C.3.
- BSTM_MAX: greatest thickness of deposits encountered beneath any given hexagon cell, provided in Appendix C.4
- BSTM_MEAN: average thickness of deposits from any given hexagon cell, provided in Appendix C.5

The BGS 1 km hex-grid thicknesses dataset displays the mean thicknesses of alluvial and till deposits in the northern top four fifths from Chesterfield to east of Ockbrook are of 0-1m, as seen in Appendix C.5.

The superficial deposits in the southern fifth of the corridor are alluvial or diamicton deposits with subordinate head and sand & gravel deposits. There is a distinct strong occurrence of the alluvial deposits corresponding to the flood plain locations of the Rivers Derwent and Trent. The BGS 1 km hex-grid thickness dataset displays the majority of mean thicknesses are between 1-

5m, but thicknesses of 5-10m do occur east of Willington and north of Weston-on-Trent, as seen in Appendix C.5.

2.1.4.2 Bedrock

A drawing has been produced using BGS GeoIndex 1:50k data [4] to display the corridor's bedrock geology and is provided in Appendix C.1. It shows that the bedrock geology of the northern approximately two thirds of the corridor from Chesterfield to west of Dale Abbey comprises of Pennine Middle/Lower Coal Measures Formation (PCMF) with secondary sandstones from various other units, including: Deep Hard Rock, Top Hard Rock, PCMF, Tupton Rock and the Crawshaw Sandstone. Depending on the finalised route, Tarporley Siltstone Formation, Moira Formation, Lenton Sandstone Formation and the Chester Formation may also be encountered. See Table 2.1 below for unit descriptions based off the BGS Lexicon [5].

The bedrock geology of southern third of the corridor firstly consists of the Tarporley Siltstone Formation with a possible occurrence of Chester Formation, and then into the dominant lithology of this section which is mudstone. Proceeding north to south along the corridor, this consist initially of mudstone of the Gunthorpe and Edwalton Members. The Cotgrave Sandstone Member is a narrow lithology which separates the two mudstone members, and this may possibly be encountered. After the Edwalton Member, the Branscombe Mudstone Formation is temporarily encountered, before re-encountering the Edwalton and Gunthorpe Members. If a southern route is chosen in the final quarter, the Helsby Sandstone Formation, Tarporley Siltstone Formation, Bowland Shale Formation and the Moira Formation may also be encountered.

Table 2.1: Bedrock unit descriptions based on the BGS Lexicon of Named Rock Units.

Unit	Unit Thickness (m)	Bedrock Unit Description
Pennine Lower Coal Measures Formation	Up to 650 in north Staffordshire	Interbedded grey mudstone, siltstone and pale grey sandstone. Mudstones commonly contain marine fossils in the lower part. Coal seams are more numerous and thicker in the upper part.
Pennine Middle Coal Measures Formation	Up to 600 in north Staffordshire	Interbedded grey mudstones, siltstone, pale grey sandstone and common coal seams. Marine fossil-bearing mudstones can be found in the upper half of the unit as well as the base.
Deep Hard Rock	Unknown	No BGS description provided.
Top Hard Rock	Unknown	No BGS description provided.
Tupton Rock	Unknown	No BGS description provided.
Crawshaw Sandstone	Up to 55.	Medium to coarse-grained, locally pebbly sandstone, massive or cross-bedded.
Tarporley Siltstone Formation	20-60	Interlaminated and interbedded siltstones, mudstones and sandstones in approximately equal proportions. The siltstones and most of the sandstones are micaceous, with the sand being mostly very fine to fine-grained. Most mudstone and siltstone beds are reddish brown, though green-grey beds and laminae are also common. Sandstones are grey-brown and substantially paler than the mudstones and siltstones. Gypsum occurs sporadically in the mudstones as small nodules.

Unit	Unit Thickness (m)	Bedrock Unit Description
Moira Formation	Generally 0-15. Can be up to 55.	Subangular conglomerate. Matrix is a red sandy mudstone.
Lenton Sandstone Formation	12-70	Very fine- to medium-grained sandstone. Argillaceous, red-brown with buff mottles, cross-stratified. Subordinate beds of red-brown mudstone and conglomerate.
Chester Formation	220-300	Conglomerate with reddish-brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone. The conglomerate has a reddish-brown sandy matrix and consist mainly of brown/purple quartzite and vein quartz. The formation generally fines upwards, whereby conglomerates predominate at the base, and interbedded conglomerate with sandstone/pebbly sandstones predominate at the top.
Gunthorpe Member	70-90	Red-brown mudstone with subordinate dolomitic siltstone and fine-grained greenish grey sandstone. Gypsum veins and nodules are a common occurrence.
Edwalton Member	35-45	Red-brown mudstone and siltstone. Greenish grey beds of variably dolomitic siltstone/very fine-grained sandstone are common in the lower half. Finely disseminated gypsum is common in the upper half.
Cotgrave Sandstone Member	1-5	Interbedded sandstone and mudstone with siltstone. Sandstone is fine- to medium-grained, pale greenish grey and dolomitic. Mudstone with siltstone is a dark greenish grey. Gypsum nodules are common throughout the Member.
Branscombe Mudstone Formation	25-60	Red-brown mudstone and siltstone. Sporadic thin beds of argillaceous sandstone and silty dolomite occur in the lower part of the formation. Thinly laminated beds of dark grey-green mudstone and dolomitic siltstone occur locally towards the top of the formation. Gypsum/anhydrite is a common occurrence as nodules or veins throughout. Many of these sulphate beds have been named, are of local economic importance and form distinct markers on geophysical logs. For example, the <i>Tutbury Gypsum</i> is being extracted underground at Fauld Mine, SK 18147 28403, and the <i>Newark Gypsum</i> is being open-pit extracted at Bantycok Quarry, SK 81641 49478. Both sites are owned by British Gypsum.
Helsby Sandstone Formation	Unknown	Fine- to medium-grained, locally micaceous, cross- and/or flat-bedded sandstones. Pebbles may be common particularly near the base. Thin lenticular reddish-brown siltstone and mudstone beds occur and may be common in fining-upward sequences.
Bowland Shale Formation	120-620	Dark grey and weakly calcareous mudstone with subordinate sequences of interbedded limestone and sandstone.

2.1.4.3 Structural

The wider regional area has been subjected to a complex geological history which has developed widespread faulting, represented by the corridor’s abundant NW-SE and subsidiary NE-SW striking faults.

For a regional context, approximate N-S extension during the early Carboniferous developed major half-grabens bounded by WNW- to NW-, and to a lesser extent, NE-striking faults. This rifting was followed by thermally driven subsidence in the middle to late Carboniferous in a fluvial deltaic environment [6], which gave rise to the deposition of the Pennine Coal Measures Group. Normal extensional faults developed immediately preceding Variscan shortening [7] which dominantly have a N- to NW-, with a subsidiary NE-striking system in the Pennine Coal Measures Group [8]. Continued Variscan deformation led to the development of gentle folds within the Pennine Coal Measures Group [9]. Uplifted areas from the deformation were soon

eroded, but the strata in topographical low points were preserved and make up the present-day coalfields [9]. The folds produce a relatively undulating landscape, with locally steep-sided valleys between stronger sandstone beds [8].

The faults are best seen in the cross-sections in BGS map sheets 125 [10] and 112 [11], which are shown in Appendices A.3.6 and A.3.7, respectively. The half-grabens are the large faults extending from the surface down to more than 1000m below ground level. They are extensional in nature and the strata on the northeast side of the fault are downthrown relative to the strata on the southwest side. Several of these half-grabens are expected to be encountered within the corridor judging from their locations on the cross-sections. The normal extensional faults developed immediately preceding Variscan shortening are abundant within the study area and can be seen as the NW- to NNW-striking faults primarily within the Pennine Coal Measures Group; they have extensional components, and the downthrown side is often the block on the northeast of the fault, but this is not always the case. The gentle folds developed from continued Variscan deformation can also be seen in the BGS map sheets' cross-sections, especially the Brimington anticline in map sheet 112 which is situated in the village Calow; strata are expected to dip gently to the northeast and southwest either side of the fold axial plane. This is illustrated in section A of the conceptual ground model as seen in Appendix D.

According to CIRIA C758D [12], the general geological structure of exposed coal measures within the corridor dip gently eastwards and pass beneath younger strata. However, due to the regional area's faulting and folding, the coal measures can have a reversed dip.

2.1.4.4 Borehole Records

Appendix D.1 displays the available BGS historical borehole records within the corridor, taken from BGS GeolIndex [4]. Exclusive of southern areas, where they are located, the boreholes are poorly concentrated and many contain insufficient data to reference. Only two areas were identified to contain some concentration of reliable data: southeast of Clay Cross and northwest of Weston-on-Trent. The boreholes' locations and data can be seen in Appendices D.2 and D.3, respectively.

2.1.5 Conceptual Ground Model

Based on a review of available BGS data, four conceptual ground models have been suggested as shown in Appendix D.3. Sections A and C have been extrapolated from BGS published map sheets 112 and 125, respectively. Sections B and D used BGS borehole records to gather depth of glacial deposits/artificial ground, as well as BGS published map sheets 112 and 125 to infer deeper geology. Borehole locations and data can be seen in Appendix D.2 and D.3, respectively. The published map sheets are shown in Appendices C.6 and C.7.

The selection of boreholes from southeast of Clay Cross (section B) have been used to gather depth of artificial ground. Although three out of the four boreholes used are outside of the corridor, due to their vicinity to it and lack of data directly within the corridor, they have been included to show the likely depth of artificial ground within the corridor. As shown in Figure 2.2, the corridor's artificial ground has a strong correlation to past surface mining which is consistent where both occur throughout the entire corridor. As recorded in SK46SW54, artificial ground can be at least 9.5m thick, which is a possible indicator for the depth of artificial ground throughout the corridor. Note this borehole was terminated at 9.5m below ground level, so this is a minimum thickness of artificial ground at this location.

The selection of boreholes from northwest of Weston-on-Trent (section D) have been used to gather depth of glacial deposits. Something to note is the remarks of gypsum fragments being present in several boreholes which is associated with the mudstone bedrock units in the south of the corridor, and is consistent with their unit descriptions from the BGS Lexicon [5].

2.2 In-Ground Risks and Constraints

2.2.1 Artificial Ground & Permitted Waste/Authorised Landfill Site

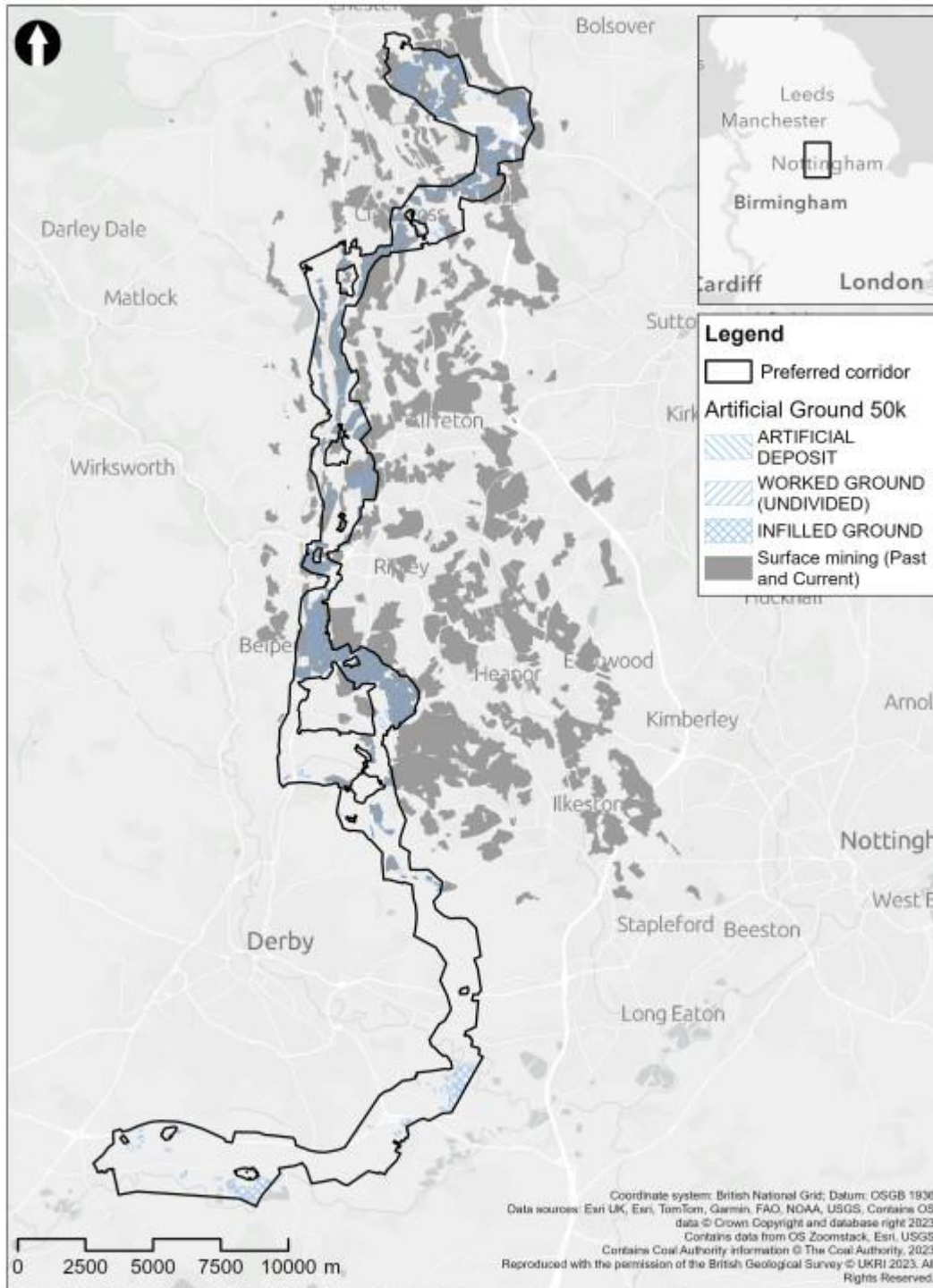
Areas containing artificial ground occur where the ground surface has been modified by human activity. BGS GeoIndex [4] shows widespread coverage of artificial ground in the top half of the corridor, with particular concentrations in the section between Chesterfield to Stretton and between Ripley to Horsley Woodhouse. BGS Lexicon [5] describes the subcategories of artificial ground as the following:

- Infilled ground: areas where pre-existing ground has been excavated and subsequently partially or completely backfilled.
- Worked ground: areas where pre-existing ground has been lowered as a result of man-made excavations.
- Made ground: areas where pre-existing ground has been raised as a result of artificial deposits.

There's a low coverage of artificial ground in the southern half of the corridor, although particularly large areas are present southwest of Draycott and south of Barrow upon Trent. The vast majority of all artificial ground within the corridor consists of infilled ground with minor worked ground (void) and made ground also being present. Something to note is the spatial correlation between artificial ground and past surface mining, as shown in Figure 2.2 below. Surface mines were typically worked until either the coal was exhausted, or the mining became uneconomical. They were then backfilled, often using uncompacted mining spoils, which means the corridor may have areas that are at risk of settlement, surface-bearing capability issues and/or contamination or concrete aggressive environment [12].

According to the Environment Agency [13] there is only one site of permitted waste/authorised landfill which is south of Barrow upon Trent. There are no known historical landfill sites within the corridor. The locations of both artificial ground and the permitted waste/authorised landfill site can be seen in Appendix E.

Figure 2.2: Spatial correlation between areas of Artificial Ground and Past Surface Mining.



115271 - Chesterfield to Willington East | Artificial Ground & Surface Mining (past and current) | 17 Jan 2024

Source: Mott MacDonald. Created from BGS GeoIndex and Coal Authority data within ArcGIS Pro.

2.2.2 Designated Aquifers and Source Protection Zones

Principal and Secondary aquifers provide significant quantities of drinking water for business needs and may also support rivers, lakes and wetlands. Secondary aquifers can be subcategorised into Secondary A and Secondary B aquifers. Secondary A aquifers have more permeable layers than Secondary B aquifers, and therefore can store or yield more groundwater than Secondary B aquifers. Secondary undifferentiated aquifers are those where it is not possible to differentiate the material between the two types of Secondary aquifers. [14]

According to the Department for environment, Food & Rural Affairs (DEFRA) *Magic Map* [15], the majority of the corridor's superficial deposits are Secondary A aquifers with a minor portion being Secondary undifferentiated aquifers. The corridor's bedrock is split into the following classifications:

- From Chesterfield to Dale Abbey: Secondary A aquifer.
- A small area of the corridor's bedrock south of Dale Abbey: Principal aquifer.
- South of Dale Abbey: mainly Secondary B aquifer. A small area east of Swarkestone is a Principal aquifer and the southern border (approximately cropped to River Trent) is a Secondary A/Principal aquifer.

According to the DEFRA *Magic Map* [15], the corridor does not cross over any source protection zones.

2.2.3 Unexploded Ordnance (UXO)

The Zetica online risk map [16] displays the corridor being with a low-risk zone in terms of World War II bombing densities, however, the map indicates several strategic targets may be encountered within the corridor such as decoy and industry sites. UXO risk has not been included as a parameter in the in-ground risk heatmapping at this stage. Once the finalised OHL route has been established, a site-specific Preliminary UXO Threat Assessment will be undertaken to determine if a detailed UXO desk study is required.

2.2.4 Mining

2.2.4.1 Coal Related Mining

According to the Coal Authority's interactive map [17], the vast majority of the corridor from Chesterfield to Dale Abbey is within a Development High Risk Area (DHRA). Remaining sections of the corridor south of Dale Abbey are not within a DHRA. Coal Authority guidance [18] defines DHRA's as areas containing 'one or more recorded coal mining related features which have the potential for instability or a degree of risk to the surface from the legacy of coal mining operations. The combination of features included in this composite area includes mine entries; shallow coal workings (recorded and probable); recorded coal mining related hazards; recorded mine gas sites; fissures and breaklines and previous surface mining sites.' Therefore, where there are no DHRA's, none of the above hazards are present, but where DHRA's are present, at least one of the above hazards is present. The same document also goes on to state 'new development in this defined area needs to demonstrate that the development will be safe and stable taking full account of former coal mining activities.'

The DHRA's from Chesterfield to Dale Abbey can be attributed to mine entries, past surface mining, past shallow coal workings, probable shallow coal workings and coal outcrops. The extent of the DHRA's and mine entries can be seen in Figure 2.2 below. A description of each of these hazards is provided below which has been informed from several Coal Authority documents.

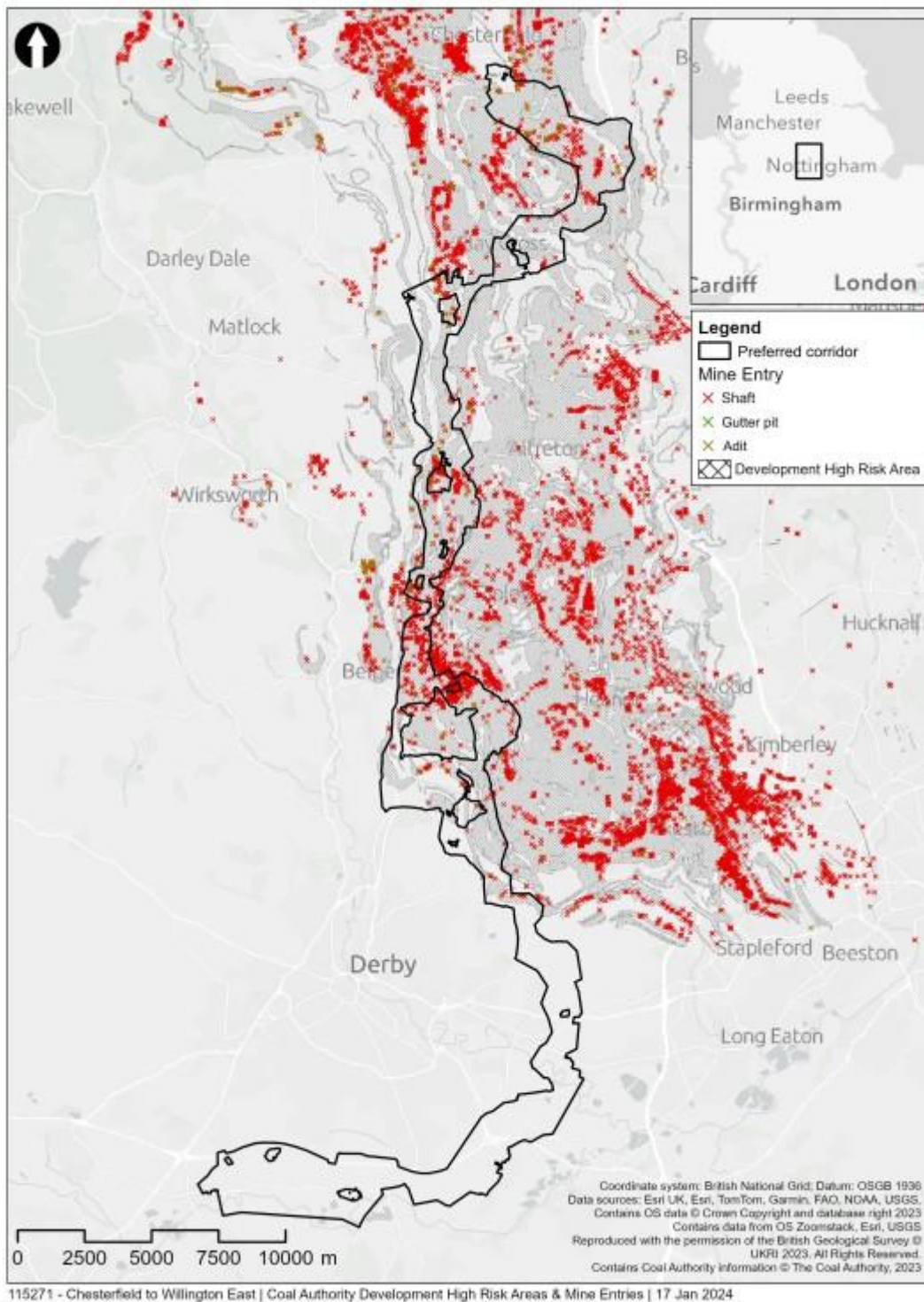
- Mine entries can be subcategorised into two types: shafts and adits. 'Mine shafts are vertical or near vertical entrances to a mine whereas adits are a walkable entrance to a mine as shown on plans held by the Coal Authority' [19]. As shown in Figure 2.3 below, the vast majority of mine entries within the corridor are mine shafts and are vertical or near vertical entrances, although adits are also present in less abundance. According to CIRIA's *Abandoned Mine Workings Manual* [12] 'old adits are often found blocked, either deliberately or with collapsed strata'.
- Surface mining areas, also known as opencast mining, 'denote an area of coal extracted by surface excavations in the past or are being excavated currently', and 'they do not necessarily reflect the extent of the excavation' [20]. According to CIRIA [12], 'exhausted surface mines were backfilled, often without systematic compaction and may be regarded as 'non-engineered'', and within the exposed coalfield in the Nottinghamshire/Derbyshire region there have been extensive opencast mining operations.
- Past shallow coal workings are 'all underground workings, or parts thereof, whose depth is 30 metres or less from the surface.' They 'do not have sufficient overlying strata therefore any movement has the potential to reach the surface and cause damage' [21].
- Coal outcrops 'illustrate a location where a workable coal seam is present at or close to the surface' [22].

The CIRIA document [12] states "the Nottinghamshire/Derbyshire coalfield has seen a large reduction in the number of working mines since the 1980s with the last operating mine closing in 2015. Many of the mines had multiple seam workings and were connected to adjacent mines, resulting in numerous vertical and lateral connections that influence the movement of both water and gas"; anticlinal folds in exposed coalfield areas can also influence the direction of mine water flow from outcrops. Finally, a case study to note is the approximate 100 subsidence incidents recorded between 1976 and 1989 in the Derbyshire part of the Peak District mining area, of which 70 were due to either shaft or stope collapses [12].

Several past studies have highlighted the closure of the numerous interconnected Collieries along coal outcrops has resulted in a build-up of water in the disused mine shafts [23] [24] [25] and in turn a migration of ground water to the east down dip of the area's strata [26] [27]. Indeed, several pumping stations in the past were established to prevent Collieries from flooding when neighbour Collieries to their west were being closed and their pumps switched off because of this migration [23]. In the adjacent South Nottinghamshire coalfield, groundwater levels are expected to rise and ultimately rebound to a level which may allow discharge onto the surface [26].

Although the study area is within the Derbyshire coalfield, a similar scenario may occur as the model of flooding is the same. Indeed, just outside the corridor at Williamthorpe, a borehole has seen an approximate 80m elevation rise in groundwater and the predicted time until surface discharge was about two years in time 2020 [28]. The possible increase of groundwater level leads to a reduction of in-situ effective stresses, in turn a decrease in bearing capacity, as well as an increased risk of slope instability. Furthermore, the presence of high-sulphate content mine water may result in an environment more aggressive for concrete than what is assessed based on ground investigation information collected before the rebound of mine water reaches the location of the foundations.

Figure 2.3: Coal Authority DHRAs and Mine Entries within the Corridor.



Source: Mott MacDonald. Created from Coal Authority data within ArcGIS Pro.

Coal Mining Report for Chesterfield substation

A coal mining report dated August 2023 submitted by the Coal Authority [29] has been obtained from the client and can be seen in Appendix F. The report's enquiry boundary is approximately a 0.25 km² area in the north of the corridor around the Chesterfield 400kV substation. The main findings of the report are as follows:

- 6no. past underground mining operations at depths ranging between 6 and 234m below ground level, operating between 1834-1945.
- There are probable unrecorded shallow workings.
- 6no. mine entries - four adits, two shafts. One adit was 'filled to an unknown specification in 1954'.
- 9no. mine plan catalogue numbers intersect with some, or all, of the enquiry boundary.
- 24no. coal outcrops within the enquiry boundary, 4no. coal outcrops ranging 5-34m away from the enquiry boundary.
- Geological fault recorded under or close to properties within enquiry boundary.
- 1no. coal mining subsidence claims within 50m of a property boundary within the enquiry boundary. The site is within an area of previous coal mining subsidence interest. The site 'requires further investigation and may influence your risk assessment. We recommend that you order the appropriate Coal Authority Subsidence Claims Report, which will include more information about the hazard'.
- Zero recorded mine gas sites within 500m. However, 'this does not mean that mine gas is not present within the vicinity.'*
- Conclusion of the report: '*Developers should be aware that investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that more detailed Gas Risk Assessment is undertaken by a competent assessor.*'

It is also noted '*if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.*'

2.2.4.2 Non-Coal Related Mining

A BGS 1km hex-grid [30] displaying hazard levels related to non-coal mining can be seen in Appendix G. The map shows the majority of the corridor has a low hazard but there are significant hazards southwest of Shirland and north/northwest of Aston-on-Trent.

Within the area classed as a significant southwest of Shirland, although there is not a large presence of non-coal related mining there are a few ceased quarries and gravel pits spread out sporadically. There is a lack of superficial strata present across the area with local alluvium and glacial till underlain by Pennine Lower Coal Measures Formation and Wingfield Flags sandstone. According to BGS GeoIndex [4], the mineral resource Brick Clay and Fire Clay is present in the area.

By Aston-on-Trent the bedrock is of Branscombe Mudstone Formation which according to the BGS Lexicon [5] has local gypsum/anhydrite present while the superficial deposits vary but

generally consist of silt, sand and gravel, and diamicton. There are three main clusters of ceased non-coal related mines including gypsum mines and workings, gravel pits, alabaster pits, plaster pits, brick and tile works, and other pits present within this area classed as a significant hazard. These are located northwest of Aston-on-Trent and at Bellington Hill, northeast of Aston-on-Trent. According to BGS GeoIndex [4], a few of these mines are identified to be shafts. Other mineral resources found in the area that lie within proximity to the identified mines relate to the superficial sand and gravel of glaciofluvial deposits located south-east of Chellaston.

2.2.5 Ground Stability Hazards

BGS GeoSure 5km hex-grid data [31] shows the risk of each ground stability hazard, as seen in drawings included in Appendix H.

The risk of each ground stability hazard is summarised as follows:

- Collapsible Ground: Low risk across the entire corridor.
- Running Sand: Low risk across the entire corridor.
- Soluble Rock: Low risk across the entire corridor.
- Compressible Ground: Significant risk north, east and south of Ripley. Low everywhere else.
- Landslides: Significant risk east of Crich. Vast majority of corridor has a Moderate risk.
- Shrink-Swell: Low risk from Chesterfield to Denby. Moderate risk from Denby to Willington.

2.2.6 Utilities and Services

Information from utility providers National Grid Electricity Transmission (NGET) and National Grid Electricity Distribution (NGED) has been provided by the client and is summarised below. Also summarised below is information on railways and solar farms from Google Earth [32], the Renewable Energy Planning Database [33] and Ordnance Survey OpenMap [34]. It should be noted that there is missing information on water utilities and BT services. A further investigation should be carried out to identify the presence of buried utilities and services.

2.2.6.1 National Grid Electricity Transmission (NGET)

Two OHLs are present within the corridor. The first is present in the north of the corridor and is a 275kV OHL that connects onto the existing Chesterfield substation. When exiting the existing Chesterfield substation, the OHL is connected to three towers which are all located within the site perimeter of the proposed New Chesterfield 400kV substation. It first appears north of Cock Alley before heading southeast towards Temple Normanton and then eventually eastwards Rylah. The second lies on the southern border of the corridor, first appearing north from Western-on-Trent before entering the corridor southwest of Twyford and then eventually connecting onto the current Willington East 400kV substation.

2.2.6.2 National Grid Electricity Distribution (NGED)

Two 132kV double OHLs are connected to the existing Chesterfield substation. One heads directly east out of the corridor, the other heads southeast toward Temple Normanton and then east towards Doe Lea before exiting the corridor. Another 132kV double OHL enters the corridor northwest of Cock Alley and terminates at a building 100m west of the existing Chesterfield substation's north-western corner. A further two 132kV double OHLs first appear within the perimeter of the proposed New Chesterfield 400kV substation, head southeast towards Corbriggs, exit the corridor, and temporarily reappear in the corridor east of North Wingfield.

Another 132kV double OHL slightly intersects the corridor west of Heanor before exiting the corridor. The same OHL re-enters the corridor west of Dale Abbey and heads south out of the

corridor. Another 132kV double OHL enters the corridor west of Dale Abbey and connects onto the aforementioned line that heads south out of the corridor.

Two double circuit 132kV OHLs which appear to have gantry connections into the eastern side of the Willington 400kV/132kV substation. Two single circuit 132kV OHLs which appear to have gantry connection into the eastern side of the Willington 400kV/132kV substation that originate from two different double circuit 132kV OHLs which enter the corridor south of Findern and south of the Mercia Marina. And a third double circuit 132kV OHL which stops short of the substation boundary and is likely to have an underground cable connection from a CSE Tower for termination into the substation.

A double 33kV OHL is within the northern tip of the corridor, originating east of the current Chesterfield substation and travels southeast towards Temple Normanton. A further five double 33kV OHLs are present between Clay Cross and Alfreton; the most southern of these forks into two single OHLs south of Shirland.

Four single and one double 33kV OHLs are between Alfreton and Denby. South of Denby there is one double 33kV OHL which exits the corridor south of Horsley before temporarily re-entering again southwest of Draycott. A further two double 33kV OHLs are located northeast of Aston-on-Trent.

There are also a large number of 11kV OHLs scattered throughout the entire corridor.

2.2.6.3 Railways

Although there are no railway stations within the corridor, seven railway lines are present. Two intersect south and east of Clay Cross; one exits the corridor immediately while the other continues south and exits south of South Wingfield. The third appears north of Denby Bottles and exits south of Coxbench, although this appears to be disused. The fourth can be found northwest of Draycott and the fifth northwest, north and northeast of Barrow upon Trent. The six and seventh lie northeast and north of Willington.

2.2.6.4 Solar Farms

There are two solar farms in the corridor. The first is northeast of Temple Normanton and is approximately 10.6 hectares. The second is north of Denby Village, near the Denby Pottery complex, and is approximately 2.8 hectares. There is also one solar farm on the border of the corridor east of Cock Alley which is approximately 9.5 hectares.

Two other developments should also be noted. A 68-hectare solar farm is currently awaiting construction northeast of Winsick [35], and in November 2023 an environmental impact assessment has been submitted for a 133-hectare solar farm between Denby and Smalley [36].

2.3 Sensitive Land Uses

2.3.1 Site of Specific Scientific Interest (SSSI)

DEFRA *Magic Map* [15] displays one SSSI within the boundaries of the corridor which is a 1.79-hectare area northwest of Morley Smithy.

2.3.2 Listed Buildings & Scheduled Monuments

A total of 82 listed buildings at grade I, II or II*, as well as 7 scheduled monuments have been identified within the corridor. Their names, grade and location can be found in Appendix I.

2.3.3 Industrial Sites & Areas of Interest

Table 2.2: Summary of Industrial Sites/Areas of Interest

Site Name	Grid Reference	Approximate Area (hectares)	Description and Remarks
Horsley Lodge	SK 38944 43860	66	Multi-purpose complex, namely a country hotel and 18-hole golf course
Morley Hayes	SK 40124 42159	Unknown	Multi-purpose complex, namely a luxury hotel and 18-hole golf course
Tarmac Quarry and Mortar Plant	SK 42699 31524	3	Mortar plant consists of one building approximately 390m ²
Tarmac Swarkestone Sand and Gravel Quarry	SK 34372 28440	12.8	Working aggregate quarry delivering to customers in the Barrow-on-Trent area

3 Ground Engineering Inputs to Study Area Screening

3.1 Heatmapping

A summary of how the key in-ground risks and constraints that will affect the OHL route and construction of OHL towers are identified in the sections below. These have been assessed and ranked in the heatmapping exercise provided in Table 3.2, with a description of the heatmapping ranking system applied provided in Table 3.1. Rankings have been based on the associated risk for shallow OHL tower foundations at this stage. The corridor heatmap drawing displaying area constraint ranking can be seen in Appendix J.

Table 3.1: Heatmapping Ranking.






1		Very low constraint to development
2		Low constraint to development
3		Moderate constraint to development
4		High constraint to development
5		Very high constraint to development

Table 3.2: Assessment of In-Ground Constraints in Heatmapping.

Parameter Assessed	Constraint in Heatmap?	Comment
Artificial Ground	Yes	<p>Artificial ground are areas of man-made additions/modifications to the pre-existing land surface. The areas outlined in the heatmap are defined by those shown on BGS GeoIndex. However, it should be noted that these areas are approximate, and it is likely there are unknown additional areas not shown on BGS mapping and therefore, not included within the heatmap.</p> <p>Artificial ground poses risks of ground subsidence, poor bearing capacity, uplift (tension) issues and contamination. The latter is a risk to human health, wildlife, surrounding ecosystems, as well as the degradation of tower foundations, leading to insufficient supporting capabilities.</p> <p>The large presence of artificial ground is most likely explained by the corridor's surface coal mining activity, as shown in Figure 2.2. For reasons previously discussed in <i>Section 2.2.1</i>, the likely nature of the corridor's artificial ground is highly variable fill, likely poorly compacted and of unknown properties, with possible voids. It is therefore considered a high risk, and has been ranked 5 – very high constraint.</p>
Landfill Sites	Yes	<p>Landfill sites pose risks of ground subsidence, poor bearing capacity, uplift (tension) issues, and contamination. They have been ranked 5 – very high constraint due to risk of contaminated land and non-suitable founding material.</p> <p>There are two permitted waste/authorised landfill sites in the area, the first being south of Tupton Hall School and the second south of Barrow upon Trent.</p>
Non-coal related Mining Hazard	No	<p>BGS 1km hex-grid data displays parts of the corridor with a significant risk of non-coal related mining hazards. The risks associated with this hazard would be similar to the coal related mining hazards such as mine entries, development high risk areas and artificial ground. Therefore, areas within a significant risk of non-coal related mining hazards would be ranked 4/5 – high/very high constraint; however, due to the format of this data</p>

Parameter Assessed	Constraint in Heatmap?	Comment
		(i.e., BGS 1km hex) and the difficulties in defining the actual location with the information currently available, this information is not displayed on the heatmap. Refer to <i>Section 2.2.4.2</i> for more information. This risk should be investigated further in the next phases of the design.
Mine Entries	No	<p>Old mine shafts that remain untreated are susceptible to collapse, often resulting in significant subsidence. It is not possible to predict the timing of any potential collapse or surrounding ground movements, therefore, any old mine shafts should be considered as potential geotechnical hazards [12].</p> <p>In the majority of instances, no visible signs of the mine entry may exist, and records are often imprecise in terms of mine entry location. Where possible, their locations should be proved with a site walkover [12]. However, even in a site walkover it may not be obvious to identify the presence of a shaft, as often they have been infilled and with time they might have been covered by vegetation or other obstructions.</p> <p>Transmitted or direct disturbance from a site investigation or construction of nearby activities are potential triggers for the collapse of a mine shaft [12].</p> <p>It should be noted guidance from the Coal Authority states that for any intrusive works that will disturb or enter any coal seams, coal mine workings or coal mine entries (such as ground investigations, excavations or piling activities), a permit from the Coal Authority must be obtained [37].</p> <p>Areas on top of or within the immediate vicinity of mine entries would be considered 5 – very high constraint, however, due to the format of this data it has not been possible to clearly display this information on the heatmap. Figure 2.3 shows the approximate locations of mine entries within the preferred corridor, and their associated risks are detailed in the <i>Geotechnical Risk Register</i>.</p>
Coal Authority Development High Risk Areas (DHRA)	Yes	<p>DHRAs contain one or more recorded coal mining related features which have the potential for instability or a degree of risk to the surface from coal mining operations. These features are outlined in <i>Section 2.2.4.1</i>. The vast majority of the corridor from Chesterfield to Dale Abbey is within a DHRA. All areas categorised within a DHRA are ranked as 4 – high constraint.</p> <p>According to government guidance [37], if a site lies within a Coal Authority DHRA, planning applications will require a Coal Mining Risk Assessment (CMRA) to identify coal mining features present and the risks these pose. It should also set out any investigatory works and the remedial or mitigation measures required. The site must be deemed it is or can be made safe and stable for the proposed development. If the risks cannot be discounted, then further investigation may be necessary.</p>
Topography	Yes	Slope angles above 20% gradients have been categorised as 4 – high constraint, due to risk of landslide/unstable ground.
Ground Stability Hazards	No	The corridor's ground stability hazards have been in <i>Section 2.2.5</i> . Any moderate and significant risk areas are to be mitigated as outlined in the <i>Geotechnical Risk Register</i> . They are not considered a significant constrain to construction, and due to the format of this data (i.e., BGS 5km hex), this information is not displayed on the heatmap.
Designated Aquifers and Source Protection Zones (SPZs)	No	The corridor's designated aquifers and SPZs have been outlined in <i>Section 2.2.2</i> . Neither are considered a significant constraint to construction, and are, therefore, not included within the heatmap. However, mitigative measures may be required for intrusive ground investigations and construction activities within principal aquifers.
UXO	No	The corridor's UXO risk has been outlined in <i>Section 2.2.3</i> . It is not considered a significant constraint to construction and, therefore, not included within the heatmap. Once the finalised OHL route has been established a site-specific Preliminary UXO Threat Assessment will be undertaken to determine if a detailed UXO desk study is required.

4 Geotechnical Risk Register

Ground risks are a common cause of cost and programme over-runs on projects, impacting both the design and construction phases and affecting health and safety aspects. It is, therefore, essential to obtain as much information as possible on the ground conditions to identify the potential ground risks and allow these to be 'designed out' or reduced by the mitigation measures.

The methodology is based on advice given in the document *Managing Geotechnical Risk: Improving Productivity in UK Building and Construction* (Clayton 2001) and is detailed in *Section 4.1*. The geotechnical risk register should be considered a live document and updated throughout the course of the project. It is incumbent on all parties involved in the project to advise the other members when the risks change.

A preliminary geotechnical risk register is presented in Table 4.3 based on a high-level review of the corridor's expected ground conditions. The risk register will be revised as part of the *Geotechnical and Geoenvironmental Preliminary Risk Assessment* once a finalised route has been determined.

4.1 Geotechnical Risk Register Methodology

Various threats are identified and the potential consequences of these occurring are described. The risk assessment is qualitative and the various threat are assessed using the following criteria:

- Cost
- Programme
- Health and Safety
- Operations

The risk is derived by considering the impact and likelihood for each threat and opportunity. Both the impact and likelihood have been assessed using a scale of 1 to 5, corresponding to very low to very high for impact and improbable to very likely for likelihood, respectively. These ratings are summarised in Tables 4.1 and 4.2.

Table 4.1: Hazard Impact Severity.

	Impact Severity	Cost	Programme	Health and Safety	Operations
1	Very Low	Negligible	Negligible	Negligible	Negligible
2	Low	1% budget	5% delay	Minor injury	Minor incident
3	Medium	10% budget	12% delay	Major injury	Incident requiring management input
4	High	20% budget	25% delay	Fatality	Incident leading to interruption to supply
5	Very High	50% budget	50% delay	Multiple fatalities	Incident leading to major disruption

Table 4.2: Hazard Likelihood Index.

Likelihood		Probability
1	Improbable	< 1%
2	Unlikely	> 1%
3	Possible	> 10%
4	Probable	> 50%
5	Very likely	> 90%

The risk score is calculated by multiplying the impact score by the likelihood score, giving the scores shown in Table 4.3.

Table 4.3: Risk Level Matrix.

		Impact Severity				
		1	2	3	4	5
Likelihood	1	L	L	L	M	M
	2	L	L	M	M	H
	3	L	M	M	H	H
	4	M	M	H	H	H
	5	M	H	H	H	H

Table 4.4: Design Team Actions.

Risk Level	Health & Safety Risks	Technical/Commercial/Operation Risks
Low	<ul style="list-style-type: none"> - Check that risks cannot be eliminated or further reduced by design amendments. - Proceed with design and construction. 	<ul style="list-style-type: none"> - Check cost/benefit of potential mitigations to reduce risks. - Proceed with and construction.
Medium	<ul style="list-style-type: none"> - Seek alternative designs and/or mitigations that eliminate or reduce risks. - Discuss with client and other stakeholders. - Convey residual risks via risk register. 	<ul style="list-style-type: none"> - Consider alternative designs and/or mitigations that eliminate or reduce risks. - Discuss with client and other stakeholders. - Convey residual risks via risk register.
High	<ul style="list-style-type: none"> - Amend design to reduce risk or seek alternative designs. - Critically review whether risk can be mitigated during construction. - Discuss with client and other stakeholders. - Convey residual risks via risk register. 	<ul style="list-style-type: none"> - Consider alternative designs and/or mitigations that eliminate or reduce risks. - Critically review whether risk can be mitigated during construction. - Discuss with client and other stakeholders. - Convey residual risks via risk register.

4.2 Geotechnical Risk Register

Table 4.5: Preliminary Geotechnical Risk Register.

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
Artificial Ground	<ul style="list-style-type: none"> - Potential contamination resulting in delay to programme and cost impact. - Instability of temporary excavations. - Obstructions resulting in delay and additional measures required to overcome during ground investigation and construction. - Unsuitable material for re-use without processing and/or requirement for disposal off-site. - Poor mechanical properties resulting in excessive settlements, bearing capacity and uplift issues. 	5	3	High	<ul style="list-style-type: none"> - Ground investigation to determine nature, thickness and properties of artificial ground along finalised route and/or finalised OHL tower location. - Geo-environmental testing to classify materials in advance. Early consultation with regulatory bodies, develop remediation strategy if required. - Position of towers to avoid Artificial Ground being located at the location of the foundations, where feasible. - Allowance for any removal and disposal of artificial ground below finalised OHL tower location and allowance for import of replacement suitable material. - Allowance for piled foundations or ground improvement. - Ground investigation factual report to be included in construction tender documentation. 	2	3	Medium
Identified area permitted waste/authorised landfill site	<ul style="list-style-type: none"> - Potential contamination resulting in delay to programme and cost impact. - Instability of temporary excavations. - Obstructions resulting in delay and additional measures required to overcome during ground investigation and construction. - Unsuitable material for re-use without processing and/or requirement for disposal off-site. - Potential for ground gas. - Unsuitable conditions for foundations. - Poor mechanical properties resulting in excessive settlements, bearing capacity and uplift issues. 	2	3	Medium	<ul style="list-style-type: none"> - Ground investigation to determine nature of materials along finalised route and/or finalised OHL tower location, including ground gas monitoring. - Geo-environmental testing to classify materials in advance. Early consultation with regulatory bodies, develop remediation strategy if required. - Allowance for removal of all material associated with the permitted waste/landfill below finalised OHL tower location and allowance for import of replacement suitable material. - Allowance for any excavated permitted waste/landfill material to be disposed off-site. - Ground investigation factual report to be included in construction tender documentation. - Method statement to allow for risk of contaminated soil/groundwater and ground gas. 	1	2	Low
Presence of quarries	<ul style="list-style-type: none"> - Presence of artificial ground, poorly compacted fill material potentially contaminated and degradable (possible landfill) or voids - Excessive total/differential settlements of shallow foundations - Instability of temporary excavations 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation at proposed tower locations to determine ground profile and geotechnical parameters. - Carry out excavation monitoring during the construction stage. - piled foundations or mining remediation (e.g., grouting) may be required. 	1	3	Low

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
Compressible and low bearing capacity alluvial deposits with high phreatic surface	<ul style="list-style-type: none"> - Excessive total/differential settlement of OHL towers. - Bearing capacity failure - Instability of temporary excavations. - Unsuitable material for re-use and/or requirement for disposal off-site. - High phreatic surface may be encountered in alluvial soils which may require discharge and management during ground investigation and construction works, and also influence foundation design. 	5	3	High	<ul style="list-style-type: none"> - Ground investigation to determine thickness of alluvial deposits along finalised route and/or finalised OHL tower location. Determine geotechnical parameters to assess risk of compressible soils. - Determine design parameters and produce a detailed settlement analysis. - Contractor to carry out design of temporary works including design of support and stability analysis of any required excavations. - Allowance for piled foundations or ground improvement if within depth of influence of foundations. - Allowance for additional time and cost to complete ground investigation works if boreholes need to advance beyond scheduled depths due to impact higher phreatic surface or more onerous ground conditions than anticipated. 	1	2	Low
Natural obstructions within till/diamicton deposits	<ul style="list-style-type: none"> - Presence of cobbles or boulders resulting in difficulty advancing exploratory holes or excavation works. - Increased cost and programme delay. 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation along finalised route to confirm ground profile and assess risk of obstructions. - Risk to be communicated to Main Contractor and be addressed in their Method Statement. - Ensure risk is included in ground investigation scoping documents and that the ground investigation contractor provides appropriate equipment/tools during fieldwork. - Make allowances for chiselling and hole relocation costs and an overall delay in the ground investigation timeline. 	2	2	Low
Presence of shallow bedrock	<ul style="list-style-type: none"> -Impact on excavations and GI causing additional costs and delays. -Impact construction of temporary works (i.e., cut and fill operations for construction of working platforms). -Impact on foundation design and construction methodology. 	2	3	Medium	<ul style="list-style-type: none"> - Ground investigation to confirm depth of head of rock profile - Ground investigation scoping and budgeting to include time allowance and allowance for chiselling/rotatory follow-on. - Allowance for suitable foundation design and construction methodology (e.g., rock anchor foundations). 	1	3	Low
Unknown underground utilities and services in arable and pastoral land, including privately-owned pipelines and cables	<ul style="list-style-type: none"> - Temporary loss of utility/service. - Cost of repair and programme delays, including the relocation of exploratory holes. - Possible injury during intrusive works on site (ground investigation and construction). 	3	3	Medium	<ul style="list-style-type: none"> - Conduct detailed desk study and gather all known service records to confirm location of all known buried utilities and services. - Clearly communicate findings of the desk study to the contractor to ensure no information is lost or misunderstood. - Carry out GPR survey to identify and locate existing services. - Contractor to check exploratory hole locations for buried services: hand dug inspection pit and CAT scanning. - Compliance with HSG47: Avoiding Danger from Underground Services. 	1	3	Low

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
					<ul style="list-style-type: none"> -Towers to be positioned away from the location of known services where practicable. -Diversion, modification, disconnection or decommissioning of services by or under watching brief of asset owners to accommodate New-Build OHL construction. -Allowance for additional temporary works may be required for service protection (e.g., pre-cast protection slabs). 			
Presence of field drains in arable and pastoral land	<ul style="list-style-type: none"> - Programme delays and relocation of exploratory holes. - Seepage into excavations. - Diversion and reinstatement requirements. - Differential settlements 	3	2	Medium	<ul style="list-style-type: none"> - Request drainage plans from landowners prior to commencement of fieldwork. - Agreed methodology for reinstatement with landowners. - Contingency for managing damaged field drains and water inflows. 	1	2	Low
Proximity of OHLs	<ul style="list-style-type: none"> - Space constraint on site investigation/construction equipment access. - Service strike during ground investigation/construction works, leading to the temporary loss in the utility, cost of repair, programme delays and H&S risk. 	3	4	Medium	<ul style="list-style-type: none"> - Early collaboration with utility provider to arrange OHL to be temporarily switched off during site investigation/construction. - All works to be carried out in accordance with HSE Guidance Note GS6: Avoiding Danger from Overhead Power Lines (4th Edition). - Skill and care while executing in-ground activities. - Assessment of planned access routes for site investigation and construction. -Review of relevant specification and suitability of required plant. 	1	3	Low
Corridor within a Coal Authority Development High risk area	<ul style="list-style-type: none"> - Ground stability and mining-related hazards are present which can result in issues related with project construction and delivery See below for related hazards. 	4	4	High	<ul style="list-style-type: none"> - A coal mining risk assessment (CMRA) is required if a site is within a development high risk area including a mitigation strategy. The site must be demonstrated to be safe and stable. - If the risks to the development cannot be discounted, details of proposed intrusive works must be set out within the CMRA, and a Coal Authority permit is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries. - Consultation and services are available at a cost from the Coal Authority for further detail and advice if required. 	2	4	Medium
Construction activity on top of or within the vicinity of mine entry points of either shafts or adits	<ul style="list-style-type: none"> - Site investigation and/or construction works causing collapse of mine shaft, leading to significant subsidence and ground movement, as well as cost of repair and programme delays. - Requirement for repair, replacement or relocation of OHL tower if structural damage is caused due to mine shaft collapse following OHL construction. 	4	5	High	<ul style="list-style-type: none"> - Conduct a detailed desk study including a coal mining risk assessment (CMRA). This will entail past mining activity and location of mine shafts along finalised route. It is recommended for the desk study report with a CMRA be produced in future phases of design once the route is finalised. See the CIRIA C758 document for information to be included in the desk study. A field reconnaissance should also be included carefully examining the site. 	2	4	Medium

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
	- Accidental entry can result in injury or death. There is the potential of drowning, suffocation or poisoning by mine gas/explosion during intrusive works.				- A Coal Authority permit is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries. - Avoid site investigation/construction works on top or within the vicinity of all known mine entry points and their mine entry zone of influence. A Mine Entry Interpretive Report and/or consultancy from the Coal Authority may be considered as mine entry plans are held by the Coal Authority. Alternatively, a CON29M report is available, which may be more suitable, and includes an investigation into past, present and future coal mining, mine entries, coal mining subsidence, mine gas and coal mining hazards. - Potential treatment of coal mine entries for ground stability purposes. Where treatment is proposed, a separate agreement with the Coal Authority licensing department is required.			
Construction activity on top of or within the vicinity of past shallow coal mining	- Presence of poorly compacted and potentially contaminated fill material. - Presence of voids and areas of subsidence. - Excessive total/differential settlements of shallow foundations or insufficient bearing capacity. - Instability of temporary excavations.	3	4	High	- Conduct detailed desk study and a CMRA to demonstrate the site will be safe and stable taking full account of former coal activities. - A Coal Authority permit is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries. - Ground investigation at finalised tower locations to determine ground profile and geotechnical parameters. - Detailed foundation design to accommodate for the ground profile and mitigate total/differential settlement issues. - Allowance for piled foundations and mining remediation if required.	2	3	Medium
Identified areas of significant risk to non-coal related mining hazards	- Potential contamination resulting in delay to programme and cost impact. - Instability of temporary excavations. - Obstructions resulting in delay and additional measures required to overcome during ground investigation and construction. - Unsuitable material for re-use without processing and/or requirement for disposal off-site. - Presence of poorly compacted and potentially contaminated fill material. - Presence of voids and areas of subsidence. - Excessive total/differential settlements of shallow foundations or insufficient bearing capacity. - Instability of temporary excavations.	3	4	High	- Ground investigation to determine nature, thickness, and properties of the ground profile along finalised route and/or finalised OHL tower location. - Geo-environmental testing to classify materials in advance. Early consultation with regulatory bodies, develop remediation strategy if required. - Position of towers to avoid significant risk areas at the location of the foundations. - Allowance for any removal and disposal of artificial ground below finalised OHL tower location. - Allowance for imported engineered fill material to enable construction and supplement suboptimal artificial ground removed from site. - Ground investigation factual report to be included in construction tender documentation.	2	3	Medium

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
					<ul style="list-style-type: none"> - Detailed foundation design to accommodate for the ground profile and mitigate total/differential settlement issues. - Allowance for ground improvement and/or piled foundations. 			
Presence of unmapped and unknown mine entries and past shallow coal mining; mining records are also commonly incomplete and unreliable	<ul style="list-style-type: none"> - Unrecorded mine entries which are not visible at surface. - Site investigation and/or construction works causing collapse of mine shaft, leading to significant subsidence and ground movement, as well as cost of repair and programme delays. - Mine shaft collapse after OHL tower construction has been finalised, leading to structural damage requirement of repair. - Presence of poorly compacted and potentially contaminated fill material. - Presence of voids and areas of subsidence. - Excessive total/differential settlements of shallow foundations or insufficient bearing capacity. - Instability of temporary excavations. 	3	4	High	<ul style="list-style-type: none"> - Ground investigation to determine if there is a presence of unmapped and unexpected mine entries and/or past shallow coal mining with the appropriate safety measures in place. - A Coal Authority permit is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries. - Monitor the excavations during the construction stage and be aware of the potential for unexpected mine entries and/or past shallow coal mining being present. - If an unrecorded mine entry is found, all work must immediately stop and the appropriate safety measures and procedures followed. 	2	4	Medium
The potential presence of mine gas	<ul style="list-style-type: none"> - Unless an abandoned mine is completely saturated with water it will contain a gaseous atmosphere. This can potentially be toxic, asphyxiant, flammable, carcinogenic or a combination of these. There is also the potential for the gas to be explosive. Gases can include methane, carbon monoxide, hydrogen sulphide, carbon dioxide, radon and stythe (blackdamp). - Collapse of ground, engineering works, or the failure of manmade seals may result in a pathway for gas to flow. - Combustion can occur from drilling abandoned coal workings with air flush. - Explosion during investigation works or construction activity. H&S risk, programme delay, redesign, additional cost 	3	5	High	<ul style="list-style-type: none"> - An immediate response plan must be in place to a reported gas emission involving securing the site. - Ground investigation to include gas monitoring - Monitoring instruments should be installed at proposed development positions. - A Coal Authority permit is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries. To mitigate investigation risks a gas risk assessment must be carried out. - Adopt appropriate methodology during Ground Investigation. - Coal Mining Risk Assessment to include gas risk assessment 	2	4	Medium
Poorly backfilled mine workings without systematic compaction, particularly with shallow/open cast	<ul style="list-style-type: none"> - Risk of ground stability/collapse and potential for long term settlement and insufficient bearing capacity. - Contamination associated with previous landfill. - Ground gas. 	3	4	High	<ul style="list-style-type: none"> - An investigation into mine working locations, closure date and backfilling details if available - Ground investigation along finalised route to confirm ground profile, geotechnical properties and geo-environmental assessment carried out and presence of ground gas. 	2	3	Medium

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
mines; excavation void used for landfill					<ul style="list-style-type: none"> - Allow for ground improvement and contamination mitigation measures if required. - Allow for possible requirement of piled foundations. 			
Fault reactivation during mining subsidence	<ul style="list-style-type: none"> - Fault reactivation can lead to ground deformation and potential risk of damage to land and structures located near fault outcrops. - Reduced bearing capacity, potential for mine gas migration, and potential of excessive differential settlement. - Variable ground conditions and rockhead. 	3	4	High	<ul style="list-style-type: none"> - Locate structures away from the features if possible. - Carry out a CMRA to assess potential influence of faults on ground stability before development with respect to residual, delayed or previous reactivation. - If an unrecorded or 'blind fault' subjected to mining becomes exposed such as a deep engineering excavation or trench, a specialist/suitably qualified person should inspect. - Conduct a site investigation to assess potential hazards and geotechnical constraints associated with faulting and the respective level of risk. - Carry out a reconnaissance walkover to examine the location and characteristics of the fault. - Carry out a ground investigation or non-invasive geophysical study to accurately establish the position of the fault and the area of influence. - Use an appropriate development stand-off zone. - Allow for pile foundations if shallow fault and high risk of differential settlement are present. 	2	4	Medium
Water pollution from mining	<ul style="list-style-type: none"> - Sulphide minerals can cause mine water pollution to ground water and surface waters which can have knock-on effects (contamination of aquifer or surface water, concrete aggressive environment). 	3	4	High	<ul style="list-style-type: none"> - Carry out a detailed geo-environmental desk study to assess contamination hazards. - Ground investigation to assess potential contamination, including soil and groundwater sampling and testing. - Allowance for Pollution Prevention Measures. - Removal of contaminated ground water if required during construction phase. 	2	4	Medium
Mine water outbursts and flooding	<ul style="list-style-type: none"> - Damage to infrastructure and/or the environment from sudden discharge of large volumes of water from abandoned mine workings. - Mine collapse. - Contamination of aquifer and surface water. - Slope instability. 	3	4	High	<ul style="list-style-type: none"> - Consultation from the following organisations: the Coal Authority, the Environment Agency, SEPA, NRW and BGS. - Carry out a ground investigation to assess groundwater conditions and potential contamination. - Carry out groundwater monitoring. - Allow for mine water treatment. - Implementation of an Emergency Response Plan during the construction phase. 	2	4	Medium

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
Sulphate content within numerous bedrock units	<ul style="list-style-type: none"> - High sulphate content causing corrosive damage to buried concrete and metallic elements. - Potential for structural damage and ground movement/failure. 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation to determine chemical properties of the high-sulphate lithologies. - Design parameters for concrete aggressivity. - Ensure appropriate concrete class is adopted during design in accordance with BRE SD1. 	1	2	Low
Frost susceptibility of near surface silty and fine sand lithologies	<ul style="list-style-type: none"> - Shallow foundations exposed to repetitive freezing and thawing conditions. - Concrete deterioration and failure. - Softening of formation material, causing excessive settlement. 	3	3	Medium	<ul style="list-style-type: none"> - Detailed foundation design to consider weather conditions throughout the entire year. - Depth of foundations to be appropriate as to not experience damage from seasonal changes in the weather (i.e., founded below freeze-thaw zone). 	1	3	Low
Identified areas of significant risk to compressible ground	<ul style="list-style-type: none"> - Excessive total/differential settlement of OHL towers or insufficient bearing capacity. - Instability of temporary excavations. - Unsuitable material for re-use and/or requirement for disposal off-site. - Unsuitable material for foundations. 	3	4	High	<ul style="list-style-type: none"> - Ground investigation to determine thickness of compressible ground along the finalised route and its geotechnical parameters. - Ground investigation contractor to carry out the design of temporary works including the design of support and stability analysis of any required excavations. - Allowance for piled foundations or ground improvement if the compressible ground is within the depth that may affect shallow foundations. 	2	3	Medium
Identified areas of moderate risk to shrink-and-swell soils	<ul style="list-style-type: none"> - High-plasticity soils resulting in potential soil contraction/expansion due to changes in moisture content. - Potential expansion in soils when overburden is removed. - Ground movement and structural damage to the foundations. 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation along finalised route to confirm ground profile and determine geotechnical parameters. - Assessment of shrink-and-swell potential. - Detailed design including settlement analysis. - Allowance for piled foundations or ground improvement if the shrink-swell soils are within the depth that may affect shallow foundations. 	2	2	Low
Presence of faults in geology	<ul style="list-style-type: none"> - Variable ground conditions and bedrock level, with presence of de-structured rock. - Reduced bearing capacity and potential of excessive differential settlement. 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation to confirm ground profile and determine geotechnical parameters. - Allowance for piled foundations if the faults are shallow and result in a high risk of differential settlements. 	2	2	Low
Shallow groundwater	<ul style="list-style-type: none"> - Water ingress into excavations leading to destabilisation disruption to site works resulting in cost impact and programme delay. - Low in-situ effective stress with effect on allowable bearing capacity. 	3	3	Medium	<ul style="list-style-type: none"> - Ground investigation with groundwater monitoring to determine phreatic surface where appropriate. - Ground investigation contractor to conduct temporary works design including the design of any necessary excavation support and stability analysis. - Contractor to allow for control of groundwater inflows using a cut-off and suitable drainage. - Design to consider appropriate groundwater level. 	1	2	Low

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
Identified areas of principal aquifers	<ul style="list-style-type: none"> - Increased groundwater flow through preferential pathways resulting in subsequent instability of excavation. - Ground investigation and/or construction works draw contaminants into underlying strata. - Programme delays and cost impact while mitigation measures are put in place. 	3	4	High	<ul style="list-style-type: none"> - Ground investigation including groundwater monitoring and permeability testing. Consider construction methodology based on groundwater conditions. - Detail the aquifer protection measures in the ground investigation design. - Develop a construction strategy to eliminate the risk. 	2	3	Medium
Proximity of proposed construction to existing structures and infrastructure	<ul style="list-style-type: none"> - Stringent noise and vibration limits imposed. - Cost and programme impact. - Complaints from surrounding residents. - Constraint on access for ground investigation/construction activities. - Damage to existing assets. 	3	2	Medium	<ul style="list-style-type: none"> - Early consultation with the planning department of the local council and regulatory bodies, as well as with residents who may be affected by the noise and access of equipment. - Fieldworks to try and minimise noise and vibration in vicinity to particularly sensitive areas. - Noise and vibration monitoring may be required depending on location and type of activities to be carried out. 	2	2	Low
Flooding	<ul style="list-style-type: none"> - Flood water from the identified flood risk zones affecting construction, foundation design and the timings of the programme. 	2	3	Medium	<ul style="list-style-type: none"> - Carry out the appropriate measures for flood protection or relocation to avoid or minimise impact. 	2	2	Low
Unexploded Ordnance (UXO)	<ul style="list-style-type: none"> - Serious injury or death during intrusive works on site (Ground Investigation and Construction). 	3	4	High	<ul style="list-style-type: none"> - Online UXO risk map indicates a low-risk zone in terms of World War II bombing densities, however, the map indicates several strategic targets may be encountered within the corridor such as decoy and industry sites. -Engage with a UXO specialist contractor. - Carry out a Preliminary UXO Threat Assessment once the final OHL route has been determined and implement any mitigation measures recommended. -Allowance for intrusive and/or non-intrusive surveys (e.g., use of magnetometers) - Watching brief by a specialist UXO engineer during excavation works in high-risk classification areas, etc). - Adopt best practice, due skill and care in executing the ground investigation and in-ground activities. 	1	3	Low
Increased groundwater levels from disused mine shafts	<ul style="list-style-type: none"> - Reduction of in-situ effective stresses leading to decreased bearing capacities resulting in foundation subsidence which requires remediation measures. - Increase risk of slope instability resulting in ground movements and the requirement of foundation remediation. - Migration of contaminated water in aquifers and surface water. 	3	4	High	<ul style="list-style-type: none"> - Ground investigation with groundwater monitoring to determine the phreatic surface over the finalised OHL route. - Foundation design to be informed by the ground investigation's groundwater monitoring data with the possible increase of groundwater level over time to be accounted for. 	3	2	Medium

Hazard	Consequence	Likelihood	Severity	Risk	Risk Control Measure	Likelihood	Severity	Risk
	- Potential for concrete aggressivity more onerous than initially estimated.			High				Medium

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Appendix

A: Geomorphological Designations

B: Flood Risk Map

C: Geology

C.1: Bedrock Geology and Faults

C.2: Superficial Geology

C.3: Superficial Geology Thickness Coverage

C.4: Superficial Maximum Thickness

C.5: Superficial Mean Thickness

C.6: BGS Map Sheet 125 Cross-Section

C.7: BGS Map Sheet 112 Cross-Section

D: Boreholes and Conceptual Ground Model

D.1: Available BGS Historical Boreholes within the Corridor

D.2: Borehole Records Locations

D.3: Borehole Records Data

D.4: Conceptual Ground Model

E: Artificial Ground and Landfill Sites

F: Coal Authority Mining Report around Chesterfield Substation

G: BGS 1km Hex-Grid Non-Coal Mining Hazards

H: BGS GeoSure 5km Hex-Grid Ground Stability Hazards

I: Listed Buildings and Scheduled Monuments

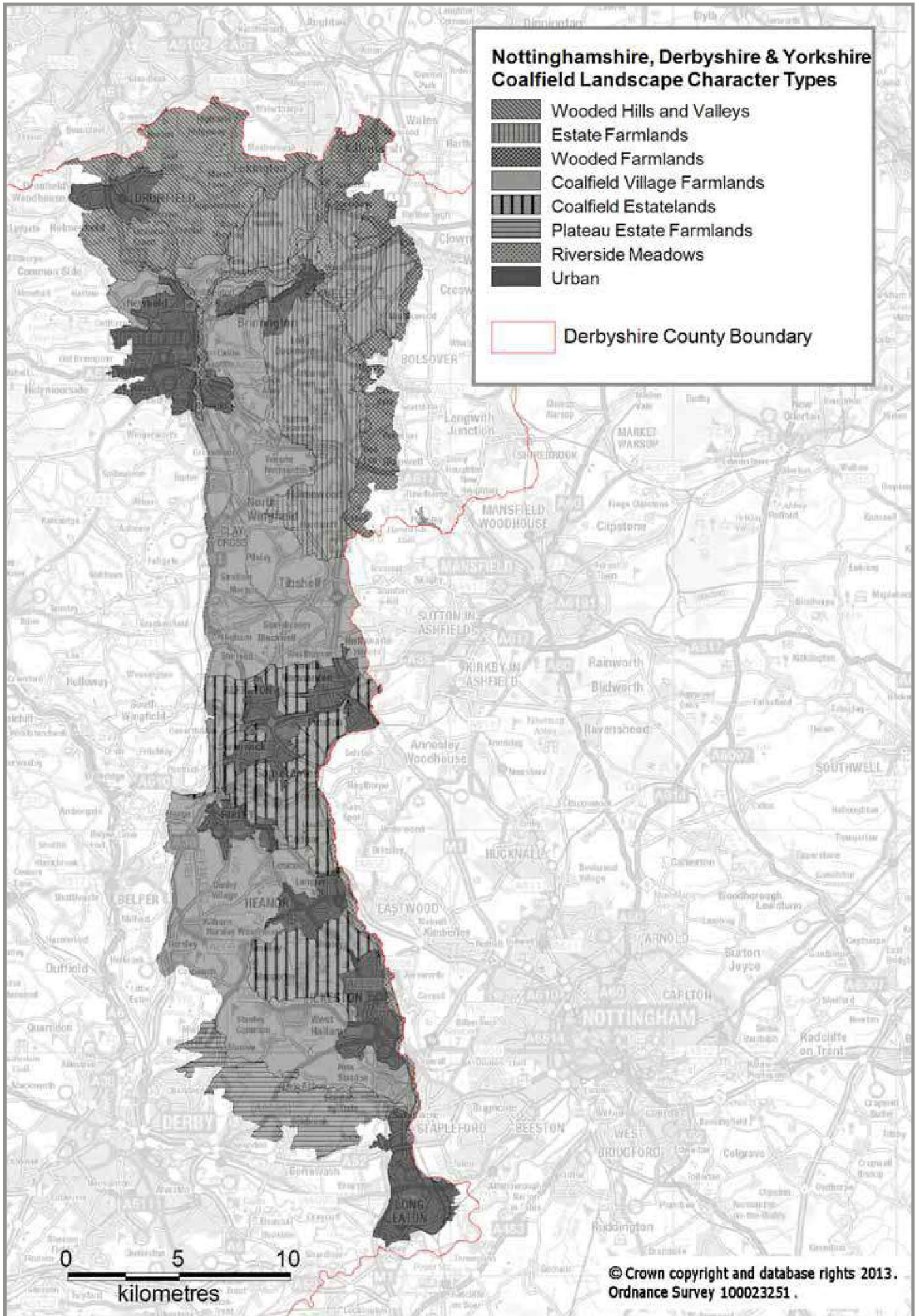
J: Corridor Heatmap

A. Geomorphological Designations

Nottinghamshire, Derbyshire & Yorkshire Coalfield Landscape Character Types

-  Wooded Hills and Valleys
-  Estate Farmlands
-  Wooded Farmlands
-  Coalfield Village Farmlands
-  Coalfield Estatelands
-  Plateau Estate Farmlands
-  Riverside Meadows
-  Urban

 Derbyshire County Boundary




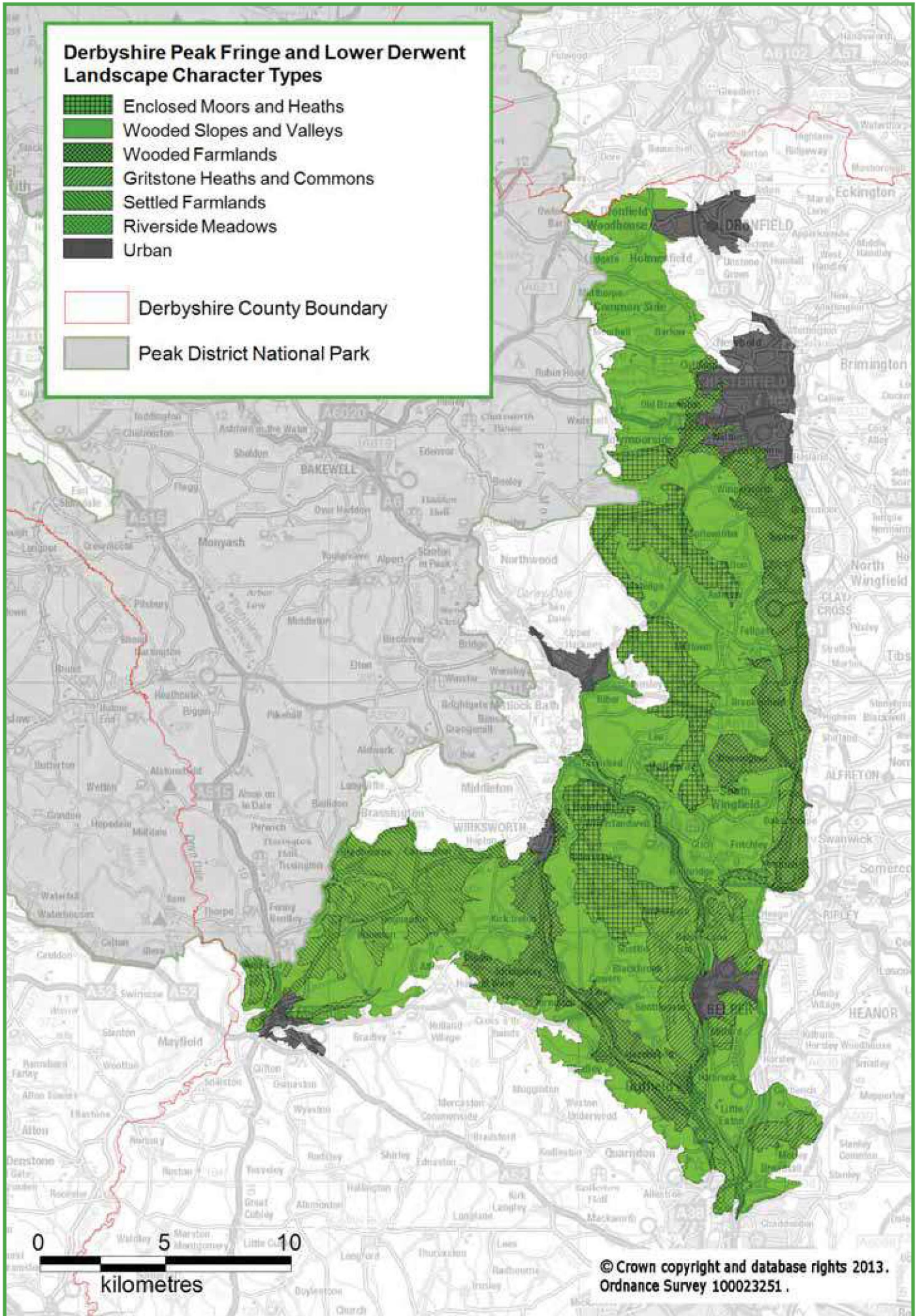
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Derbyshire Peak Fringe and Lower Derwent Landscape Character Types

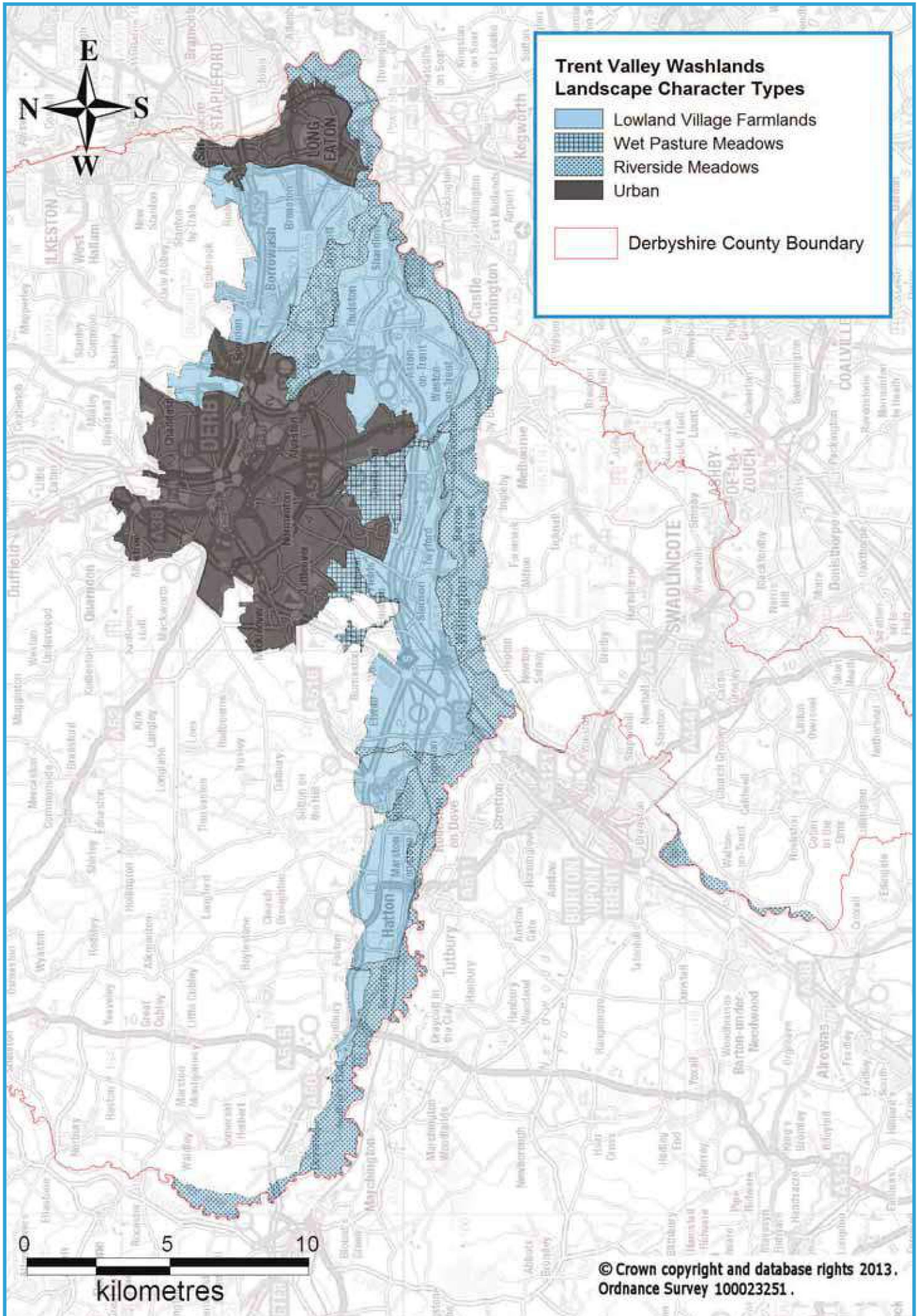
-  Enclosed Moors and Heaths
-  Wooded Slopes and Valleys
-  Wooded Farmlands
-  Gritstone Heaths and Commons
-  Settled Farmlands
-  Riverside Meadows
-  Urban

 Derbyshire County Boundary

 Peak District National Park



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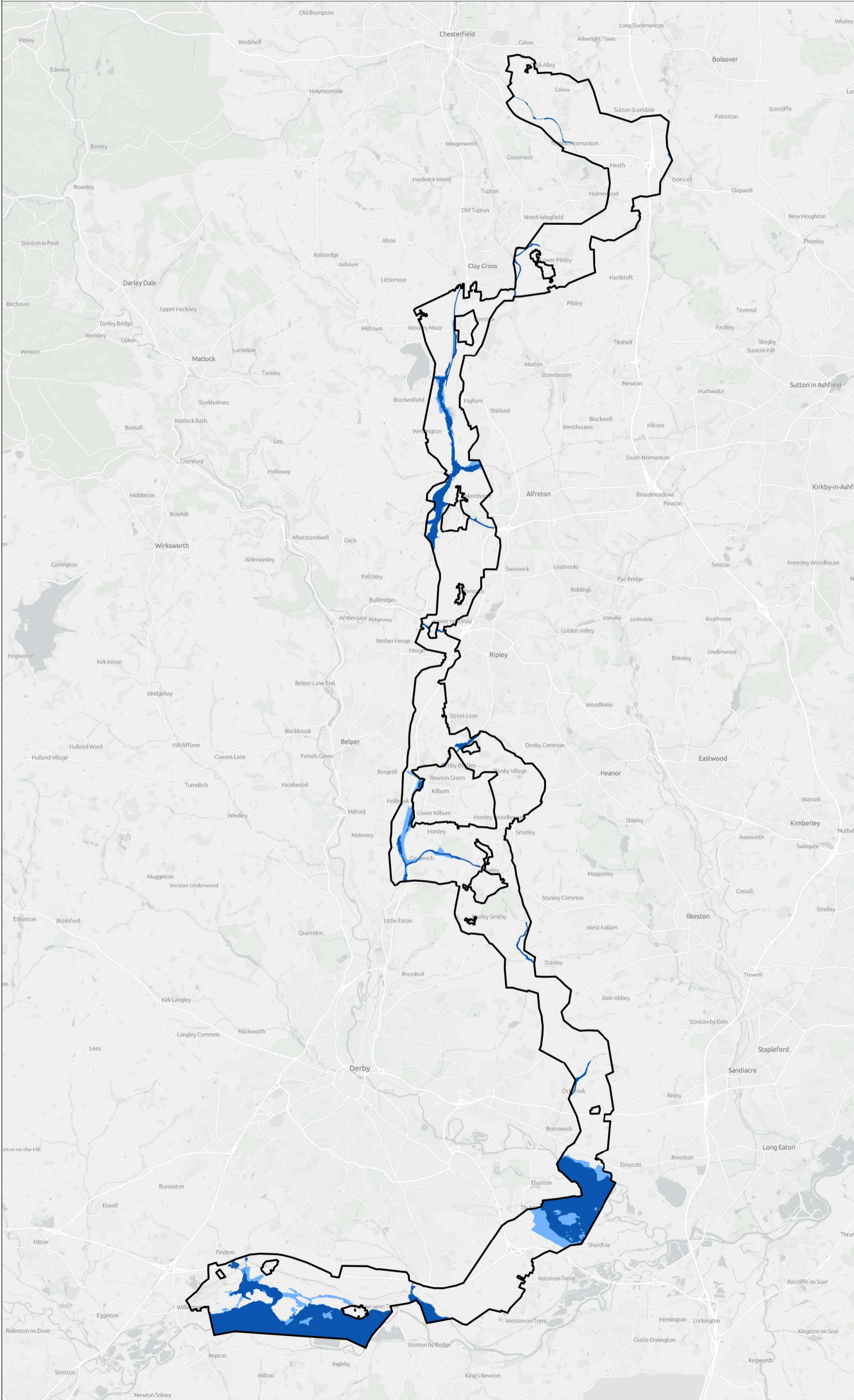


B. Flood Risk Map



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

FLOOD RISK



Legend

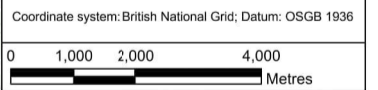
Preferred corridor

Flood risk for planning (rivers and sea) as per Environment Agency flood map, revision 2023

Flood zone 3 (land having a 1% or greater annual probability of river flooding; or land having a 0.5% or greater annual probability of sea flooding)

Flood zone 2 (land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding)

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.



Data sources: Esri, UK, Eri, TomTom, Garmin, FAO, NOAA, USGS, Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack
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PO2	Date	Remarks	Drawn	Checked	Approved

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
FLOOD RISK

nationalgrid
Application Number: 10015272-0000-00-XX-DR-AR-0014
National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

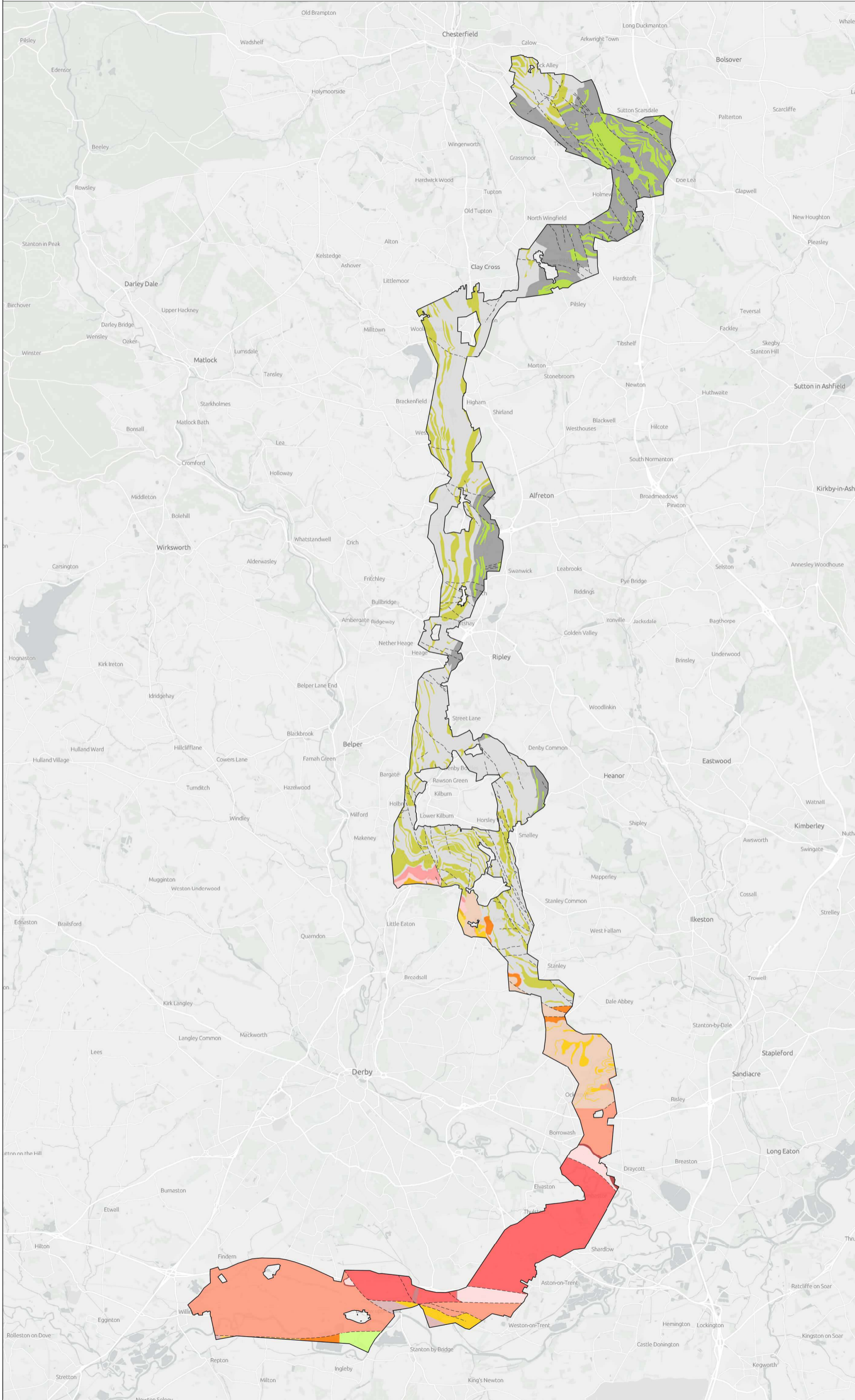
C. Geology

C.1 Bedrock Geology and Faults



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

BEDROCK GEOLOGY AND FAULTS



Legend

☐ Preferred corridor

Bedrock Geology 50k

- BRANSCOMBE MUDSTONE FORMATION - MUDSTONE
- ARDEN SANDSTONE FORMATION - SANDSTONE
- COTGRAVE SANDSTONE MEMBER - SANDSTONE
- EDWALTON MEMBER - MUDSTONE
- GUNTHORPE MEMBER - MUDSTONE
- GUNTHORPE MEMBER - SANDSTONE
- GUNTHORPE MEMBER - SILTSTONE
- HELSEY SANDSTONE FORMATION - MUDSTONE
- HELSEY SANDSTONE FORMATION - SANDSTONE
- CHESTER FORMATION - SANDSTONE, PEBBLY (GRAVELLY)
- CHESTER FORMATION - SANDSTONE AND CONGLOMERATE, INTERBEDDED
- TARPORLEY SILTSTONE FORMATION - MUDSTONE AND SILTSTONE
- TARPORLEY SILTSTONE FORMATION - SANDSTONE
- TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE
- LENTON SANDSTONE FORMATION - SANDSTONE
- MORA FORMATION - BRECCIA
- PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE
- PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE
- TOP HARD ROCK - SANDSTONE
- CRAWSHAW SANDSTONE - SANDSTONE
- DEEP HARD ROCK - SANDSTONE
- LOXLEY EDGE ROCK - SANDSTONE
- PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE AND SILTSTONE
- PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE
- PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE
- SILKSTONE ROCK - SANDSTONE
- TUPTON ROCK - SANDSTONE
- WINGFIELD FLAGS - SANDSTONE
- ROSSDALE FORMATION - MUDSTONE AND SILTSTONE
- ROUGH ROCK - SANDSTONE
- CHATSWORTH GRIT - SANDSTONE
- MARSDEN FORMATION - MUDSTONE AND SILTSTONE
- BOWLAND SHALE FORMATION - MUDSTONE

--- Fault

Notes

This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.

Coordinate system: British National Grid; Datum: OSGB 1936

0 1,000 2,000 4,000 Metres

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PO2	Date	Remarks	Drawn	Checked	Approved

Title

CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BEDROCK GEOLOGY AND FAULTS

nationalgrid

Application Number
10015272-0000-00-XX-DR-AR-0003

National Grid Drawing Reference

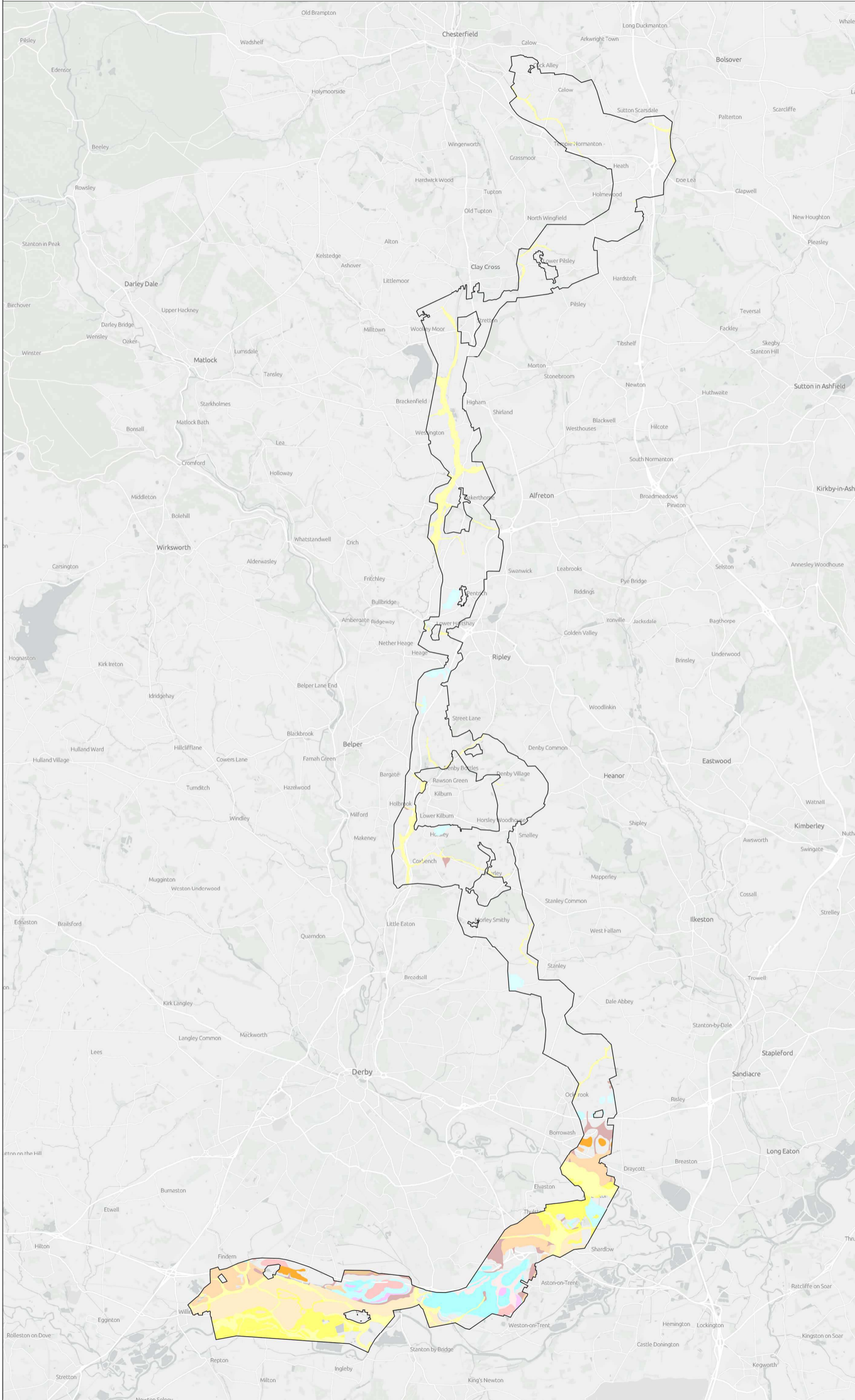
Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

C.2 Superficial Geology



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

SUPERFICIAL GEOLOGY



Legend

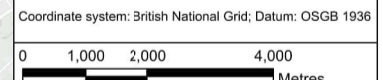
Preferred corridor

Superficial Geology 50k

- ALLUVIUM - CLAY, SILT, SAND AND GRAVEL
- ALLUVIUM - GRAVEL, SAND, SILT AND CLAY
- BORROWASH SAND AND GRAVEL - SAND AND GRAVEL
- FINDERN CLAY - CLAY, SILT AND SAND
- OADBY MEMBER - DIAMICTON
- THRUSSINGTON MEMBER - DIAMICTON
- GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE - SAND AND GRAVEL
- GLACIOLACUSTRINE DEPOSITS, MID PLEISTOCENE - CLAY, SILT AND SAND
- TILL, MID PLEISTOCENE - DIAMICTON
- BEESTON SAND AND GRAVEL MEMBER - SAND AND GRAVEL
- EGGINTON COMMON SAND AND GRAVEL MEMBER - SAND AND GRAVEL
- EAGLE MOOR SAND AND GRAVEL MEMBER - SAND AND GRAVEL
- ETWALL SAND AND GRAVEL MEMBER - SAND AND GRAVEL
- HEMINGTON MEMBER - SILT AND GRAVEL
- HOLME PIERREPONT SAND AND GRAVEL MEMBER - SAND AND GRAVEL
- ALLENTON TERRACE DEPOSITS - SAND AND GRAVEL
- HEAD - DIAMICTON
- HEAD - CLAY, SILT, SAND AND GRAVEL
- LACUSTRINE DEPOSITS, 1 - CLAY, SILT AND SAND
- RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) - SAND AND GRAVEL

Notes

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P02	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked
				Approved

Title

CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
SUPERFICIAL GEOLOGY

nationalgrid

Application Number
10016272-0000-00-XX-DR-AR-0002

National Grid Drawing Reference

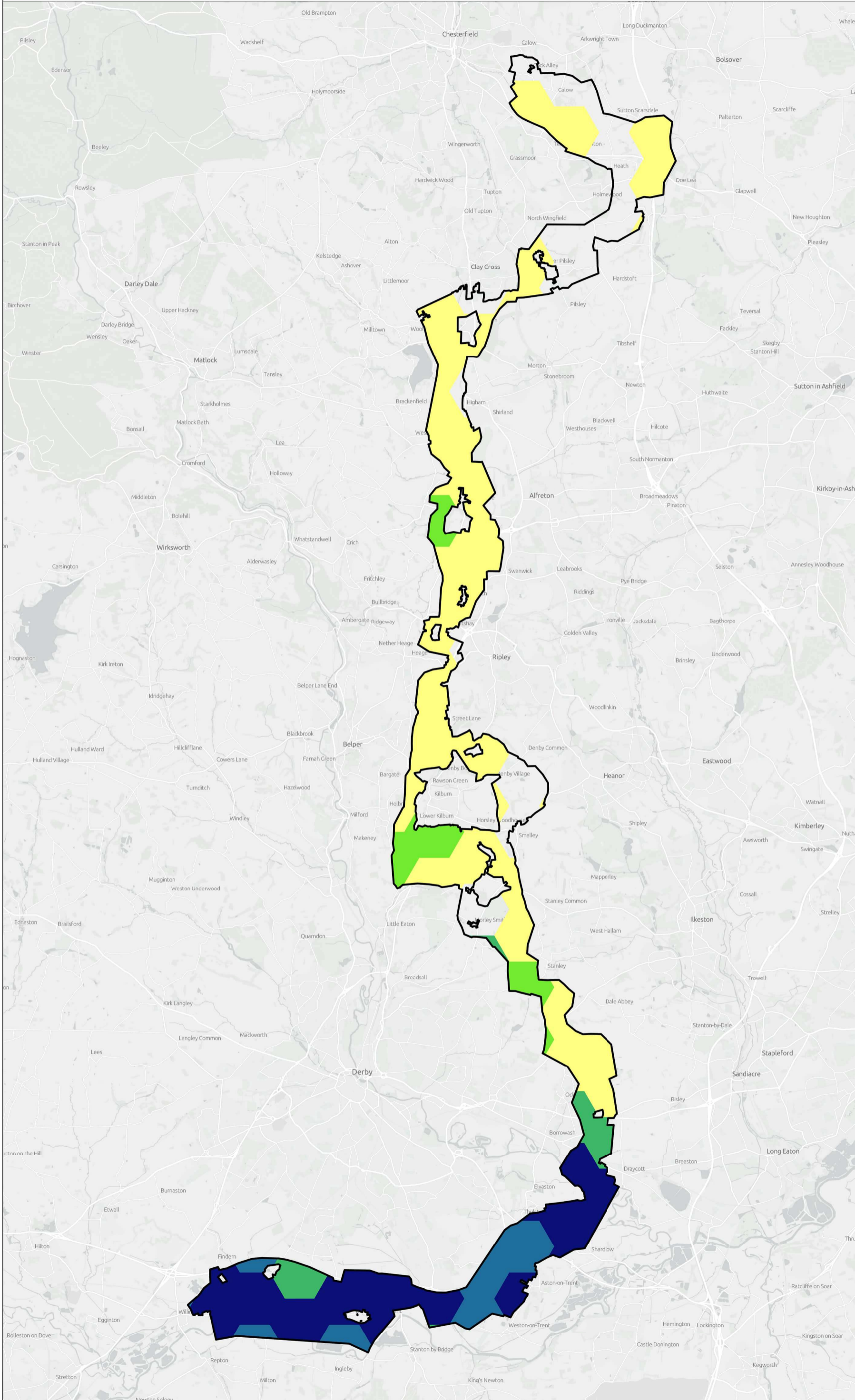
Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

C.3 Superficial Geology Thickness Coverage



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

1 KM HEX SUPERFICIAL THICKNESS - COVERAGE



Legend

Preferred corridor

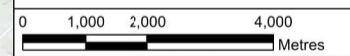
Superficial thickness - coverage (%) *

- ≤ 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100

* Data derived by spatially summarising the information originally created for the BGS high-resolution superficial thickness model.

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.

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PO2	Date	Remarks	Drawn	Checked	Approved

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
1 KM HEX SUPERFICIAL THICKNESS - COVERAGE



Application Number
10015272-0000-00-XX-DR-AR-0011

National Grid Drawing Reference

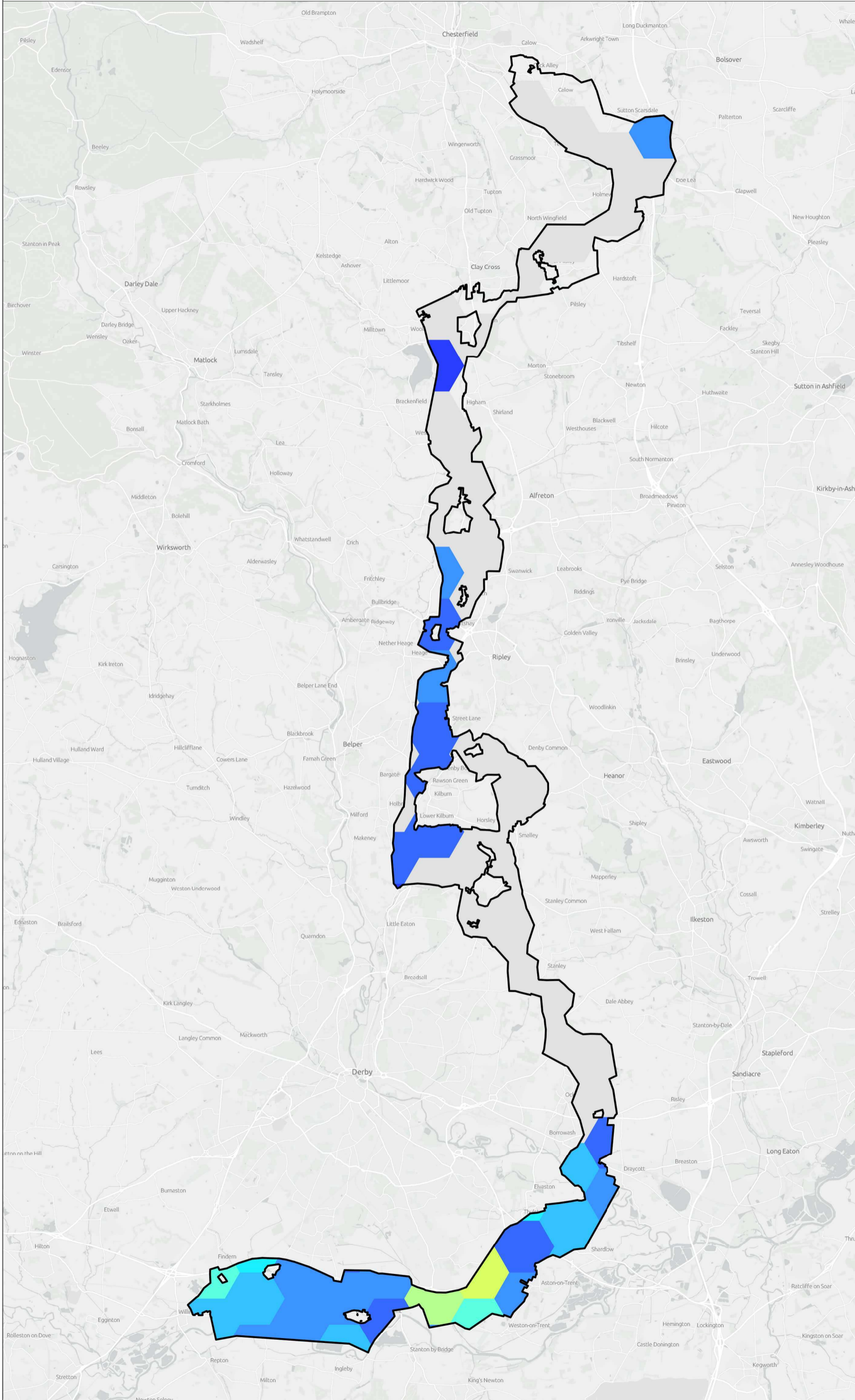
Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

C.4 Superficial Maximum Thickness



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

1 KM HEX MAXIMUM SUPERFICIAL THICKNESS



Legend

Preferred corridor

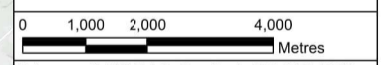
Superficial thickness (m) - maximum *

- ≤ 1
- 1 - 2
- 2 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 30 - 35
- 35 - 40

* Data derived by spatially summarising the information originally created for the BGS high-resolution superficial thickness model.

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.

Coordinate system: British National Grid; Datum: OSGB 1936



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P02	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
1 KM HEX MAXIMUM SUPERFICIAL THICKNESS

nationalgrid
Application Number: 10015272-0000-00-XX-DR-AR-0012
National Grid Drawing Reference

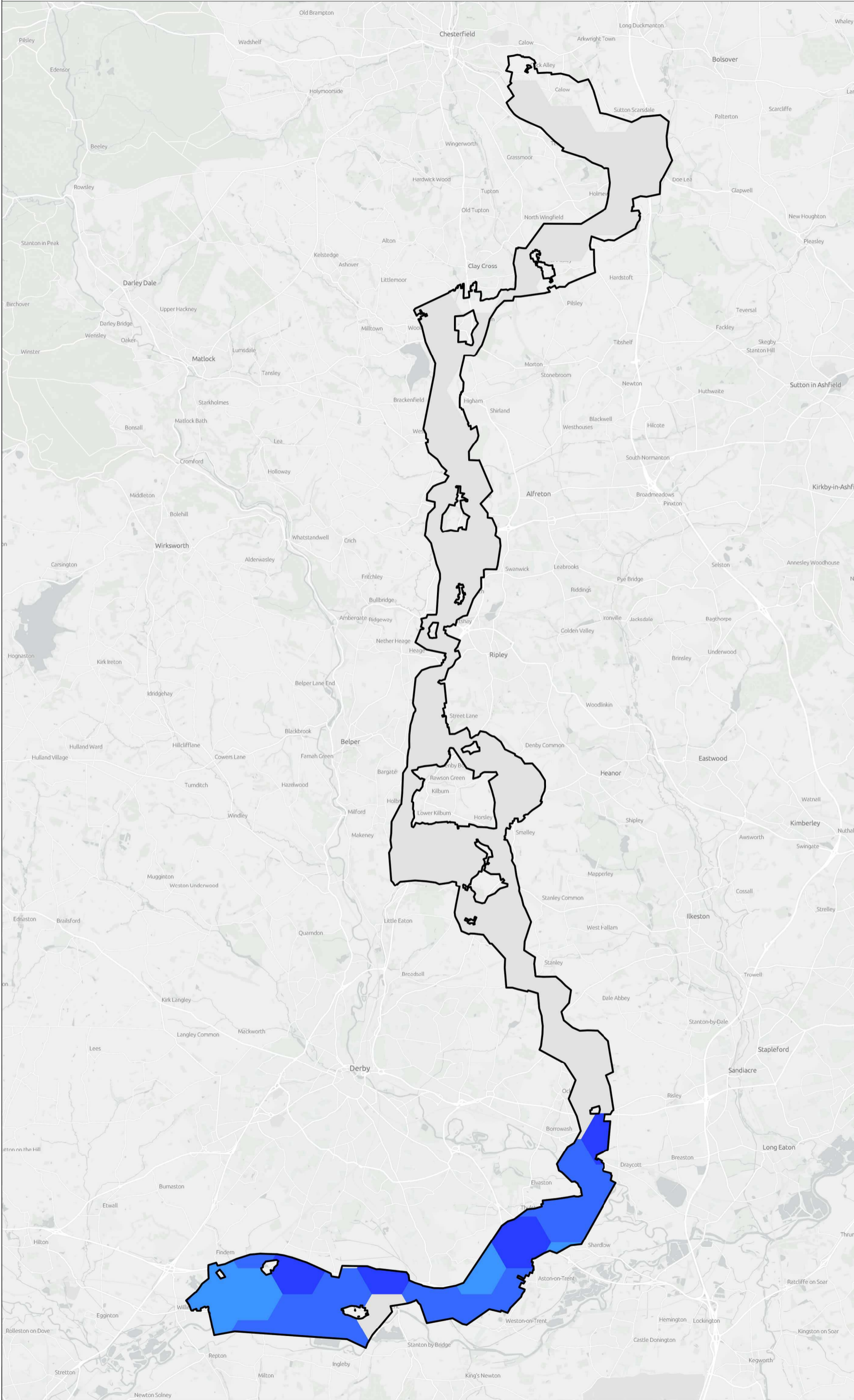
Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

C.5 Superficial Mean Thickness



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

1 KM HEX MEAN SUPERFICIAL THICKNESS



Legend

Preferred corridor

Superficial thickness (m) - mean *

≤ 1

1 - 2

2 - 5

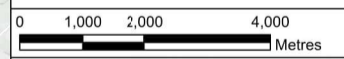
5 - 10

* Data derived by spatially summarising the information originally created for the BGS high-resolution superficial thickness model.

Notes

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P02	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked
				Approved

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
1 KM HEX MEAN SUPERFICIAL THICKNESS

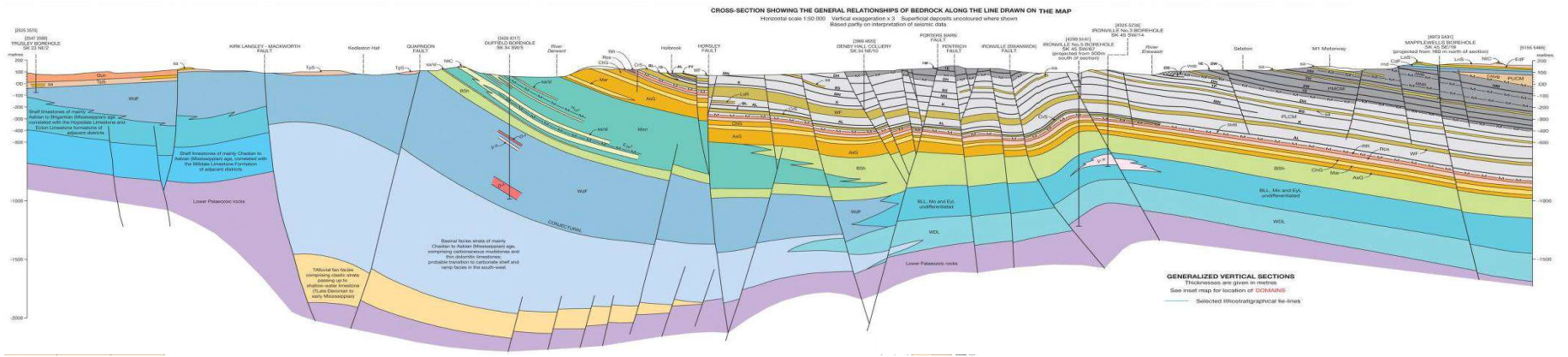


Application Number
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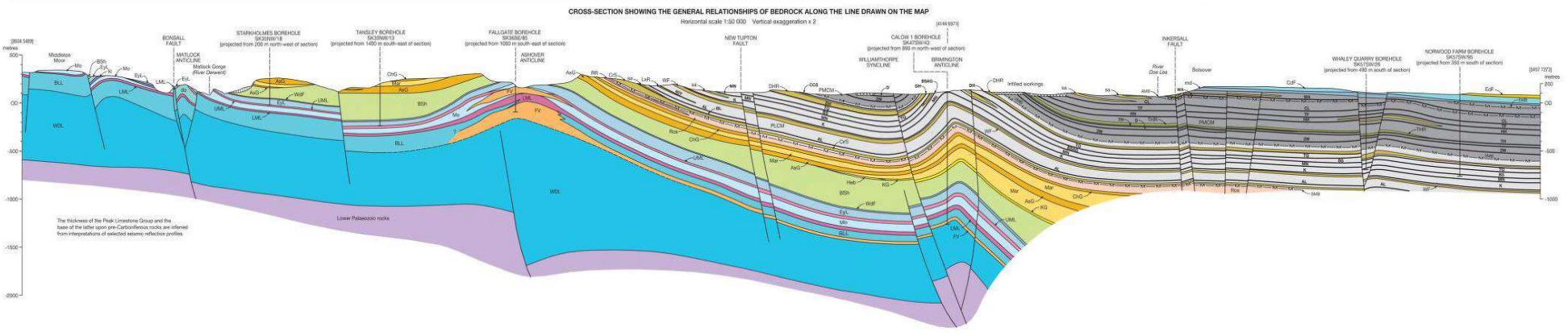
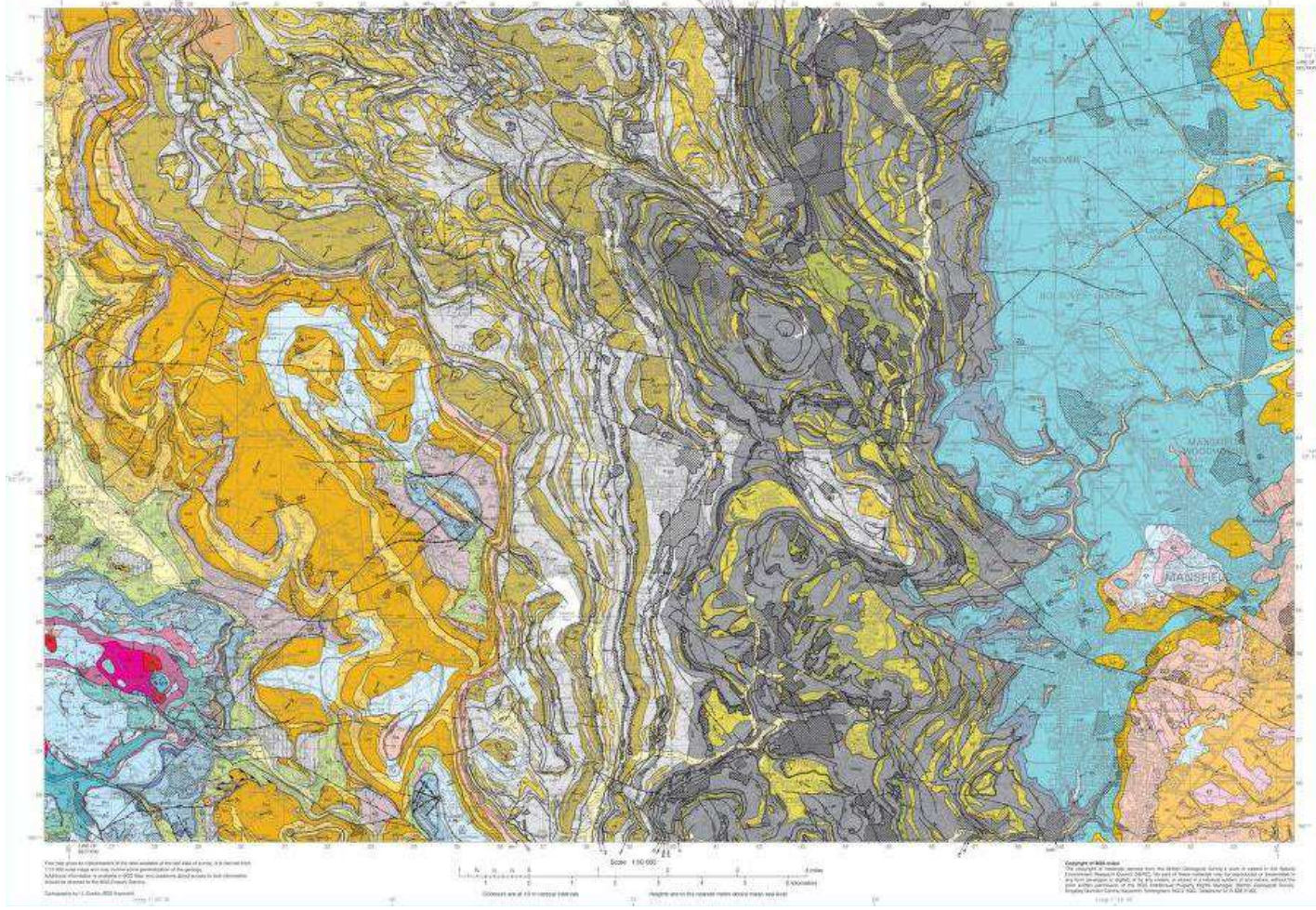
National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

C.6 BGS Map Sheet 125 Cross-Section



C.7 BGS Map Sheet 112 Cross-Section



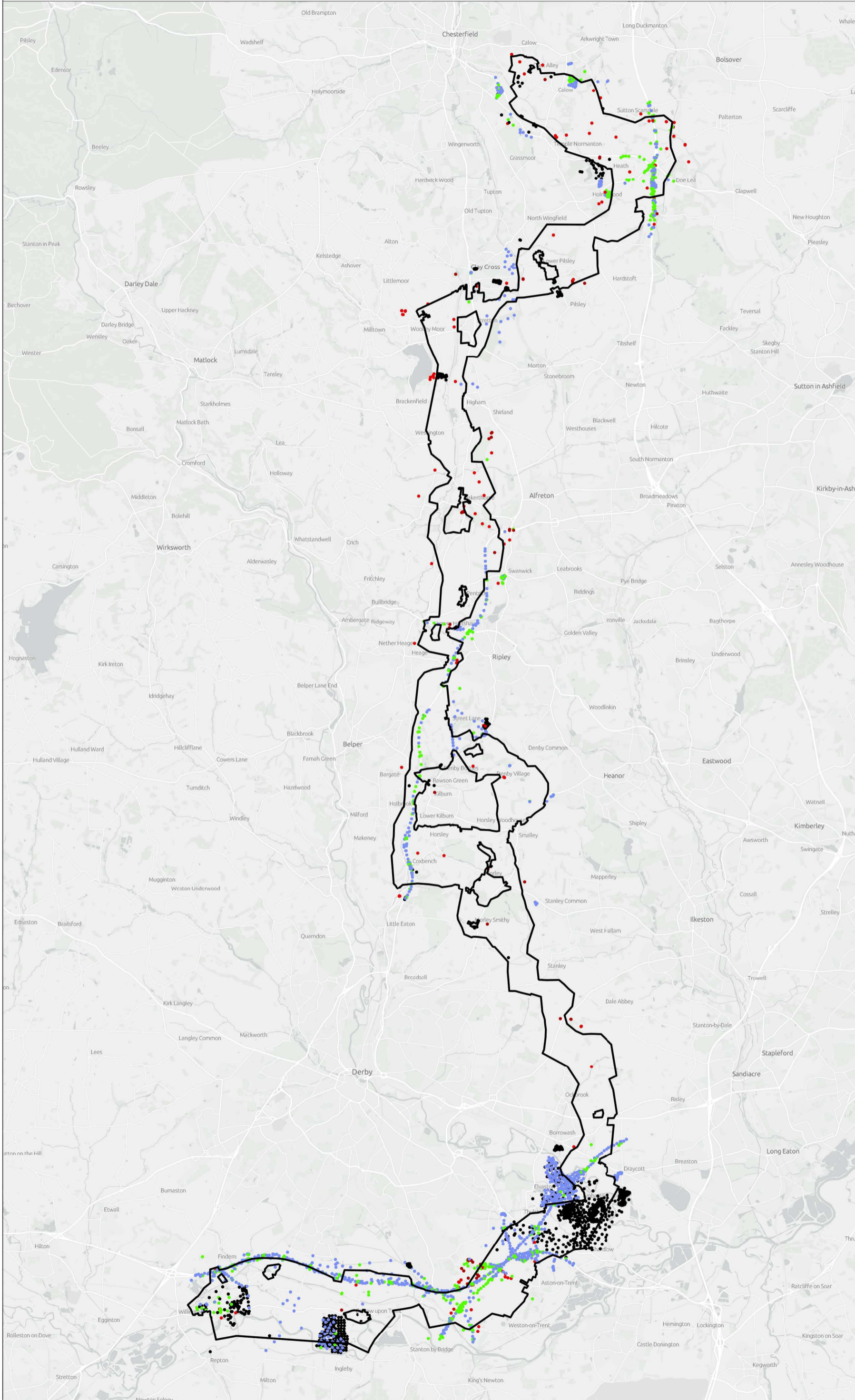
D. Boreholes and Conceptual Ground Model

D.1 Available BGS Historical Boreholes within the Corridor



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

HISTORICAL BOREHOLES



Legend

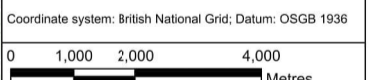
Preferred corridor

Borehole - length

- Unknown length
- Confidential
- 0 - 10m
- 10 - 30m
- 30m+

Note that in order to utilise data that may not be directly within the corridor but is in its close proximity, the displayed boreholes include those located within a buffer zone extending 500 m from the corridor's boundary.

Notes
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P02	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked

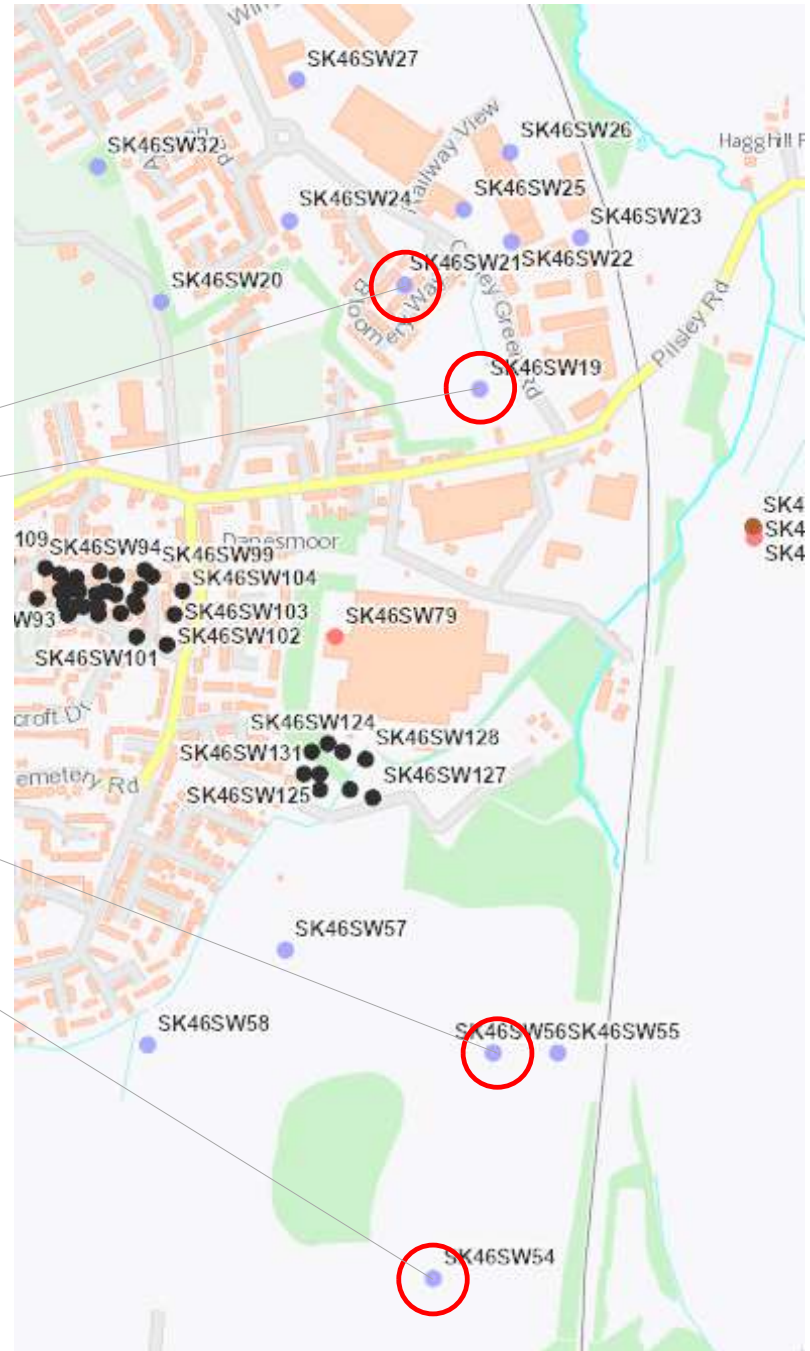
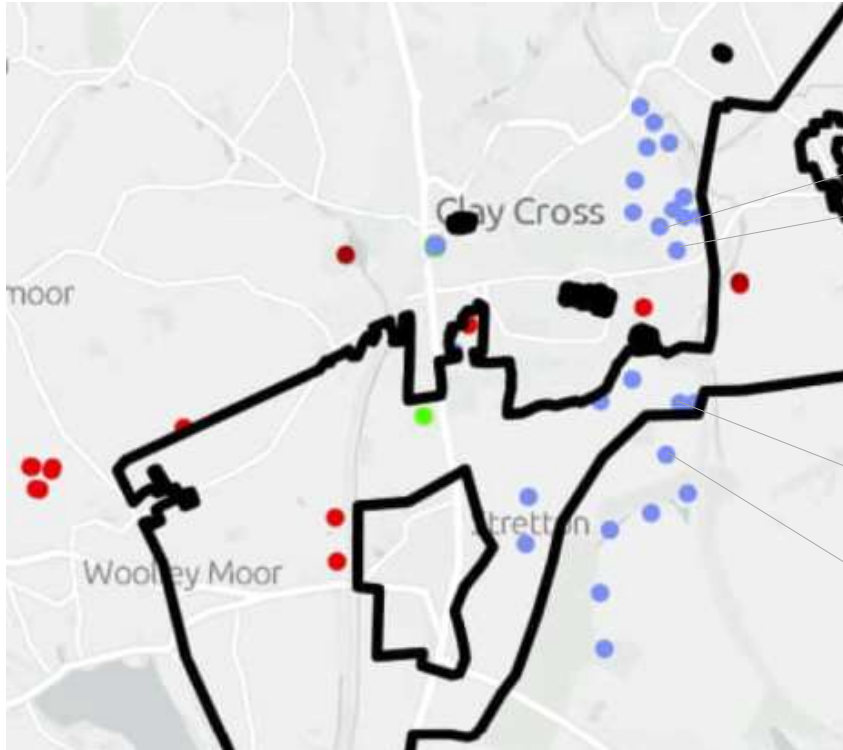
Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
HISTORICAL BOREHOLES

nationalgrid
Application Number: 10015272-0000-00-XX-DR-AR-0005
National Grid Drawing Reference

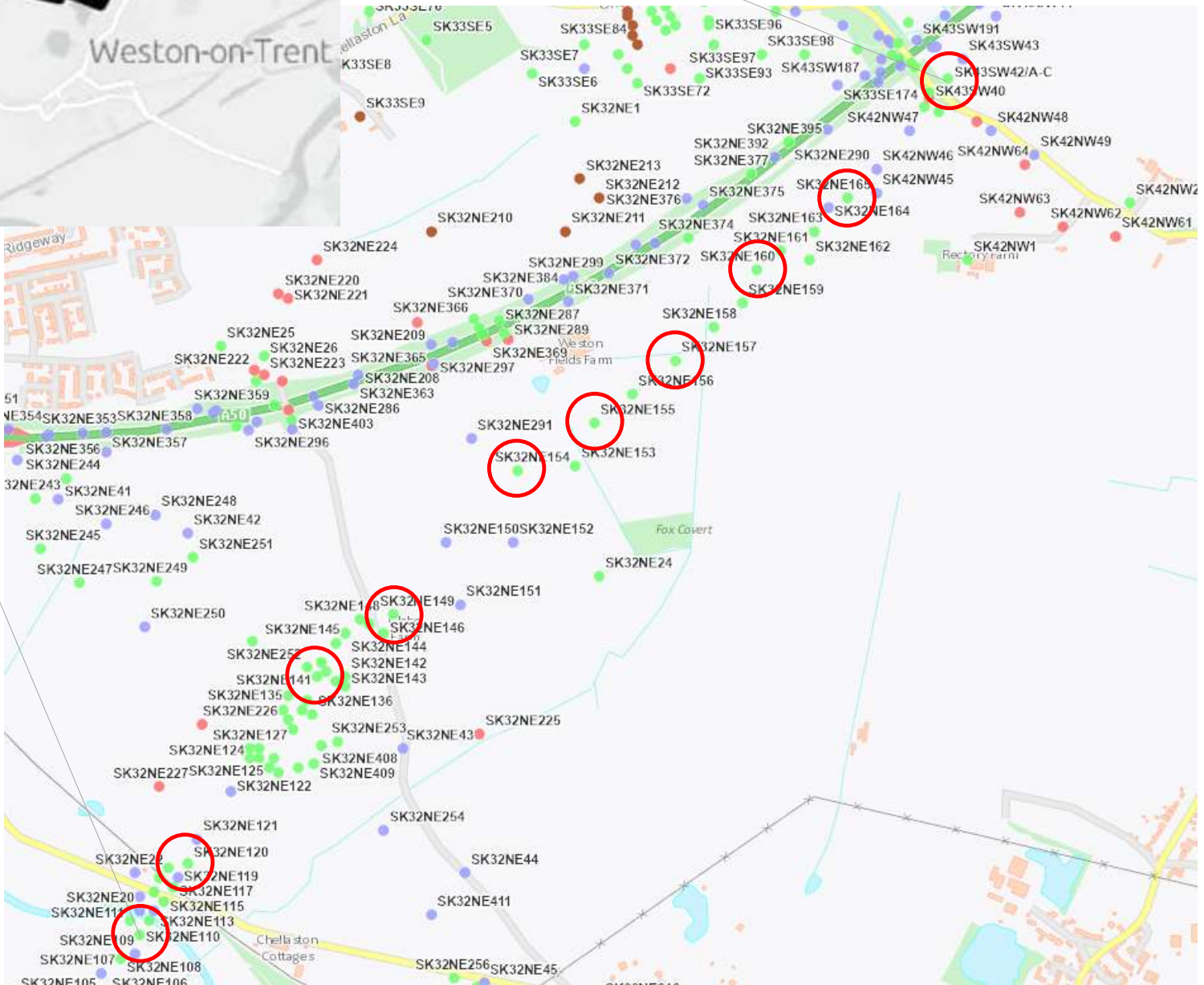
Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

D.2 Borehole Records Locations

Section B



Section D



D.3 Boreholes Records Data



Norwest Holst Soil Engineering Ltd.

Borehole No. **1**

Contract No. F5931
Location Barnabas O.C.C.S.
Client NCB Opencast Executive
Method of Boring Percussion
Diameter of Borehole 250mm

BOREHOLE LOG

Sheet 1 of 1
Co-ords 440589.28E 363326.32N
Ground Level 119.09 m.A.O.D.
Date 8.6.84

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D.%	Daily Progress
TOPSOIL		0.30	118.8				
Stiff, light brown grey, iron stained, highly weathered clayey SILTSTONE with laminations and occasional carbonaceous partings.	+++++				0.50 (38)		
	+++++			250mm			
	+++++				2.00 (69)		
Weathered brown clayey SANDSTONE	3.20	115.9				
	4.00	115.1		3.50	"99"	
Hard brown SANDSTONE	4.35	114.7		4.20	80 for 150m*	

<p>Type of Sample</p> <p>S.P.T. ■ Undisturbed</p> <p>C.P.T. × Vane</p> <p>○ Jar ▲ Water</p> <p>● Bulk ■ Piezometer</p>	<p>Remarks (Observations of Ground Water etc.) (38) - U100 blows *seating blows only.</p> <p>Borehole dry during drilling.</p>
---	--

Water levels are subject to seasonal or tidal variations and should not be taken as constant



Norwest Holst Soil Engineering Ltd.

Borehole No. **3**

BOREHOLE LOG

Contract No. F5931
Location Barnabas O.C.C.S
Client NCB Opencast Executive
Method of Boring Percussion
Diameter of Borehole 250mm

Sheet 1 of 1
Co-ords 440488.69E 363464.17N
Ground Level 115.33 m.A.O.D.
Date 8.6.84

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D.%	Daily Progress
TOPSOIL		0.45	114.9				
Brown and grey mottled silty CLAY with traces of coal		1.00	114.3		0.60 (22)		
Stiff grey/green highly weathered, iron stained clayey SILTSTONE with occasional carbonaceous inclusions and random minor fissures.		3.45	111.9	250mm	1.55 (41)		
Grey/brown fissile shaly MUDSTONE		3.60	111.7		3.00 (98)		

Type of Sample

Is S.P.T. Undisturbed
Ic. C.P.T. Vane
O Jar Water
● Bulk Piezometer

Remarks (Observations of Ground Water etc.) (22) - U100 blows
Borehole dry during drilling

Water levels subject to seasonal or tidal variations and should not be taken as constant



Norwest Holst Soil Engineering Ltd.						Borehole No. 5	
Contract No. F7446		BOREHOLE LOG		Sheet 1 of 1			
Location Rainge OCCS		SK46SW 54		Coordinates E440529, N362159			
Client BC Opencast Executive				Ground Level 124.85 m.A.O.D.			
Method of Boring Percussion				Date 24/2/87			
Diameter of Borehole 150mm							
Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D.%	Daily Progress
TOPSOIL.		0.10	124.75				24/2
Stiff, grey brown mottled CLAY. (MADE GROUND).		0.30	124.55		0.50	"10"	
Loose grey mudstone and sandstone fragments with pockets of clay. (MADE GROUND).		1.00	123.85		s		
Firm, grey and light brown, slightly sandy CLAY, with pockets of grey, silty mudstone. (MADE GROUND).		2.80	122.05		1.50 (120)		
Firm, grey brown, locally mottled orange brown, slightly sandy gravelly CLAY, with roots. ... gravel comprises sandstone and coal fragments.		6.80	118.05		3.00 (60)		
Stiff, green grey, gravelly CLAY. (MADE GROUND) ... gravel comprises mudstone and sandstone.		7.90	116.95		4.50 (55)	"18"	
Medium dense becoming dense, light grey to grey, fine to coarse sandstone GRAVEL. (MADE GROUND?)		9.50	115.35	150mm cased to 9.5m	7.00	"13"	
Borehole completed at 9.50 m.					8.00	"50" for 75mm	24/2
Type of Sample S.P.T. <input type="checkbox"/> Undisturbed C.P.T. <input type="checkbox"/> Vane Jar <input type="checkbox"/> Water Bulk <input type="checkbox"/> Piezometer		Remarks (Observations of Ground Water etc.) (-) - U100 blows Water struck at 5.90 m, level rose after 20 minutes to 5.50 m. Final standing water level 4.50 m. <small>*Water levels are subject to seasonal or tidal variations and should not be taken as constant</small>					



Norwest Holst Soil Engineering Ltd.

Borehole No. **7**

Contract No. F7446
Location Rainge OCCS
Client BC Opencast Executive
Method of Boring Percussion
Diameter of Borehole 150mm

BOREHOLE LOG
Sheet 1 of 1
Co-ords E440608, N362454
Ground Level 112.70 m.A.O.D.
Date 23/2/87

SK 46SW 56

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D. %	Daily Progress
TOPSOIL.		0.30	112.4				23/2
Firm to stiff, light grey and orange brown mottled, sandy CLAY, with occasional coal fragments. (MADE GROUND).		1.80	110.9		0.50 (130)		
Grey with light brown staining, thinly laminated, moderately to highly weathered MUDSTONE, with grey sandy clay. (MADE GROUND?)		3.30	109.4	150mm cased to 3.00m	2.00	"38"	
Grey, thinly laminated, moderately weathered, silty MUDSTONE, weak. (MADE GROUND?)		4.50	108.2		3.50 4.30	"52" "50" for 75mm	23/2
Borehole completed at 4.50 m.							

Type of Sample

- S.P.T. Undisturbed
- C.P.T. Vane
- Jar Water
- Bulk Piezometer

Remarks (Observations of Ground Water etc.) (-) - U100 blows
Ground water not encountered.



CONTRACT No. 440200/330080
MIDLANDS ROAD CONSTRUCTION UNIT

CONTRACT No. 440200/330080
REPORT No. BGS/79/40

Client: Midlands Road Construction Unit. Ground level: 49.58 m a.s.l.

Site Address: Brook Farm, Inulston, Derbyshire. Boring Commenced: 15.10.78
Boring Completed: 16.10.78

Type and Size of Bore: Shell and Auger - 203 mm. Diameter SK 43SW/42-A
C. 440200/330080

Water Sample	Water Level (m)	Water Level (m)	Water Level (m)
1. 110.00 (Medium)	Hole Depth 1.00	15.50	
2.	Casing Depth 7.50	14.00	
3.	Water Level 9.00	14.00 (End of day)	

Remarks: Water strike not sealed off.

Description	Scale 20mm		Sample		Depth (m)	S.P.T. (kN)
	Depth	Interval	Ref. No.	Type		
Topsoil.	0.40					
Stiff brown sandy clay with roots and occasional gravel. (Glacial).			7277	J	0.45	
			7278	U	0.50-0.95	(85)
Soft, becoming very stiff, red silty clay with occasional green specks, sand pockets, and mudstone fragments, with pockets of gypsum becoming more frequent in lower levels. (Kouper Marl).	1.50		7279	J	1.55	
			7280	J	2.10-2.45	(60)
			7281	J	2.50	
			7282	J	3.05	25
			7283	J	3.40	
			7284	U	3.50-3.95	(800)
			7285	J	4.00	
			7286	J	4.55	54
			7287	J	4.90	
			7288	U	5.00-5.45	(800)
			7289	J	5.50	
			7290	J	5.65	100+
			7291	J	6.40	
			7292	J	6.50-6.95	(800)
			7293	J	7.50	
		7294	J	7.75	200+	
		7295	J	8.70		
		7296	J	8.80-9.25	(70)	
		7297	J	9.50		
		7298	J	10.00	150+	

Code: U-Undisturbed Sample D-Large Disturbed Sample J-Jar Sample W-Water Sample



519 602

soil mechanics department

BOULVARD No. 8591
Distribution Sheet No. 2

SK 43 SW / 42 A

CONTRACT 1192 Castle Donington KILL

REPORT No. 505/72/SD

Description	State		Im.	Remarks	Depth (m)	Dist.
	Depth	Level				
Stiff, becoming very stiff, red silty clay with occasional green specks, sand pockets, and sandstone fragments, with pockets of gypsum becoming more frequent in lower levels. (Keuper Marl) (Cont. 11)				7399 J	9.40	
				7300 J	9.50-9.95	(73)
				4175 J	10.00	
				4176 J	10.35	40
				4177 J	11.00	
				4178 U	11.00-11.45	(86)
				4179 J	11.50	
				4180 J	11.65	40
				4181 J	12.10	
				4182 U	12.50-12.95	(86)
Red clayey silt, with occasional green specks, becoming silty or sandy clay at some levels, with frequent pockets of gypsum. (Keuper Marl).	13.00			4183 J	13.05	
				4184 J	13.50	38
				4185 J	13.90	
				4186 U	14.00-14.45	(21)
				4187 J	14.50	
				4188 J	15.05	45
	15.50			4189 J	15.50	
				4190 W	(10.00)	

Codes: U=Undisturbed Sample D=Large Disturbed Sample J=Jar Sample W=Water Content

CONTRACT No. 112 Castle Donington TPA. REPORT No. 565/72/SP

Client Midlands Road Construction Unit. Ground level 69.37 m. A.S.D.

Location Brook Farm, Thelston, Derbyshire. Boring Commenced 16.10.72 Boring Completed 17.10.72

Tested Diameter Shell and Auger - 200 mm. diameter. SK 43SW/42 B

Water Sample Water level recorded during boring at 13.60 m. (End of day).

Water Sample	Water level recorded during boring at
1. 9.00 (Seepage)	13.60
2.	13.50
3.	13.80 (End of day).

Remarks Water strike not cooled off.

Description	Scale 20mm = 1m		Samples	Depth (m)	SPT (N)
	Depth	Ground			
Topsoil.	0.00 - 0.40	[Symbol]	4191 U	0.50	
Stiff brown sandy clay with roots and occasional gravel. (Glacial).	0.40 - 1.00	[Symbol]	4192 U	0.50-0.95	(60)
	1.00 - 1.50	[Symbol]	4193 U	1.00	
Stiff, becoming very stiff, red silty clay or sandy clay with occasional green specks, sand pockets and mudstone fragments. (Kempner Marl).	1.50 - 2.00	[Symbol]	4194 U	2.50-2.95	(75)
	2.00 - 2.50	[Symbol]	4195 U	2.50	
	2.50 - 3.00	[Symbol]	4196 U	2.50	
	3.00 - 3.50	[Symbol]	4197 U	3.00	
	3.50 - 4.00	[Symbol]	4198 U	3.50-3.95	(100)
	4.00 - 4.50	[Symbol]	4199 U	4.00	
	4.50 - 5.00	[Symbol]	4200 U	4.50	
	5.00 - 5.50	[Symbol]	7101 U	4.50	
	5.50 - 6.00	[Symbol]	7102 U	5.50-5.95	(100)
	6.00 - 6.50	[Symbol]	7103 U	6.00	
6.50 - 7.00	[Symbol]	7104 U	6.50	170*	
7.00 - 7.50	[Symbol]	7105 U	7.00		
7.50 - 8.00	[Symbol]	7106 U	7.50-7.95	(100)	
8.00 - 8.50	[Symbol]	7107 U	8.00		
8.50 - 9.00	[Symbol]	7108 U	8.50	52	
9.00 - 9.50	[Symbol]	7109 U	9.00		
9.50 - 10.00	[Symbol]	7110 U	9.50-9.95	(60)	
10.00 - 10.50	[Symbol]	7111 U	10.00		
10.50 - 11.00	[Symbol]	7112 U	10.50	52	
11.00 - 11.50	[Symbol]	7113 U	11.00		

Scale: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample WA—Water Content



Description		Scale 20mm = 1m.	Sample	Depth	Notes	
		Down	Ref. No.	m		
<p>63111, becoming very solid, red silty clay or sandy clay with occasional green spots, sand pockets and mudstone fragments. (Keuper Marl). (Cont'd.)</p> <p>Red, occasionally green, clayey silt or very silty clay with veins and pockets of gypsum. (Keuper Marl).</p>		7114	U	9.00-9.15	(80)	
			7115	U	9.50	
	10.00		7116	U	10.05	45
			7117	U	10.40	
			7118	U	10.90-10.95	(50)
			7119	U	11.00	
			7120	U	11.35	51
			7121	U	11.90	
			7122	U	12.00-12.45	(30)
			7123	U	12.50	
			7124	U	13.05	27
			7125	U	13.40	
			7126	U	13.90-13.95	(20)
			7127	U	14.00	
			7128	U	14.55	31
	15.00		7129	U	15.00	
			7130	U	(9.00)	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Wash



SUD 231

CONTRACT No. M21 Castle Donington MA.		REPORT No. 985/72/99.
Client	Midlands Road Construction Unit.	Ground Level 49.79
Site Address	Drook Farm, Walsley, Derbyshire.	Work Commenced 18.10.72 Boring Completed 18.10.72
Type and dia. of bore	Shell and Auger - 300 mm. diameter.	SK43SW/42c
Time taken	Water Levels Recorded During Work	
1. 9.00 (Seepage)	Water Depth	1.0
2. 13.50 (Seepage)	Water Depth	14.00
3.	Water Level	None (end of day).
Remarks	First and Second water strikes sealed off at 10.00 m. and 14.50 m. respectively.	

Description	Scale 20mm = 1m.		Samples	Depth in	S.P.
	Depth	Layer			
Topsoil.	0.50	[Symbol]	7131 J	0.40	
Brown and orange clayey sand with occasional gravel. (Glacial).		[Symbol]	7132 U	0.50-0.95	(95)
	1.20	[Symbol]	7133 J	1.30	
Stiff, becoming very stiff; red silty clay, with occasional pockets of green silty clay, sand pockets, mudstone fragments and occasional pockets of gypsum. (Keuper Marl).		[Symbol]	7134 U	1.50-1.94	(85)
		[Symbol]	7135 J	2.00	
		[Symbol]	7136 J	2.55	10
		[Symbol]	7137 J	3.00	
		[Symbol]	7138 U	3.00-3.45	(90)
		[Symbol]	7139 J	3.50	
		[Symbol]	7140 J	4.05	30
		[Symbol]	7141 J	4.40	
		[Symbol]	7142 J	4.50-4.95	(120)
		[Symbol]	7143 J	5.30	
	[Symbol]	7144 J	5.75	60	
	[Symbol]	7145 J	5.80		
	[Symbol]	7146 J	6.00-6.45	(100)	
	[Symbol]	7147 J	6.50		
	[Symbol]	7148 J	7.05	50	
	[Symbol]	7149 J	7.40		
	[Symbol]	7150 J	7.50-7.95	(110)	
	[Symbol]	7151 J	8.50		
	[Symbol]	7152 J	8.95	70	
	[Symbol]	7153 J	9.50		

Code: U—Unaltered Sample D—Large Disturbed Sample J—Jar Sample T—Test Sample



soil mechanics department

SK 43SW/42C

BRITISH GEOLOGICAL SURVEY
Cathlamet Road No. 2

CONTRACT 112 Castle Donington ILL.

REPORT No. 565/72/80

Description	Core Number	Interval	Sample		Depth (m)	SPT
			Ref. No.	Dist.		
Silt, becoming very silty, red silty clay, with occasional pockets of green silty clay, sand pockets, mudstone fragments and occasional pockets of gypsum. (Kuper Marl). (Cont'd.)	10.00	10.00-10.05	7154	U	9.00-9.95	
			7155	U	9.95-10.00	
Red clayey silt, occasionally very silty clay, with frequent pockets and thin veins of gypsum at some levels. (Kuper Marl).	10.00	10.05-10.10	7156	U	10.05	35
			7157	U	10.10	
			7158	U	10.10-10.95	(30)
			7159	U	11.00	
			7160	U	11.55	34
			7161	U	11.90	
			7162	U	12.00-12.45	(30)
			7163	U	12.50	
			7164	U	13.05	34
			7165	U	13.40	
	15.00	15.00-15.05	7166	U	15.00-15.95	(40)
			7167	U	16.00	
			7168	U	16.55	29
			7169	U	17.00	
			7170	U	(0.00)	

Order U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SK 32 NE 165

soil mechanics department

BOREHOLE No.

41

Continuation Sheet No. 1

CONTRACT M42 Castle Donington IIA.

REPORT No. 563/72/SD

Description	Soils 20mm - Int.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Brown gravel and clayey sand, occasional brown gravel in a matrix of clayey sand. (Glacial). (Cont'd.)			2941	D	9.30	32
	10.20		2942	J	10.00	
Stiff light brown very silty clay with frequent silt pockets and occasional gravel. (Glacial).			2943	U	10.50-10.95	(200)
	11.50		2944	J	11.30	
Very stiff orange-brown silty clay with frequent gravel. (Glacial).			2945	J	11.60	
			2946	U	11.80-12.25	(150)
Firm red-brown very silty clay with frequent pockets of gypsum. (Keuper Marl).	13.00		2947	J	12.80	
			2948	U	13.00-13.45	(18)
			2949	J	13.50	
	14.00		2950	U	13.50-13.95	(24)
			2951	J	14.00	

SMP 622

Sheet No

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SMD 421

soil mechanics department		BOREHOLE No. 409A				
SK 32 NE 160						
CONTRACT M42 Castle Donington IIA		REPORT No. 563/72/SD				
Client Midland Road Construction Unit		Ground Level 59.18 m. O.D.				
Site Address Weston Fields Farm, Chellaston, Derbyshire.		Boring Commenced 20.10.72 Boring Completed 23.10.72				
Type and Dia. of Boring Shell and Auger - 200 mm. diameter		SK 32 NE 160 3980.2968				
Water Strikes		Water Levels Recorded During Boring m.				
1. 6.30 Medium	1. Hole Depth 9.00	2. 15.00				
2.	2. Casing Depth 9.00	3. 14.00				
3.	3. Water Level 5.40	None	(End of Day)			
Remarks Water strike sealed off at 13.00m.						
Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Topsoil.	0.30		7213	J	0.40	
Firm orange and grey silty clay with occasional chalk fragments and some gravel. (Glacial).			7214	U	0.50-0.95	
			7215	J	1.50	
			7216	U	2.00-2.45	
			7217	J	3.00	
			7218	U	3.50-3.95	(80)
Stiff grey-brown silty or sandy clay containing frequent gravel, chalk and gypsum fragments. (Glacial).			7219	J	4.50	
			7220	U	5.00-5.45	(100)
			7221	J	6.00	
			7222	J	6.30	
Brown silty fine sand with gravel and peat traces. (Glacial).			7223	J	6.80	54
			7224	J	7.50	
			7225	D	8.30	69
Gravel and orange-brown clayey sand. (Glacial).	8.00		7226	J	9.00	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

SK 32 NE /160

S/M/D 622

Description		Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
		Depth	Legend	Ref. No.	Type		
Gravel and orange-brown clayey sand. (Glacial) (cont'd.)		9.70					
Light grey silt, occasionally clayey silt with some sand. (Glacial).				7227	J	9.70	
				7228	U	9.80-10.25	(190)
				7229	J	10.30	
				7230	J	10.80	136
				7231	J	11.00	
				7232	U	11.50-11.95	(100)
				7233	J	12.00	
				7234	J	12.55	76
				7235	J	12.70	
		12.90		7236	J	12.90	
Very stiff grey-brown silty clay containing frequent gravel, mudstone and carbonaceous fragments. (Glacial).				7237	U	13.00-13.45	(200)
				7238	J	14.00	
				7239	U	14.50-14.95	(200)
		15.00		7240	J	15.00	
				7241	W	(6.30)	

SHEET No

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SMD 021

soil mechanics department
SK 32 NE / 157

BOREHOLE No.

408

CONTRACT M42 Castle Donington IIA

REPORT No. 563/72/SD

Client Midland Road Construction Unit

Ground Level
58.63 m. a.s.l.

Site Address Weston Fields Farm, Chellaston, Derbyshire.

Boring Commenced 6.10.72
Boring Completed 7.10.72

Type and Dia. of Boring
Shell and Auger - 200 mm. diameter

SK 32 NE / 157
3963.2949

Water Strikes

Water Levels Recorded During Boring m

1. 2.50 Medium
- 2.
- 3.

Hole Depth	9.15	14.00				
Casing Depth	9.00	12.50				
Water Level	1.00	None	(End of Day)			

Remarks Water strike sealed off at 12.50m.
Piezometer installed at 10.60m.; sand cell 9.50m. to 10.80m.

Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Topsoil.	0.45					
Stiff grey and brown silty clay, occasionally clayey silt, with some gravel and carbonaceous fragments. (Glacial).			3722	J	0.50	
			3723	U	0.55-1.00	(112)
			3724	J	1.50	
Brown clayey sand and gravel. (Glacial).	1.50		3725	U	1.55-2.00	(97)
			3726	J	2.30	
Brown clayey silty sand with gravel. (Glacial).	2.50		3727	D	2.80	18
			3728	J	3.50	
			3729	D	4.30	33
	5.00		3730	J	5.10	
			3731	U	5.65-6.10	(100)
		3732	J	6.50		
		3733	U	7.15-7.60	(98)	
		3734	J	8.00		
		3735	U	8.70-9.15	(96)	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SMD 472

Description		Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
		Depth	Legend	Ref.No.	Type		
Firm brown silty clay interbedded with bands of clayey silt, silt and sand. (Glacial).		9.15		3737	J	9.50	
				3738	U	10.20-10.65	(88)
Very stiff silty clay containing gravel, mudstone and carbonaceous fragments. (Glacial).				3739	J	11.15	
				3740	U	11.80-12.25	(92)
		12.50		3741	J	12.50	
				3742	U	13.30-13.75	(112)
		14.00		3743	J	14.00	
				3736	W	(2.50)	

SHEET No

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



soil mechanics department
SK 32 NE 155

BOREHOLE No. 407

CONTRACT M42 Castle Donington IIA REPORT No. 563/72/SD

Client Midland Road Construction Unit Ground Level 57.77 m. o.d.

Site Address Weston Fields Farm, Chellaston, Derbyshire. Boring Commenced 5.10.72 Boring Completed 5.10.72

Type and Dia. of Boring Shell and Auger - 200 mm. diameter **SK 32 NE 155**
2946, 2936

Water Strikes		Water Levels Recorded During Boring m					
1. None	Hole Depth						
2.	Casing Depth						
3.	Water Level						

Remarks Piezometer installed at 13.50m.; sand cell 13.00m. to 14.00m.

Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. No.
	Depth	Legend	Set. No.	Type		
Topsoil.	0.45					
Very stiff brown and grey silty clay with gravel, chalk and coal fragments, and sand pockets. (Glacial).			3701	J	0.50	
			3702	U	0.55-1.00	(105)
			3703	J	1.30	
			3704	U	1.55-2.00	(93)
			3705	J	2.50	
			3706	U	2.60-3.05	(95)
			3707	J	3.50	
Very stiff brown and grey silty clay with occasional gravel, coal and siltstone fragments. (Glacial)	4.50		3708	U	4.10-4.55	(115)
			3709	J	5.00	
			3710	U	5.65-6.10	(67)
			3711	J	6.50	
			3712	U	7.15-7.60	(95)
			3713	J	8.00	
			3714	U	8.70-9.15	(79)

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

SMD 622

Description		Scale 20mm = 1in.		Samples		Depth in	S.P.T. N
		Depth	Legend	Ref. No.	Type		
Very stiff brown and grey silty clay with occasional gravel, coal and siltstone fragments. (Glacial) (cont'd.)		10.00		3715	J	9.50	
Very stiff grey silty clay with gravel, mudstone fragments and carbonaceous fragments. (Glacial).			14.00		3716	U	10.20-10.65
				3717	J	11.15	
				3718	U	11.80-12.25	(73)
				3719	J	12.50	
				3720	U	13.30-13.75	(71)
			3721	J	14.00		

SHEET No

Code: U--Undisturbed Sample D--Large Disturbed Sample J--Jar Sample W--Water Sample



SMD 22

soil mechanics department SK 32 NE 154		BOREHOLE No 406
CONTRACT M12 Castle Donington IIA		REPORT No. 563/72/SD
Client Midland Road Construction Unit	Ground Level 57.69 m. O.D.	
Site Address Rectory Farm, Weston-on-Trent, Derbyshire.	Boring Commenced 1.7.72 Boring Completed 4.10.72	
Type and Dia. of Boring Shell and Auger. - 200 mm. diameter	SK 32 NE 154 3930. 2926	
Water Strikes	Water Levels Recorded During Boring m	
1. None	Hole Depth	
2.	Casing Depth	
3.	Water Level	
Remarks		
Description	Scale 20mm = 1m.	Samples
	Depth	Ref. No. Type
Topsoil.	0.50	2561 J 0.40
Stiff brown, orange and grey silty clay containing sand pockets, gravel and chalk fragments. (Glacial).	2.00	2562 U 0.50-0.95 (84)
		2563 J 1.50
Very stiff brown and grey silty clay containing sand pockets, gravel and coal fragments. (Glacial).	2.00	2564 U 2.00-2.45 (96)
		2565 J 2.80
		2566 U 3.50-3.95 (74)
		2567 J 4.30
		2568 U 5.00-5.45 (110)
		2569 J 5.80
		2570 U 6.50-6.95 (130)
		2571 J 7.30
Brown silty sand interbedded with layers of silty clay containing gravel. (Glacial).	8.00	2572 U 8.00-8.45
	8.90	2573 J 8.45-8.90

U—Undisturbed Sample D—Large Disturbed Sample J—Jet Sample



SMD 622

soil mechanics department
SK 32NE 154

BOHMER No. 406
Corrosion Sheet No. 1

CONTRACT M42 Castle Donington IIA

REPORT No. 563/72/SD

Description	Scale 20mm = 1m		Samples		Depth m	S.F.T. N
	Depth	Legend	Ref. No.	Type		
Very stiff brown silty clay containing gravel, mudstone and carbonaceous fragments. (Glacial).						
			2574	U	9.50-9.95	(154)
			2575	J	10.30	
	11.50		2576	U	11.05-11.50	(184)
			2577	J	11.50	

SHEET No.

Code U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

soil mechanics department

B404

SK 32 NE 149

SIAD 621

CONTRACT M42 Castle Donington IIA REPORT No. 563/72/SD

Client Midlands Road Construction Unit Ground Level 47.92 m. O.D.

Site Address Rectory Farm, Weston-on-Trent, Derbyshire. Boring Commenced 28.9.72 Boring Completed 3.10.72

Type and Dia. of Boring Shell and Auger - 200 mm. diameter SK 32 NE 149 3904.2896

Water Strikes	Water Levels Recorded During Boring m			
	Hole Depth	13.50	16.00	
1. 13.00 (Fast)	Casing Depth	3.00	15.00	
2.	Water Level	6.00	6.00 (End of Day).	
3.				

Remarks Water strike not sealed off.

Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Log	Ref. No.	Type		
Topsoil.	0.45		3827	J	0.50	
Very stiff brown sandy clay containing frequent gravel, sandstone and carbonaceous fragments. (Glacial).			3828	U	0.55-1.00	(158)
			3829	J	1.30	
			3830	J	1.55-2.00	(79)
			3831	J	2.30	
			3832	U	2.60-3.05	(62)
			3833	J	3.50	
			3834	U	4.10-4.55	(42)
			3835	J	5.00	
			3836	U	5.65-6.10	(56)
			3837	J	6.50	
Stiff grey-brown laminated clay containing occasional gravel, with bands of silt in lower levels. (Glacial).	7.00		3838	J	7.10	
			3839	U	7.15-7.60	(35)
			3840	J	8.00	
			3841	U	8.70-9.15	(34)

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SK 32 NE / 149

Description		Scale 20mm = 1m.		Samples		Depth m	S.P.N. N
		Depth	Legend	Ref. No.	Type		
Stiff grey-brown laminated clay containing occasional gravel, with bands of silt in lower levels. (Glacial). (Cont'd.)				3842	J	9.50	
				3843	U	10.20-10.65	(30)
				3844	J	11.15	
				3845	U	11.80-12.25	(28)
				3846	J	12.60	
Red-brown clay-bound gravel and silty sand. (Glacial).		13.00		3847	U	13.05-13.50	(19)
				3849	J	14.50	
Very stiff red and green silty clay with mudstone fragments. (Keuper Marl). Grey-green siltstone. (Keuper Marl).		15.00		3850	J	15.00	
		15.70		3851	U	15.25-15.70	(250)
		16.00		3852	J	15.70	
				3853	J	16.00	4004
				3848	W	(13.00)	

S.M.D. 922

SHEET No

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



S.M.D. 521

soil mechanics department SK 32 NE / 137		BOREHOLE No. B595				
CONTRACT M42 Castle Donington IIA		REPORT No. 563/72/SD				
Client	Midlands Road Construction Unit.	Ground Level	45.96 m. O.D.			
Site Address	Weston Hill Farm, Weston-on-Trent, Derbyshire.	Boring Commenced	21.9.72			
		Boring Completed	22.9.72			
Type and Dia. of Boring		SK 32 NE / 137				
Shell and Auger - 200 mm. diameter		3888.2883				
Water Strikes		Water Levels Recorded During Boring m				
1. None	Hole Depth					
2.	Casing Depth					
3.	Water Level					
Remarks						
Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Topsoil. Very stiff brown sandy clay containing frequent gravel, siltstone and carbonaceous fragments. (Glacial).	0.30		5201	J	0.40	
			5202	U	0.50-0.95	(65)
			5203	J	1.50	
			5204	U	2.00-2.45	(70)
			5205	J	3.00	
			5206	U	3.50-3.95	(100)
			5207	J	4.50	
			5208	U	5.00-5.45	(100)
			5209	J	6.00	
			5210	U	6.50-6.95	(100)
			5211	J	7.50	
	Stiff/	8.00		5212	U	8.00-8.45
(Cont'd.)			5213	J	9.00	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



Description		Scale 20mm = 1m.		Samples		Depth	S.P.T. Blows
		Depth	Legend	Ref.No.	Type		
Stiff grey-brown laminated clay containing gravel in upper levels and with silt in some laminations. (Glacial).			x				
			o	5214	U	9.50-9.95	(68)
			x	5215	J	10.50	
			x				
			o	5216	U	11.00-11.45	(60)
			o				
			o	5217	J	12.00	
			x	5218	U	12.50-12.95	(68)
			x				
			o	5219	J	13.50	
	o	5220	U	14.00-14.45	(58)		
	x						
	15.00	5221	J	15.00			

Code: U—Un-disturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



soil mechanics department SK32 NE 120		B37A				
CONTRACT	M42 Castle Donington IIA	REPORT No. 563/72/SD				
Client	Midland Road Construction Unit	Ground Level 37.55 m. O.S.				
Site Address	Rectory Farm, Weston-on-Trent, Derbyshire.	Boring Commenced 25.8.72 Boring Completed 21.11.72				
Type and Dia. of Boring Shell and Auger - 200 mm. diameter Rotary Coring, water flush, 412(75mm.) diam., from 8.70m. to 15.00m.						
Water Strikes	Water Levels Recorded During Boring m					
1. 4.00 Medium	Hole Depth	8.70				
2.	Casing Depth	8.70				
3.	Water Level	5.10	End of Day			
Remarks	Water strike not sealed off. SK32 NE 120 Borehole originally numbered B51. 3861, 2844					
Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Topsoil.	0.30					
Firm brown sandy clay. (Alluvium).	0.70		6156	J	0.60	
Yellow and grey clay sand, occasionally weakly-cemented, interbedded with bands of red- brown silty clay. (Keuper).			6157	U	1.00-1.45	(47)
			6158	J	2.00	
			6159	U	2.50-2.95	(150)
			6160	J	3.50	
Very stiff red and green shaley clay with bands of mudstone and some thin bands of sand or sandstone. (Keuper).	3.80		6161	D	4.30	400+
			6162	J	5.00	
			6163	J	5.50	
			6164	D	6.00	600+
			6165	U	6.50-6.95	(320)
			6166	J	7.50	
			6167	D	8.30	1000+
Grey sandstone. (Keuper).	8.60		6168	J	8.00	2000+
	8.70		6169	W	(4.00)	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample



SK 32 NE 120

soil mechanics department

BOREHOLE No. B57A
Continuation Sheet No. 1

CONTRACT M42 Castle Donington IIA

REPORT No. 563/72/SD

Description	Scale 20mm = 1m		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Red-brown, grey and green silty clay with bands of siltstone, becoming shaley siltstone at lower levels. (Keuper).	9.95		Core Recovery %		Circulation Return %	
Grey-white sandstone with thin bands of light grey shaley siltstone, becoming conglomeratic sandstone. (Keuper).			100		90	
Thinly-bedded red-brown shaley mudstone and siltstone. (Carb. Limestone)	11.45		95		90	
Red-brown sandstone and siltstone. (Carb. Limestone)	11.85		100		90	
			100		90	
Black shaley mudstone. (Carb. Limestone)	13.15		100		90	
Grey-white sandstone and calcareous siltstone. (Carb. Limestone)	13.65		95		90	
Dark grey shaley mudstone. (Carb. Limestone)	14.50		95		90	
	15.00					

SMD 622

SHEET No

Code: U--Undisturbed Sample D--Large Disturbed Sample J--Jar Sample W--Water Sample



SK 32 NE/110 3851.2829

Soil mechanics department		BOREHOLE No. 128
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CONTRACT M42 Castle Donington IIA	REPORT No. 563/72/SD
--------------------------------------	----------------------

Client Midland Road Construction Unit	Ground Level 37.16 m. O.D.
--	-------------------------------

Site Address Weston Hill Farm, Weston-on-Trent, Derbyshire.	Boring Commenced 28.9.72 Boring Completed 29.9.72
---	--

Type and Dia. of Boring
Shell and Auger - 200 mm. diameter

Water Strikes	Water Levels Recorded During Boring m					
	Note	Depth	4.40	6.00		
1. 1.50 (Seepage)	None	4.40	6.00			
2. 3.00 (Medium)	Casing	4.40	6.00			
3.	Water Level	2.60	4.00	(End of Day)		

Remarks
First water strike partially sealed off; second strike not sealed off.

Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ref. No.	Type		
Topsoil.	0.30					
Firm orange and grey sandy clay with roots. (Alluvium).	0.50		3824	J	0.60	
Firm orange, brown and grey very sandy clay containing gravel. (Alluvium).	1.20		3825	U	1.00-1.45	(75)
Stiff red silty clay with thick bands of clayey silt and bands and veins of green and yellow silty clay. (Keuper).	2.40		3826	J	2.00	
Red fissured shaley clay with mudstone fragments. (Keuper).	3.00		3827	U	2.50-2.95	(120)
Yellow and grey weathered sandstone, reduced to silty sand at some levels, with bands of red silty clay. (Keuper).	4.40		3828	U	3.00-3.45	(220)
			3829	J	3.50	
			3830	J	3.70	45
			3831	D	4.30	340+
			3833	J	4.50	
			3834	D	4.80	370+
			3835	J	5.30	
			3836	D	5.80	340+
			3837	J	6.00	
			3832	W	(3.00)	

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jet Sample W—Water Sample



SK32 NE /110

soil mechanics department		BOREHOLE No. B28A
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CONTRACT	M42 Castles Donington IIA	REPORT No. 563/72/SD
----------	---------------------------	----------------------

Client	Midland Road Construction Unit	Ground Level 37.16 m. O.D.
--------	--------------------------------	-------------------------------

Site Address	Weston Hill Farm, Weston-on-Trent, Derbyshire.	Boring Commenced 8.11.72 Boring Completed 17.11.72
--------------	---	---

Type and Dia. of Boring Rotary Open-Hole: water flush: 120mm. diam. from 0m. to
Rotary Coring: water flush: 412 (75 mm.)diam. from 3.05m. to 15.00m. 3.05m.

Water Strikes	Water Levels Recorded During Boring m					
	Hole Depth	Casing Depth				
1.						
2.						
3.						

Remarks Open-Hole descriptions based on fluid returns and strata revealed in Borehole No. B28.

Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N
	Depth	Legend	Ret. No.	Type		
Orange and grey sandy clay, becoming red silty clay. (Alluvium/Keuper).			Core Recovery %			
			OPEN HOLE		20	
Yellow and white weathered siltstone and fine sandstone. (Keuper).	3.05					
Yellow silty fine sandstone, becoming medium and coarse sandstone at some levels, with occasional bands of red and grey silty clay. (Keuper).	3.15		100		90	
Light and dark brown shaley siltstone with bands of yellow and grey sandstone. (Keuper).						
			100		90	
Red-brown shaley mudstone with grey and grey-green siltstone or shaley siltstone bands. (Keuper).	6.40					
			100		90	
	8.70					

SHEET No

Codes: M—Indicating Sample D—Large Diameter



SK 32 NE 110

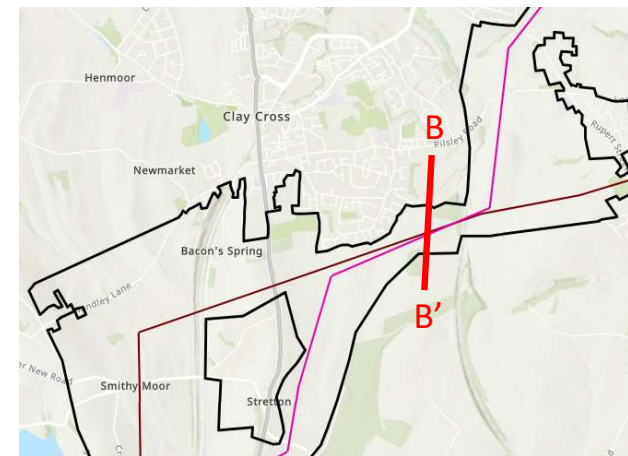
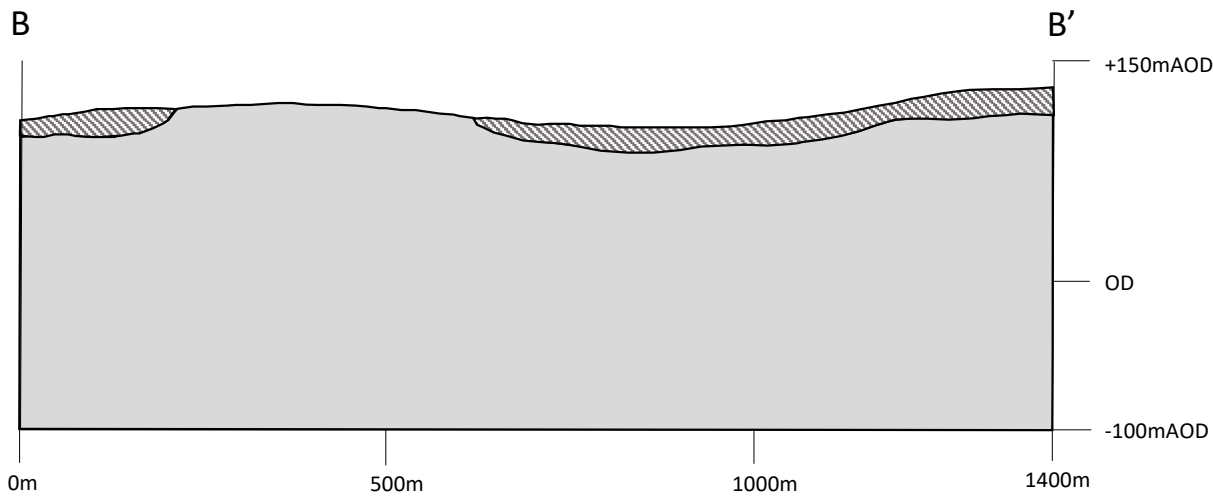
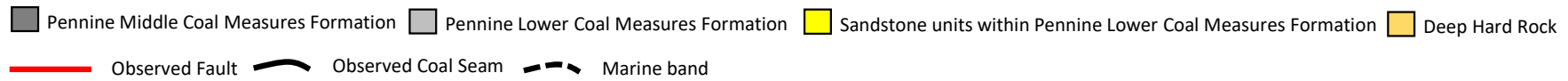
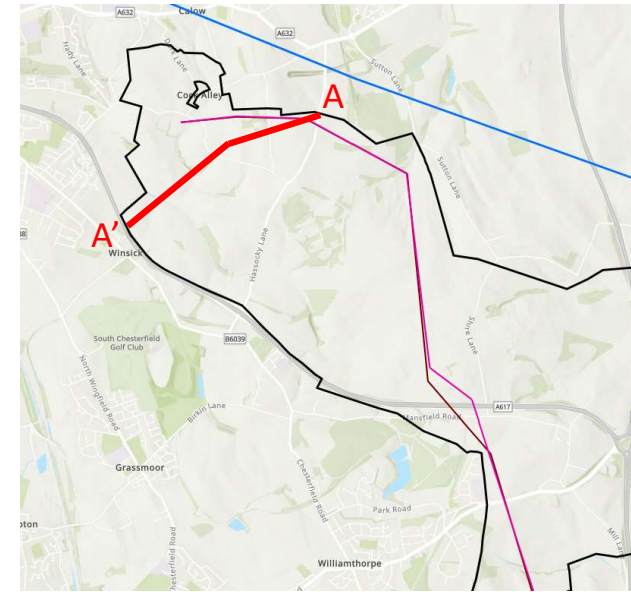
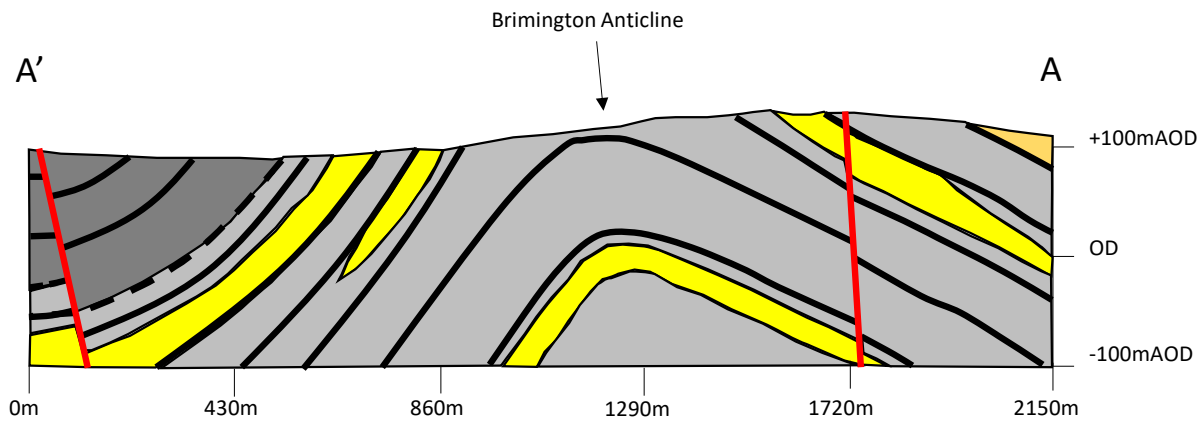
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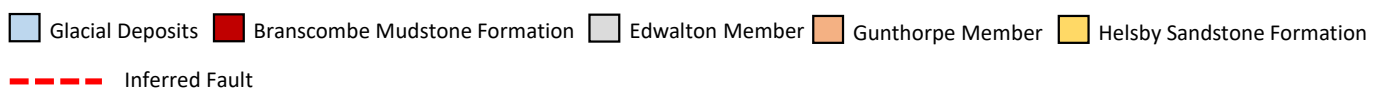
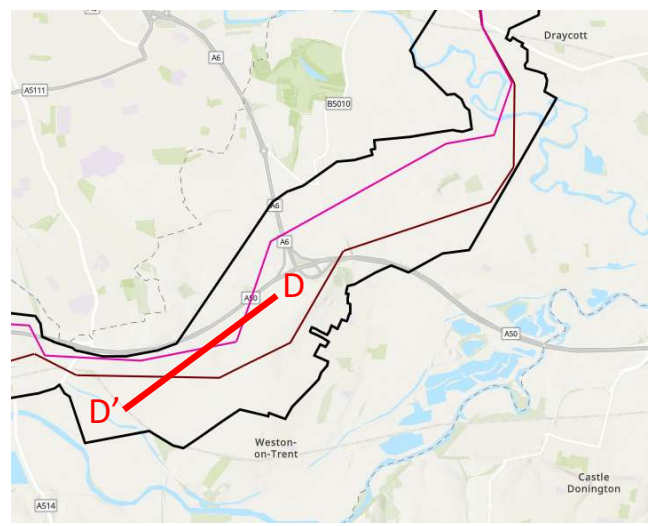
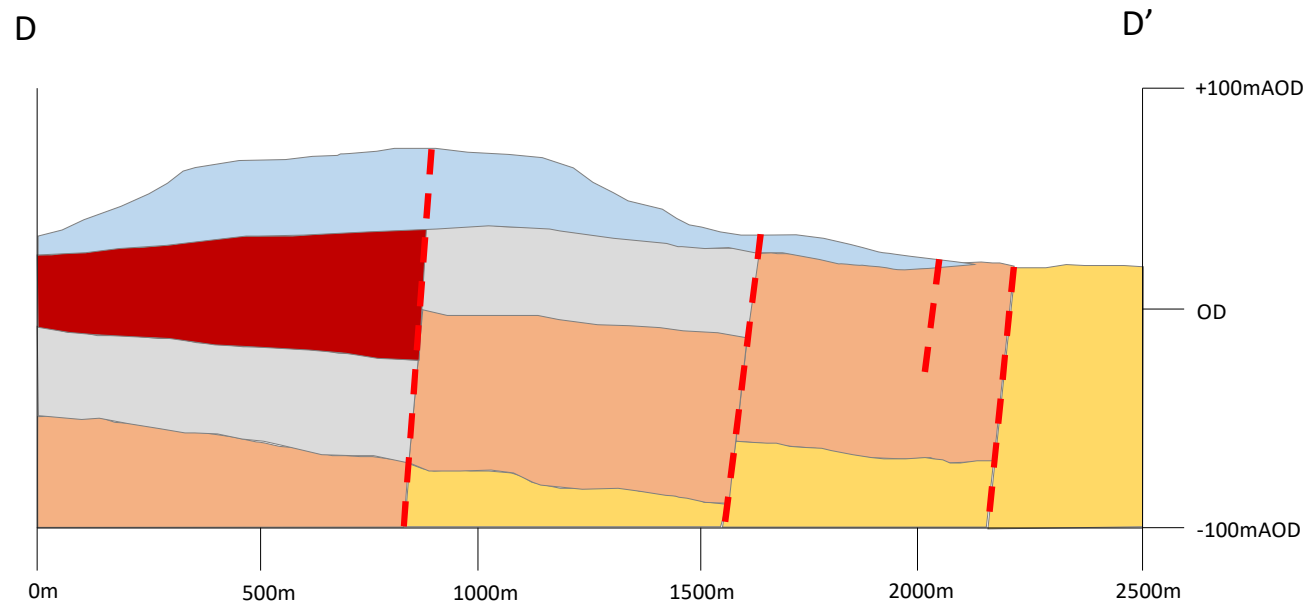
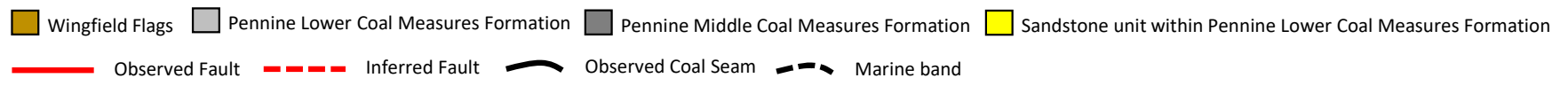
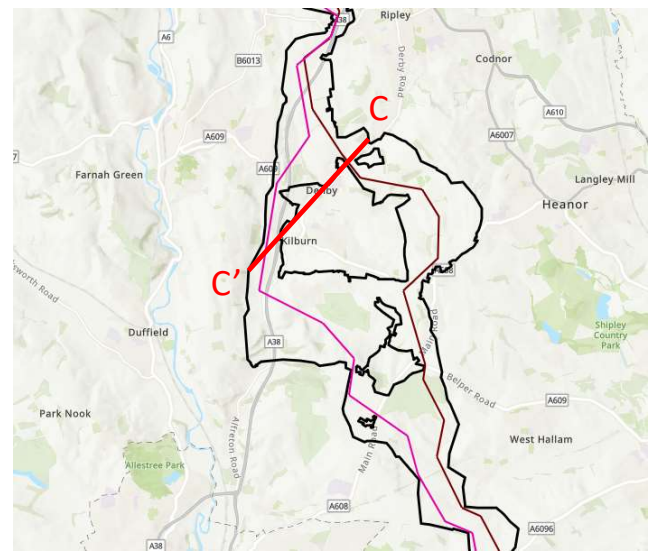
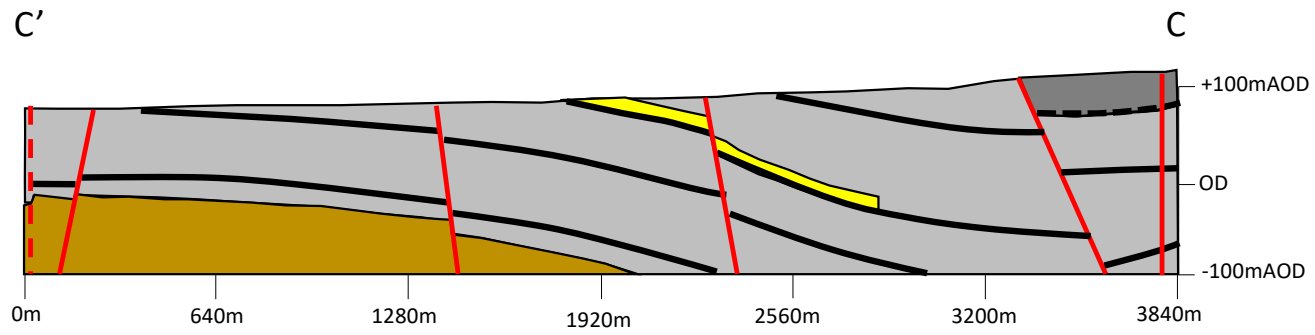
Description		Scale 20mm = 1m.		Samples		Depth		S.P.T.	
		Depth	Legend	Ref. No.	Dist.	m	N		
Grey-white sandstone and conglomeratic sandstone with thin bands and pellets of grey-green siltstone. (Keuper).				100		100			
Thinly-interbedded purple, grey and yellow shaley mudstone and calcareous siltstone. (Carb. L'st.)		10.35		60		100			
Dark grey crystalline fossiliferous limestone. (Carb. Limestone).		10.85		100		100			
Light grey and brown limestone with bands of dark brown to grey-black mudstone, occasionally reduced to silty clay. (Carboniferous Limestone).		11.25		100		100			
Grey calcareous silty sandstone interbedded with dark grey mudstone, occasionally reduced to silty clay, with some calcite veins. (Carboniferous Limestone).		12.80		100		100			
		15.00		100		100			

SHEET No. 13318

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

D.4 Conceptual Ground Model





E. Artificial Ground and Landfill Sites



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

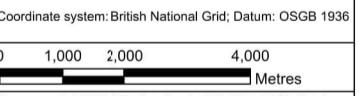
ARTIFICIAL GROUND AND LANDFILL



Legend

- Preferred corridor
- Artificial Ground 50k**
- ARTIFICIAL DEPOSIT
- WORKED GROUND (UNDIVIDED)
- INFILLED GROUND
- Permitted waste / Authorised landfill site

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.



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PO2	Date	Remarks	Drawn	Checked	Approved

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
ARTIFICIAL GROUND AND LANDFILL










nationalgrid
Application Number: 10015272-0000-00-XX-DR-AR-0018
National Grid Drawing Reference

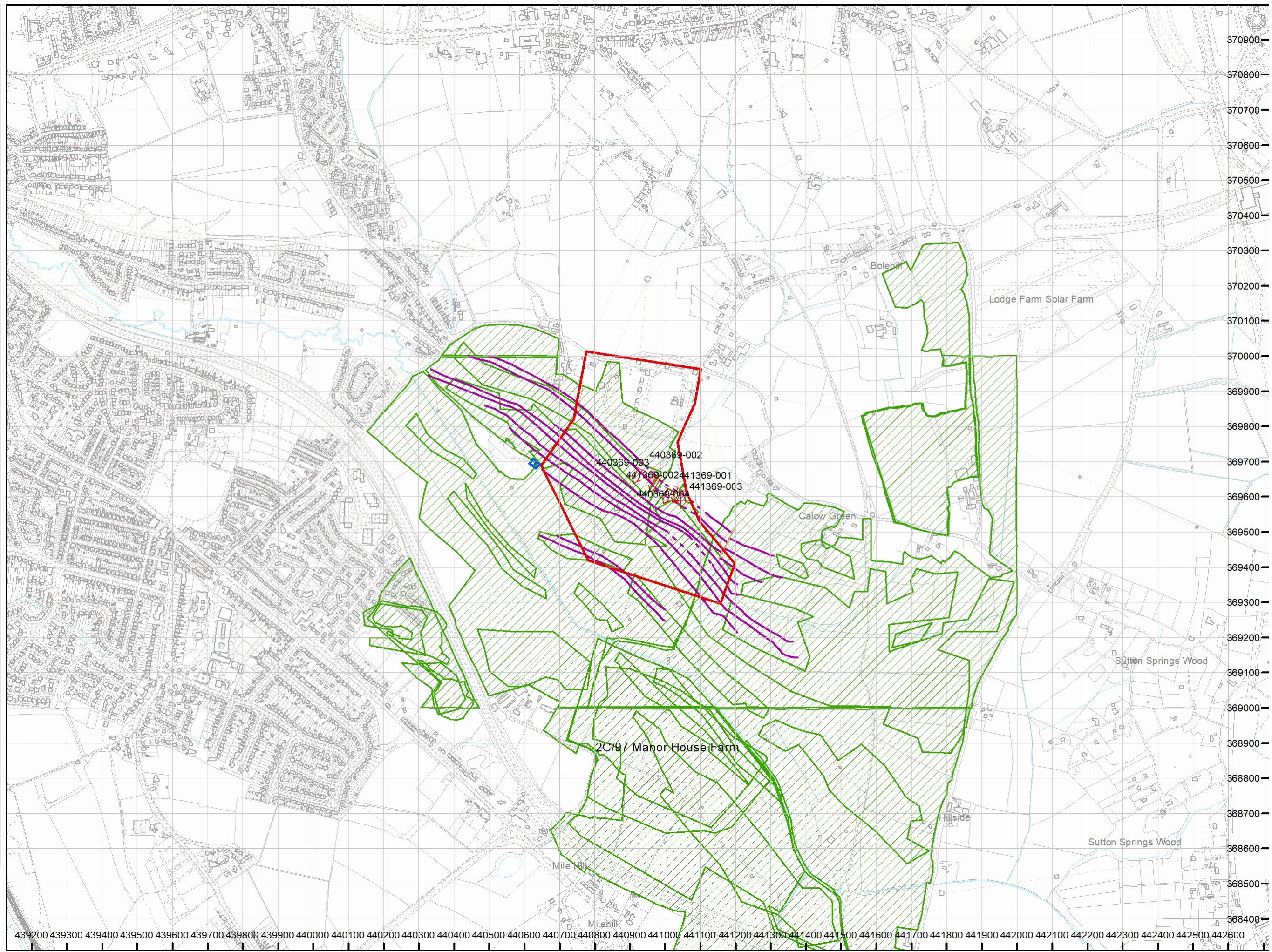
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F. Coal Authority Mining Report around Chesterfield Substation

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

- Approximate position of the enquiry boundary shown 
- Disused mine shaft 
- Disused adit 
- Outcrop (Proven) 
- Outcrop (Conjectured) 
- Geological faults 
- Opencast mine licence area 
- Unlicensed opencast site 
- Coal claim 



How to contact us
 0345 762 6848 (UK)
 +44 (0)1623 637 000 (International)
 www.groundstability.com

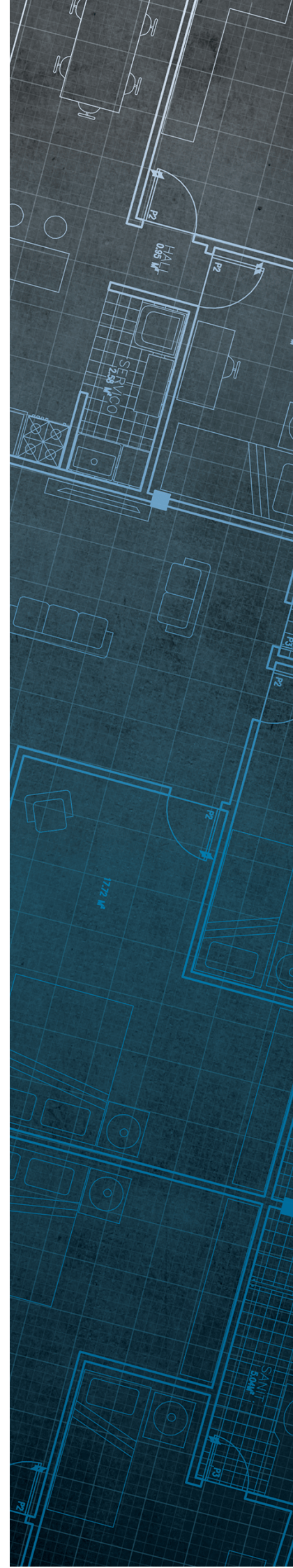


The Coal
Authority

Consultants Coal Mining Report

National Grid Chesterfield
Substation
Calow Lane
South Yorkshire

Date of enquiry:	22 August 2023
Date enquiry received:	22 August 2023
Issue date:	22 August 2023
Our reference:	51003373983002
Your reference:	



Consultants Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

Christopher Spence

Enquiry address

National Grid Chesterfield Substation
Calow Lane
South Yorkshire


How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

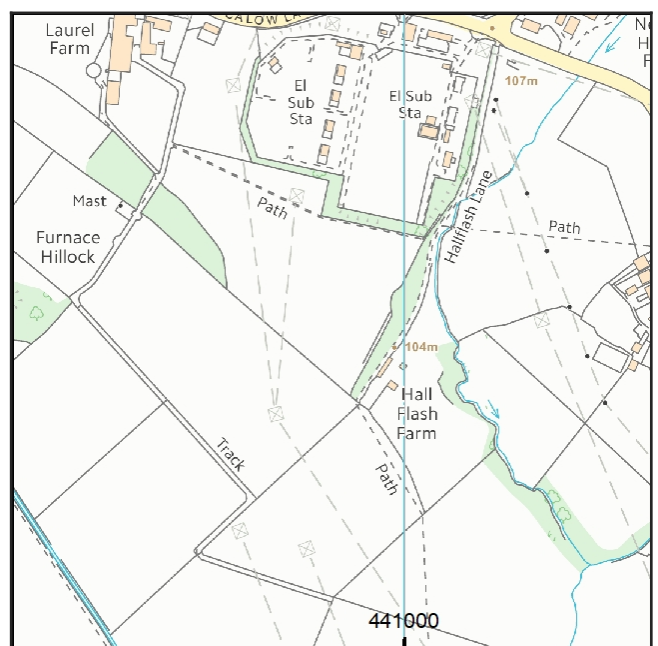
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
CALOW	BLACKSHAL E	Coal	6243	6	Beneath Property	26.6	South-West	145	1927
HALL FLASH	BLACKSHAL E	Coal	6244	6	Beneath Property	22.6	South-West	124	1913
CALOW OLD FURNACE	BLACKSHAL E I/S	Ironstone	7Z45	18	Beneath Property	16.8	South-West	100	1834
CALOW OLD FURNACE	DOGTOOTH I/S	Ironstone	7Z44	33	Beneath Property			100	1834
BONDS MAIN	THREE QUARTER	Coal	6240	151	Beneath Property	25.8	South-West	84	1945
BONDS MAIN	BLACKSHAL E	Coal	6242	234	Beneath Property	23.1	South-West	147	1943

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

Distance to spine roadway (m)	Direction to spine roadway
Within	N/A
Within	N/A

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Adit	440369-002	440928 369677	was filled to an unknown specification in 1954	Coal	
Shaft	440369-003	440968 369657		Coal	
Adit	440369-004	440975 369650		Coal	
Adit	441369-001	441012 369619		Coal	
Adit	441369-002	441041 369620		Coal	
Shaft	441369-003	441046 369589		Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

14119	14071	6131
13703	17106	16200
13702	EM623	8884

Our records show we have more plans than those shown above which could affect the enquiry boundary.

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
BLACKSHALE	Coal	Yes	33.7	North-East	114
BLACKSHALE	Coal	Yes	Within	N/A	120
BLACKSHALE	Coal	Yes	Within	N/A	129
BLACKSHALE	Coal	Yes	Within	N/A	306
BLACKSHALE	Coal	Yes	31.6	North-East	315
CHAVERY	Coal	Yes	Within	N/A	123
COCKLESHELL	Coal	Yes	Within	N/A	126
COCKLESHELL	Coal	Yes	Within	N/A	130
COCKLESHELL	Coal	Yes	Within	N/A	137
COCKLESHELL	Coal	Yes	Within	N/A	151
DEEP HARD	Coal	Yes	Within	N/A	128
DEEP HARD	Coal	Yes	Within	N/A	321
FIRST PIPER	Coal	Yes	Within	N/A	125
FIRST PIPER	Coal	Yes	Within	N/A	321
LOW TUPTON	Coal	Yes	Within	N/A	131
LOW TUPTON	Coal	Yes	Within	N/A	141
SECOND PIPER	Coal	Yes	Within	N/A	131
SECOND PIPER	Coal	Yes	Within	N/A	136
SECOND PIPER	Coal	Yes	Within	N/A	137
SITWELL	Coal	Yes	Within	N/A	135
THREE QUARTER	Coal	Yes	Within	N/A	126
THREE QUARTER	Coal	Yes	Within	N/A	126
THREE QUARTER	Coal	Yes	Within	N/A	129
YARD	Coal	Yes	5.2	North-East	113
YARD	Coal	Yes	Within	N/A	119
YARD	Coal	Yes	Within	N/A	127

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
YARD	Coal	Yes	Within	N/A	132
YARD	Coal	Yes	5.7	North-East	137

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Fault under or close to the property recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

There are 1 claim(s) within 50 metres of the property boundary that do not match the property address. These are shown on the enquiry boundary plot.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required, please visit www.groundstability.com.

See Section 4 for further information.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is in an area where a notice to withdraw support was given in 1943.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

Coal mining subsidence

The site is within an area of previous interest. It is close to where the Coal Authority or licensed mine operator has investigated and where necessary remediated issues relating to coal mining subsidence.

The site requires further investigation and may influence your risk assessment. We recommend that you order the appropriate **Coal Authority Subsidence Claims Report**, which will include more information about the hazard.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

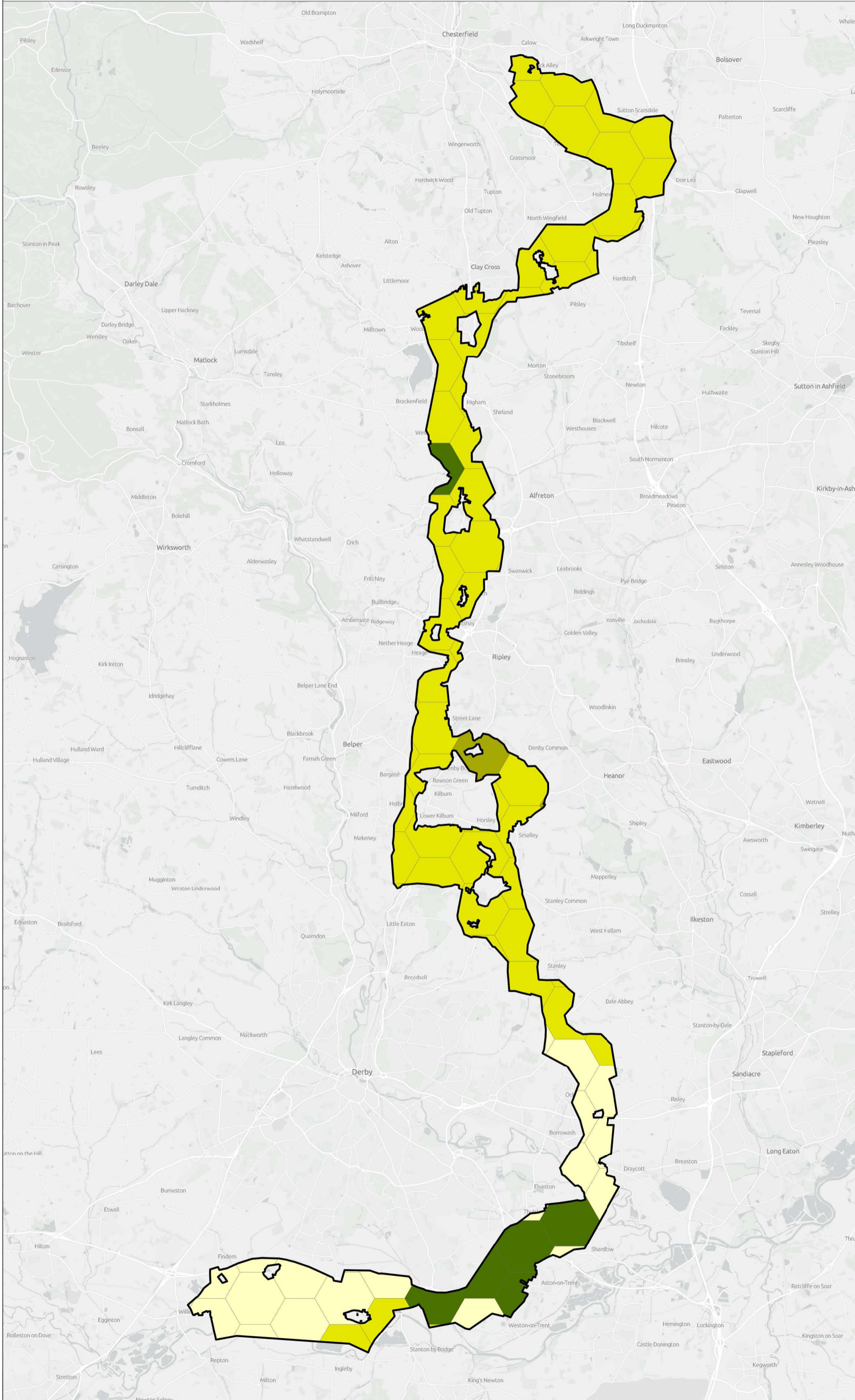
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

G. BGS 1km Hex-Grid Non-Coal Mining Hazards



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

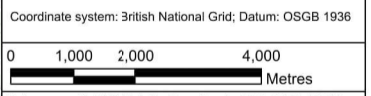
1 KM HEX MINING HAZARD NOT INCLUDING COAL



Legend

- Preferred corridor
- Mining hazard not including coal - BGS hazard potential classification**
 - Significant
 - Moderate
 - Low
 - NA

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.



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P02	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
1 KM HEX MINING HAZARD NOT INCLUDING COAL

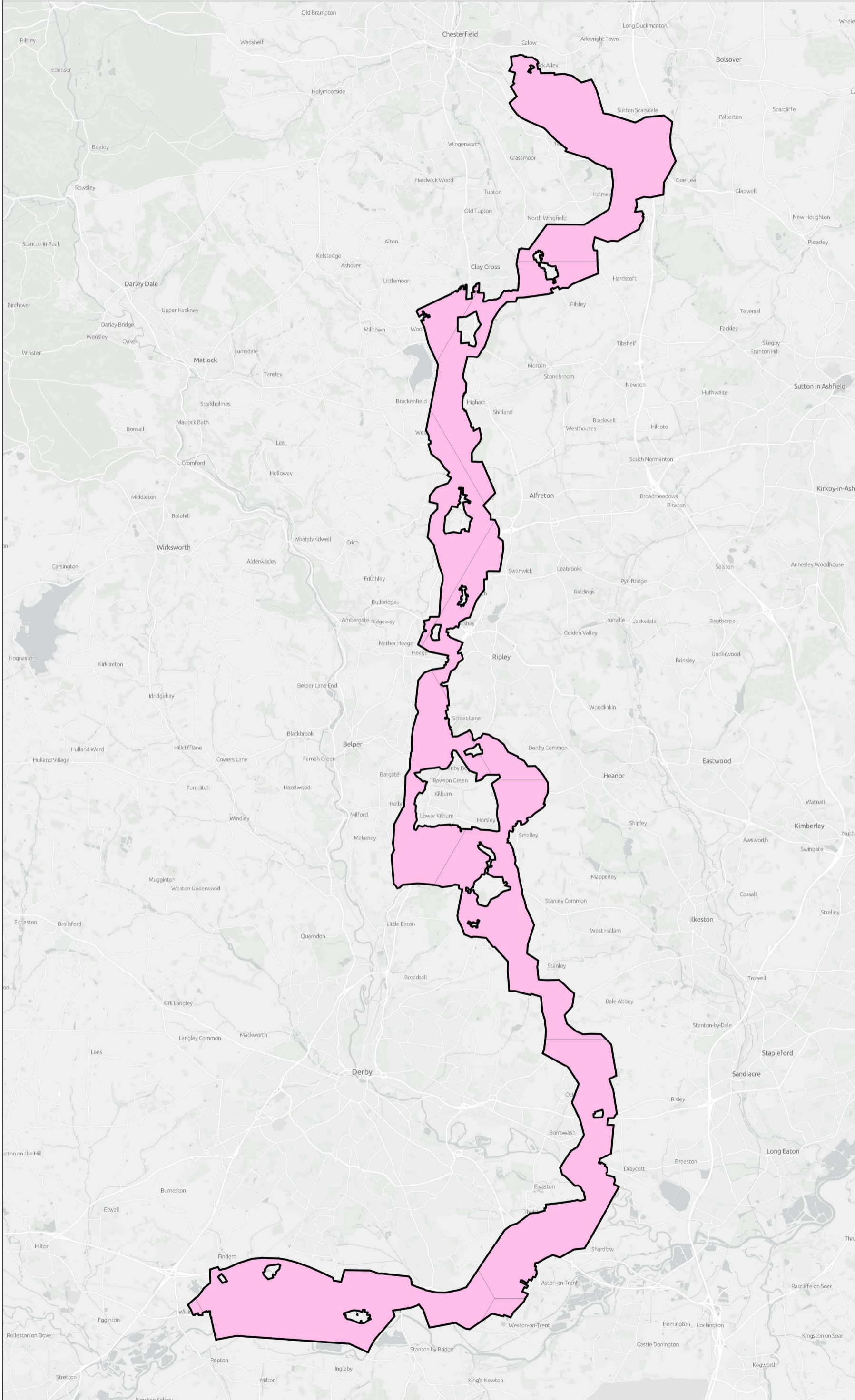
nationalgrid
Application Number: 10016272-0000-00-XX-DR-AR-0015
National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

H. BGS GeoSure 5km Hex-Grid Ground Stability Hazards



CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
COLLAPSIBLE DEPOSITS

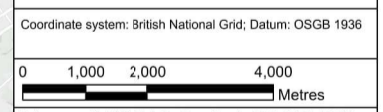


Legend

- Preferred corridor
- Collapsible deposit - hazard susceptibility *
 - Low

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
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Issue	Date	Remarks	Drawn	Checked	Approved
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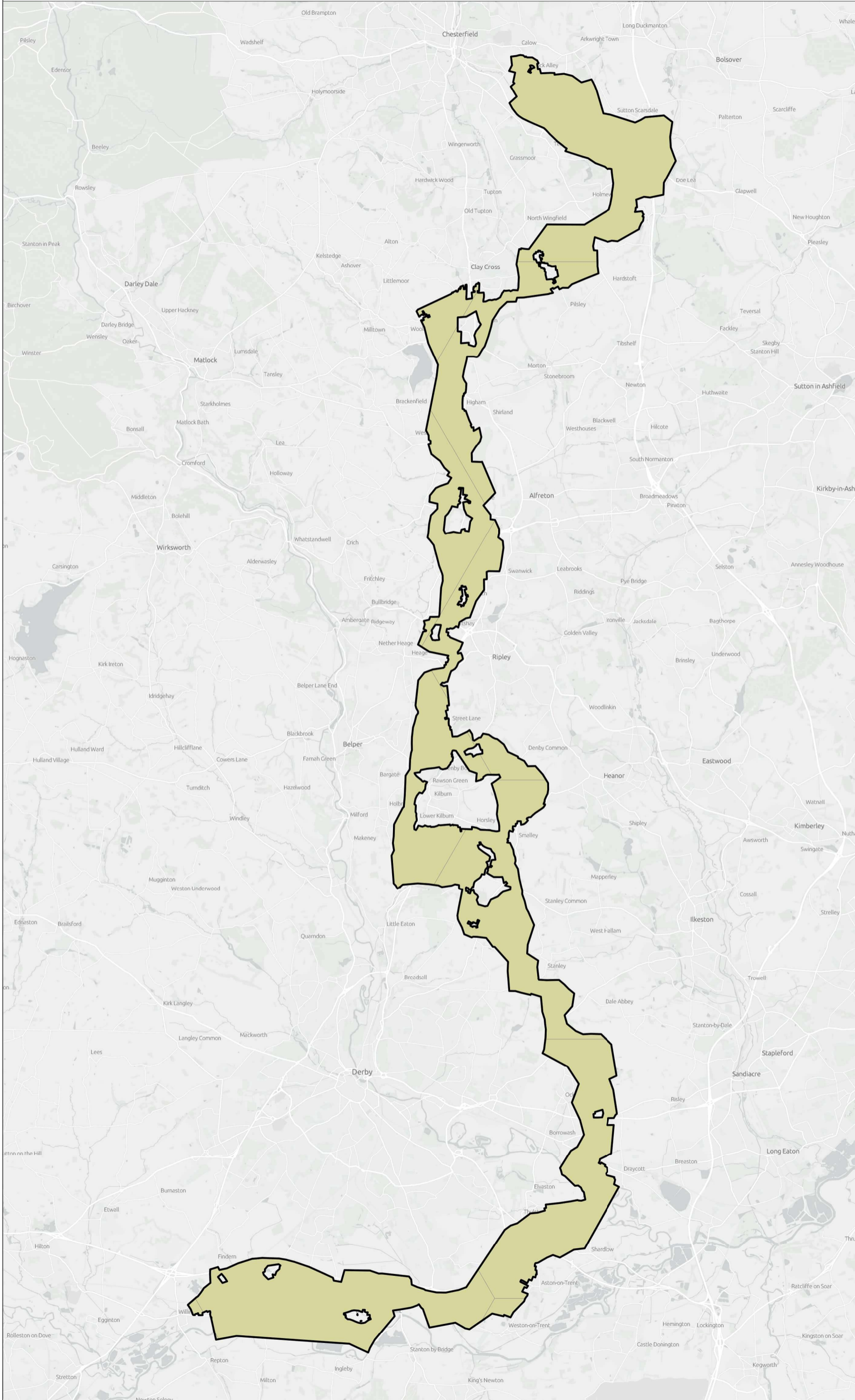
Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
COLLAPSIBLE DEPOSITS

nationalgrid
Application Number: 10016272-0000-00-XX-DR-AR-0006
National Grid Drawing Reference



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CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
RUNNING SAND



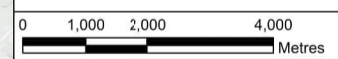
Legend

-  Preferred corridor
- Running sand - hazard susceptibility ***
-  Low

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.

Coordinate system: British National Grid; Datum: OSGB 1936



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P02	12/01/2024		CF	AO	LA

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
RUNNING SAND



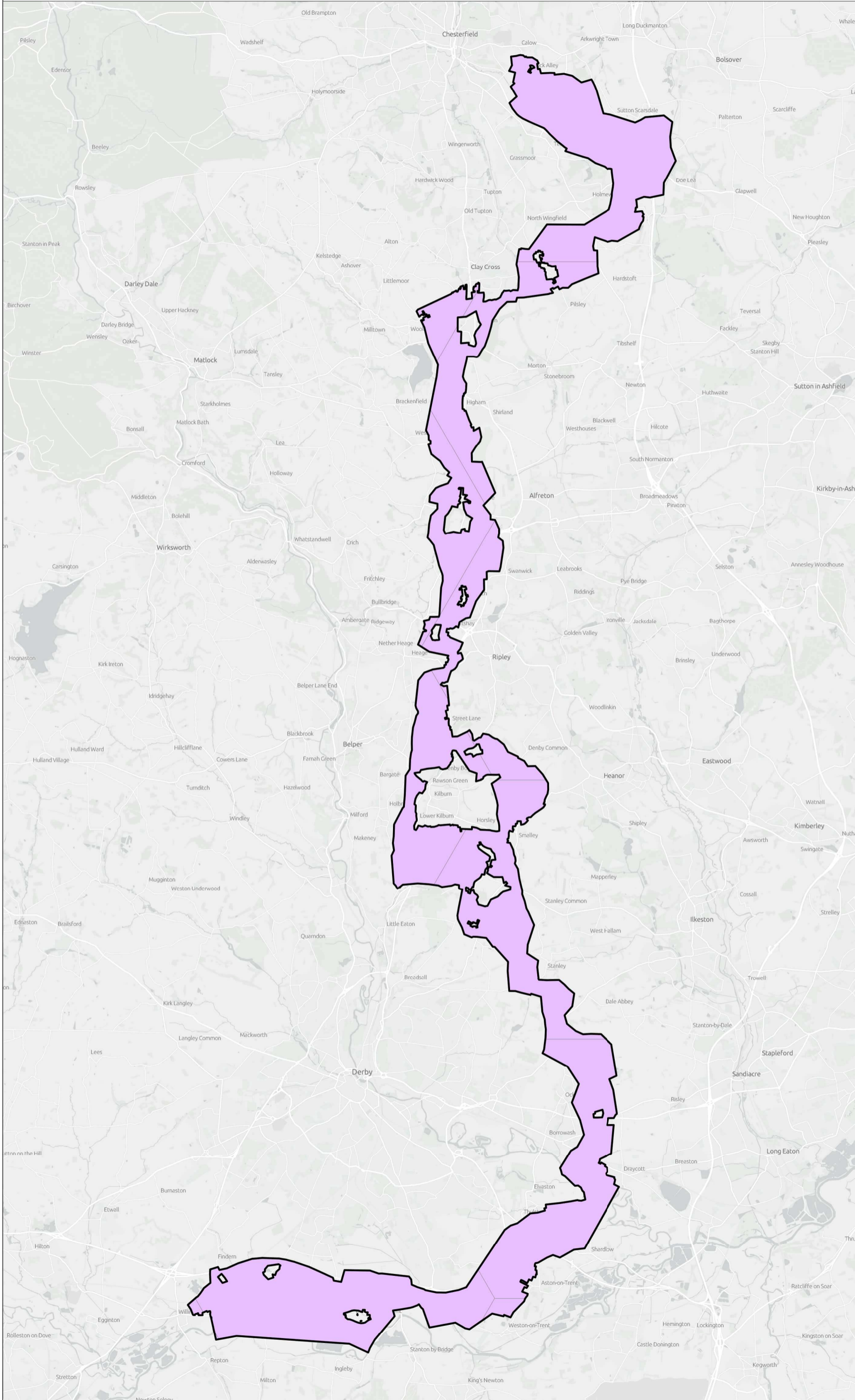
Application Number: 10015272-0000-00-XX-DR-AR-0009

National Grid Drawing Reference

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CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
SOLUBLE ROCKS



Legend

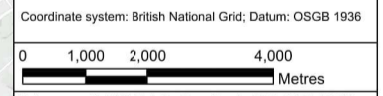
Preferred corridor

Soluble rock - hazard susceptibility *

Low

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
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P02	12/01/2024		CF	AO	LA

Title

CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
SOLUBLE ROCKS

nationalgrid

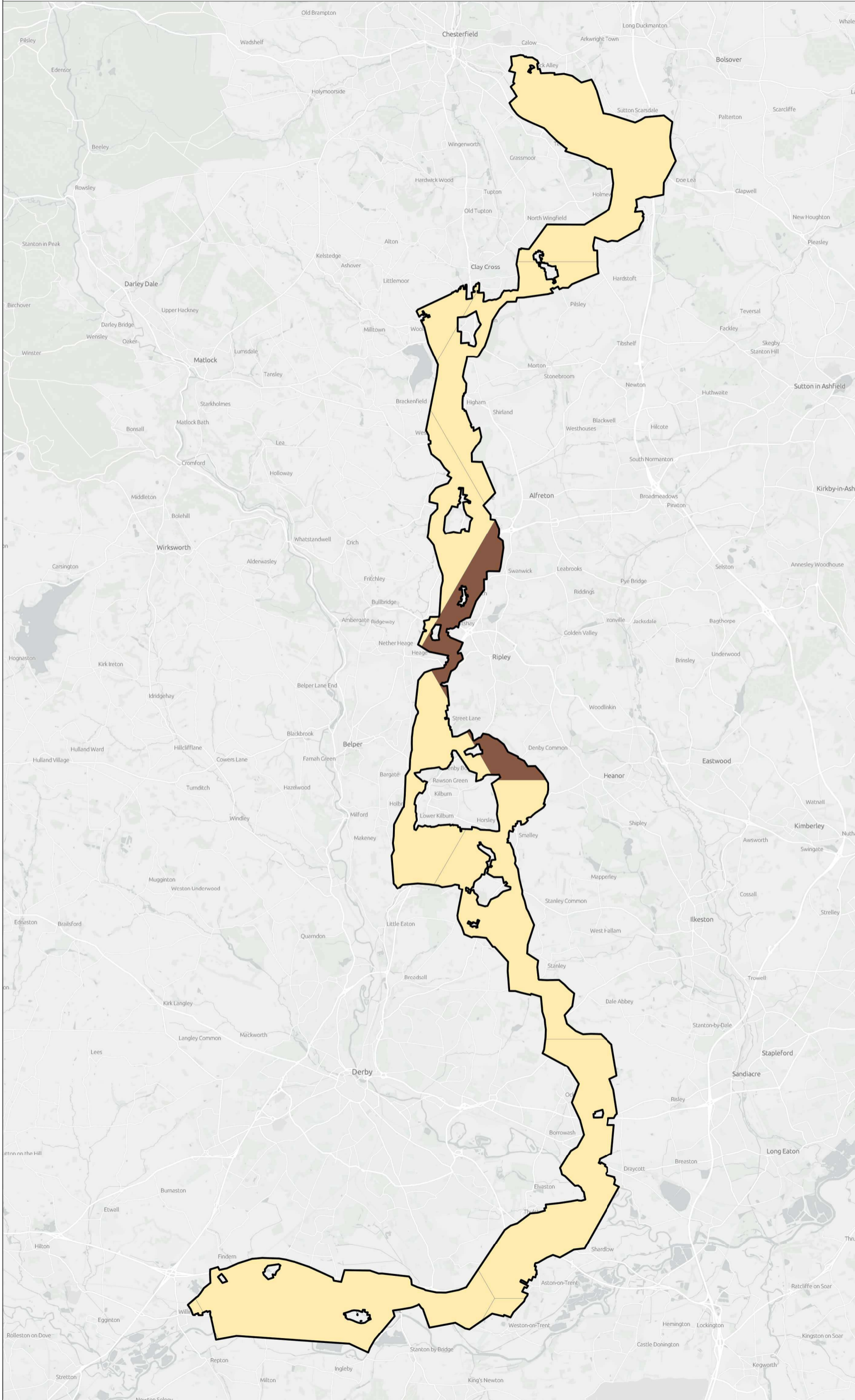
Application Number
10016272-0000-00-XX-DR-AR-0010

National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
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CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
COMPRESSIBLE GROUND



Legend

Preferred corridor

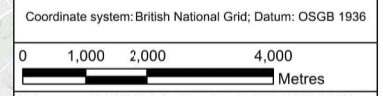
Compressible ground - hazard susceptibility *

Low

Significant

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
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PO2	Date	Remarks	Drawn	Checked	Approved
P02	12/01/2024		CF	AO	LA

Title

CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
COMPRESSIBLE GROUND

nationalgrid

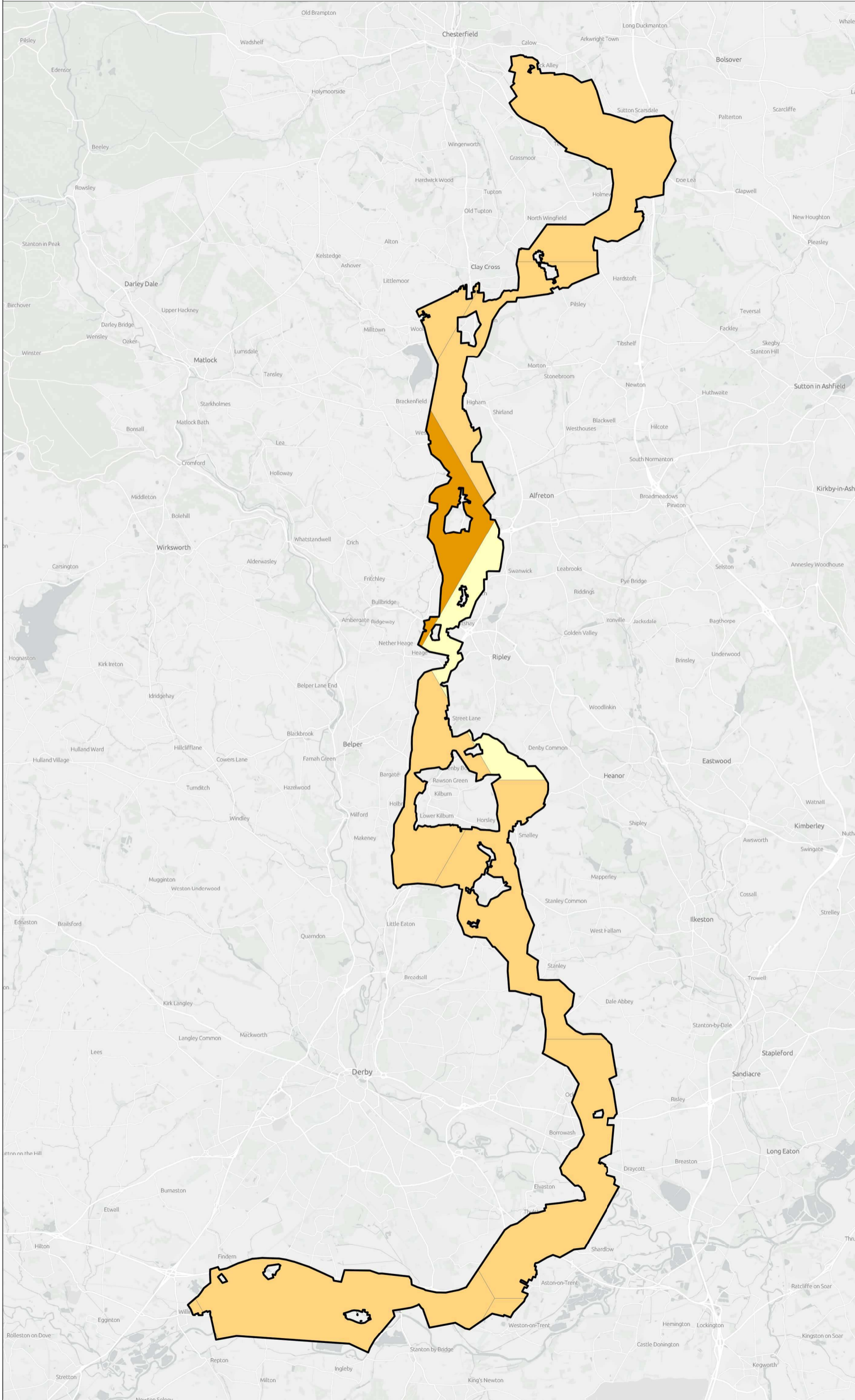
Application Number
10015272-0000-00-XX-DR-AR-0007

National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
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CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
LANDSLIDES



Legend

Preferred corridor

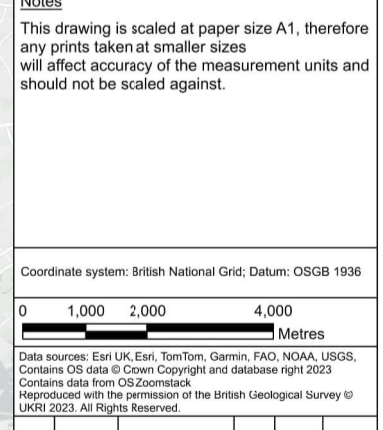
Landslides - hazard susceptibility *

- Low
- Moderate
- Significant

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
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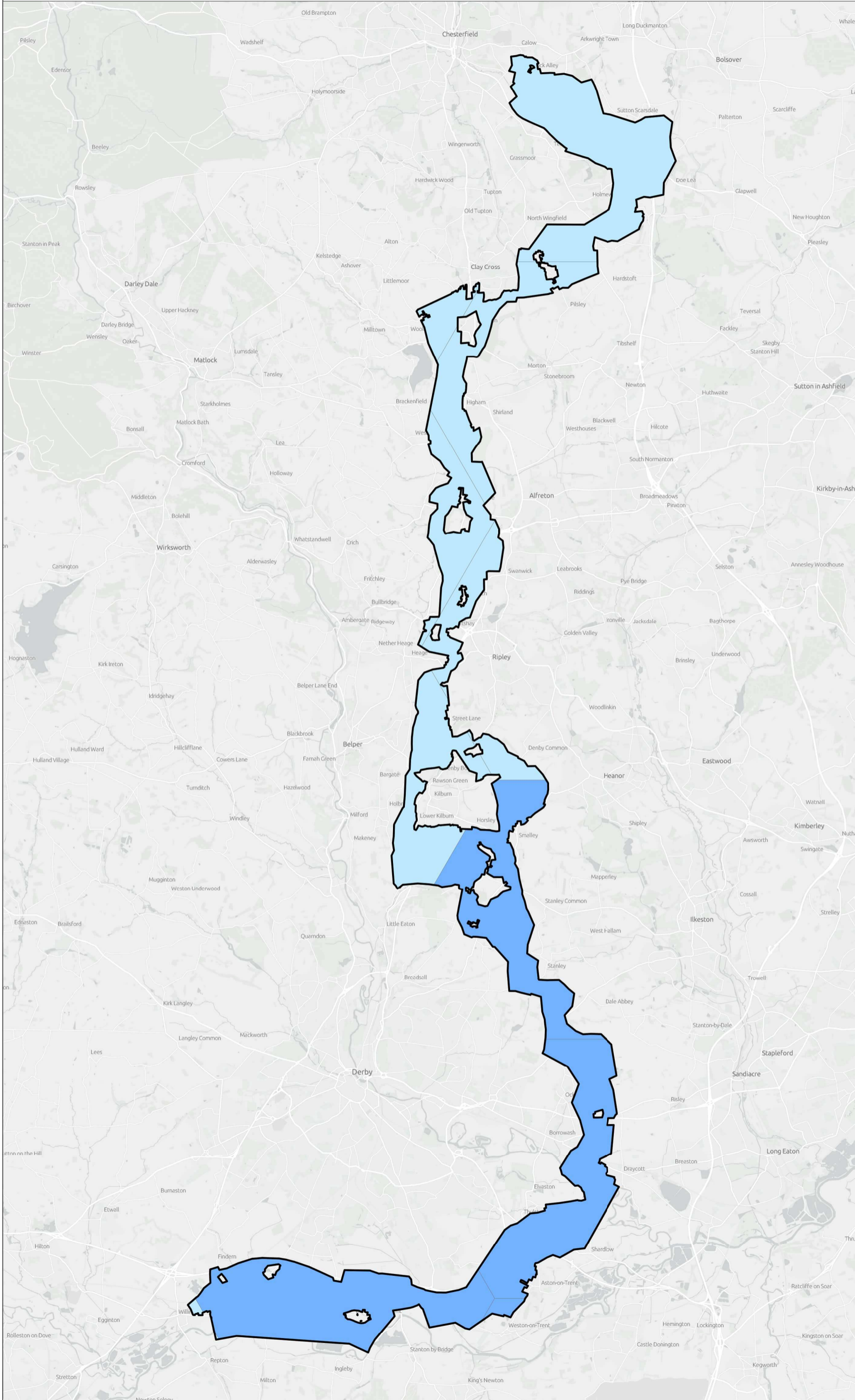
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
P02	12/01/2024	CF	AO	LA	
Issue	Date	Remarks	Drawn	Checked	Approved
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Application Number 10015272-0000-00-XX-DR-AR-0008					
National Grid Drawing Reference					
Scale 1:60,000	Sheet Size A1	Sheet SHEET 1 OF 1	Issue P02		



CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
SHRINK SWELL

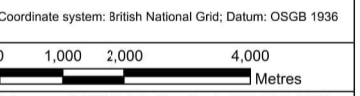


Legend

-  Preferred corridor
- Shrink swell - hazard susceptibility *
-  Low
-  Moderate

* Rating methodology based on the British Geological Survey Digital Map (DiGMapGB-50). The rating applied to each quadrant is based on the highest level of risk/hazard susceptibility described in the BGS mapping within that quadrant.

Notes
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Issue	Date	Remarks	Drawn	Checked
				Approved

Title
CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
BGS GEOSURE 5 KM HEX
SHRINK SWELL

nationalgrid
Application Number
10015272-0000-00-XX-DR-AR-0017
National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02

I. Listed Buildings and Scheduled Monuments

Table I.1: Listed Buildings within the Corridor.

ID	Name	Location	Grade	Grid Reference
1	OLD HALL FARMHOUSE	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32932 28918
2	TWYFORD HALL	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32760 28374
3	Church of St Andrew	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	I	SK 32741 28551
4	CHURCH OF ALL SAINTS	South Wingfield, Amber Valley, Derbyshire, DE55	II*	SK 38326 55778
5	RAILWAY BRIDGE TO THE SOUTH EAST OF DALE BRIDGE	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38669 56368
6	WALL BETWEEN WINGFIELD STATION FROM END OF THE FRONT BOUNDARY TO THE STATIONMASTER'S HOUSE	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38496 55723
7	Wingfield Station	South Wingfield, Amber Valley, Derbyshire, DE55	II*	SK 38510 55754
8	CANAL BRIDGE AT OS 321300	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32108 30058
9	OUTBUILDING TO NORTH OF AMBER HOUSE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38865 56947
10	FORMER FRIENDS MEETING HOUSE AND SCHOOL, TOADHOLE FURNACE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 3891956947
11	THREE BRIDGES AT SMITHYMOOR NR STRETTON STATION	Stretton, North East Derbyshire, Derbyshire, DE55	II	SK 38719 61419
12	PIGEONCOTE 3 MILES SOUTH-WEST OF OLD FORGE COTTAGE	Stretton, North East Derbyshire, Derbyshire, DE55	II	SK 38116 60037
13	OUTBUILDING TO NORTH OF AMBER FARMHOUSE	Wessington, North East Derbyshire, Derbyshire, DE55	II	SK 38620 56980
14	MILE POST 10 METRES SOUTH EAST OF CARR HILL FARMHOUSE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 39231 57921
15	BOBBIN MILEPOST SOUTH OF THE COTTAGE	Draycott and Church Wilne, Erewash, Derbyshire, DE72	II	SK 43570 34885
16	TRENT AND MERSEY CANAL SWARKESTONE LOCK AND BRIDGE	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 37156 29167
17	LOWES FARMHOUSE AND ATTACHED FARM BUILDINGS	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 36433 29354
18	TRENT AND MERSEY CANAL, CANAL MILEPOST TO SOUTH OF MASSEY'S BRIDGE AT SK 381 284	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 38122 28462
19	MOOR FARM COTTAGE (SOUTH) AND ATTACHED OUTBUILDING	Shardlow and Great Wilne, South Derbyshire, Derbyshire, DE72	II	SK 42766 30830
20	GRANGE FARMHOUSE	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32694 28510
21	RANGE OF OUTBUILDINGS TO NORTH OF TWYFORD HALL	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32758 28405

ID	Name	Location	Grade	Grid Reference
22	OLD HALL COTTAGE	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II*	SK 32911 28928
23	THE OLD SCHOOL HOUSE	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32645 28817
24	THE GRANGE	Barrow upon Trent, South Derbyshire, Derbyshire, DE73	II	SK 34900 28626
25	ARLESTON HOUSE FARMHOUSE	Barrow upon Trent, South Derbyshire, Derbyshire, DE73	II	SK 33697 29639
26	TRENT AND MERSEY CANAL DEEP DALE BRIDGE NUMBER 17 AT SK 3485 2923	Barrow upon Trent, South Derbyshire, Derbyshire, DE73	II	SK 34893 29248
27	MILL AT HIGHAM DAIRY FARM	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38703 58394
28	SWAN FARMHOUSE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 39044 60457
29	AMBER FARMHOUSE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38632 56955
30	RUINS OF HEATH OLD CHURCH	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 45230 67108
31	THE THATCHED COTTAGE	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 44731 66981
32	OWLCOTES FARMHOUSE AND ATTACHED GARDEN WALL	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 44222 68037
33	FURNACES AT MORLEY PARK IRON WORKS, MORLEY PARK	Ripley, Amber Valley, Derbyshire, DE5	II*	SK 37998 49190
34	MILEPOST 20 METRES WEST OF DENBY POTTERY WORKS	Denby, Amber Valley, Derbyshire, DE5	II	SK 39149 47460
35	PARK HALL FARMHOUSE	Denby, Amber Valley, Derbyshire, DE5	II*	SK 38155 47366
36	COXBENCH HALL AND ATTACHED STABLEBLOCKS	Holbrook, Amber Valley, Derbyshire, DE21	II	SK 37041 43504
37	Church of St Clement	Horsley, Amber Valley, Derbyshire, DE21	I	SK 37538 44498
38	FARMBUILDINGS TO NORTH-WEST OF CASTLE FARMHOUSE	Horsley, Amber Valley, Derbyshire, DE21	II	SK 37354 43156
39	GRANGE COTTAGE	Horsley, Amber Valley, Derbyshire, DE21	II	SK 37482 43720
40	MILEPOST	Pentrich, Amber Valley, Derbyshire, DE5	II	SK 38245 53405
41	CONEYGREY FARMHOUSE	Pentrich, Amber Valley, Derbyshire, DE5	II	SK 38584 53844
42	ROAD BRIDGE TO THE SOUTH WEST OF ST MATTHEWS CHURCH	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38259 55733
43	RAILWAY BRIDGE SOUTH OF SOUTH WINGFIELD STATIONMASTER'S HOUSE	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38469 55649
44	DALE BRIDGE	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38648 56393
45	OUTBUILDINGS AND ATTACHED GINGANG AT BIRCHWOOD FARM	Holbrook, Amber Valley, Derbyshire, DE21	II	SK 36753 43316
46	THE SOPHIA WATER FOUNTAIN AT SK 376 445	Horsley, Amber Valley, Derbyshire, DE21	II	SK 37641 44489

ID	Name	Location	Grade	Grid Reference
47	CASTLE FARMHOUSE	Horsley, Amber Valley, Derbyshire, DE21	II	SK 37393 43128
48	GARDEN WALL AND TOWERS AT STAINSBY HOUSE	Horsley Woodhouse, Amber Valley, Derbyshire, DE7	II	SK 40401 44229
49	HANDLEY LODGE FARMHOUSE AND ATTACHED OUTBUILDINGS AND GARDEN WALL	Clay Cross, North East Derbyshire, Derbyshire, S45	II	SK 37960 62274
50	GATEWAY AND ATTACHED WALL TO NORTH OF AMBER FARMHOUSE	Wessington, North East Derbyshire, Derbyshire, DE55	II	SK 38627 56992
51	BARN TO NORTH OF AMBER FARMHOUSE	Wessington, North East Derbyshire, Derbyshire, DE55	II	SK 38616 57013
52	MILEPOST AT SK 414 315 SOUTH OF THULSTON GRANGE	Elvaston, South Derbyshire, Derbyshire, DE72	II	SK 41401 31505
53	MOOR FARM COTTAGE (NORTH)	Shardlow and Great Wilne, South Derbyshire, Derbyshire, DE72	II	SK 42712 30980
54	TRENT AND MERSEY CANAL LOWES BRIDGE	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 36489 29065
55	TRENT AND MERSEY CANAL, CANAL MILEPOST AT SWARKESTONE STOP SK 368 291	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 36818 29108
56	TRENT AND MERSEY CANAL OUTBUILDING TO EAST OF CANAL TOLL HOUSE AT SWARKESTONE STOP	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 36900 29114
57	THE CROFT	Morley, Erewash, Derbyshire, DE7	II	SK 39123 42439
58	MORLEYMOOR FARMHOUSE	Morley, Erewash, Derbyshire, DE7	II	SK 39062 42245
59	AMBASTON GRANGE FARMHOUSE	Elvaston, South Derbyshire, Derbyshire, DE72	II	SK 43370 31820
60	CASTLE FARMHOUSE AND ATTACHED BARN	Stretton, North East Derbyshire, Derbyshire, DE55	II	SK 37943 60718
61	Amber Hill Bridge	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38729 56883
62	WALL AND ATTACHED OUTBUILDING SOUTH OF TWYFORD CHURCH	Twyford and Stenson, South Derbyshire, Derbyshire, DE73	II	SK 32709 28484
63	Thurlaston Grange	Elvaston, South Derbyshire, Derbyshire, DE72	II	SK 41393 31702
64	TRENT AND MERSEY CANAL, CANAL TOLL HOUSE AT SWARKESTONE STOP	Swarkestone, South Derbyshire, Derbyshire, DE73	II	SK 36891 29114
65	LITTLE LONDON FARMHOUSE	Ockbrook and Borrowash, Erewash, Derbyshire, DE72	II	SK 43391 37220
66	GATEPIERS AND GARDEN WALLS TO PARK HALL FARMHOUSE	Denby, Amber Valley, Derbyshire, DE56	II	SK 38122 47343
67	OLD POST BOX OPPOSITE HORSLEY SCHOOL	Horsley, Amber Valley, Derbyshire, DE21	II	SK 37789 44454
68	STATIONMASTER'S HOUSE AT WINGFIELD STATION	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38506 55719
69	FURNACE HOUSE	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38970 56857
70	AMBER HOUSE AND ATTACHED MILL	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38886 56925
71	CHURCH OF ALL SAINTS	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 44822 67079

ID	Name	Location	Grade	Grid Reference
72	HIGH HOUSE FARMHOUSE	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 43696 67543
73	ALCOVE AND ATTACHED WALL NORTH OF OWLCOTES FARMHOUSE	Heath and Holmewood, North East Derbyshire, Derbyshire, S44	II	SK 44161 68089
74	Hills Bridge (SPC8 63)	Brackenfield, North East Derbyshire, Derbyshire, DE55	II	SK 38545 58363
75	Nooning Lane Bridge (SPC6 12)	Draycott and Church Wilne, Erewash, Derbyshire, DE72	II	SK 43190 33700
76	Ogston Lane Bridge (SPC8 65)	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38493 59684
77	Beatties Bridge (SPC8 55)	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38238 54453
78	Holmes Water Bridge (SPC8 64)	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38459 58743
79	South Wingfield Footpath Bridge (SPC8 56)	South Wingfield, Amber Valley, Derbyshire, DE55	II	SK 38410 55459
80	Amber Mill Bridge (SPC8 61)	Shirland and Higham, North East Derbyshire, Derbyshire, DE55	II	SK 38764 56904
81	Alfreton Stream Bridge (SPC8 60)	Wessington, North East Derbyshire, Derbyshire, DE55	II	SK 38708 56530
82	Clay Cross Tunnel South Portal (SPC8 68P1)	Clay Cross, North East Derbyshire, Derbyshire, S45	II	SK 38899 62819

Table I.2: Scheduled Monuments within the Corridor.

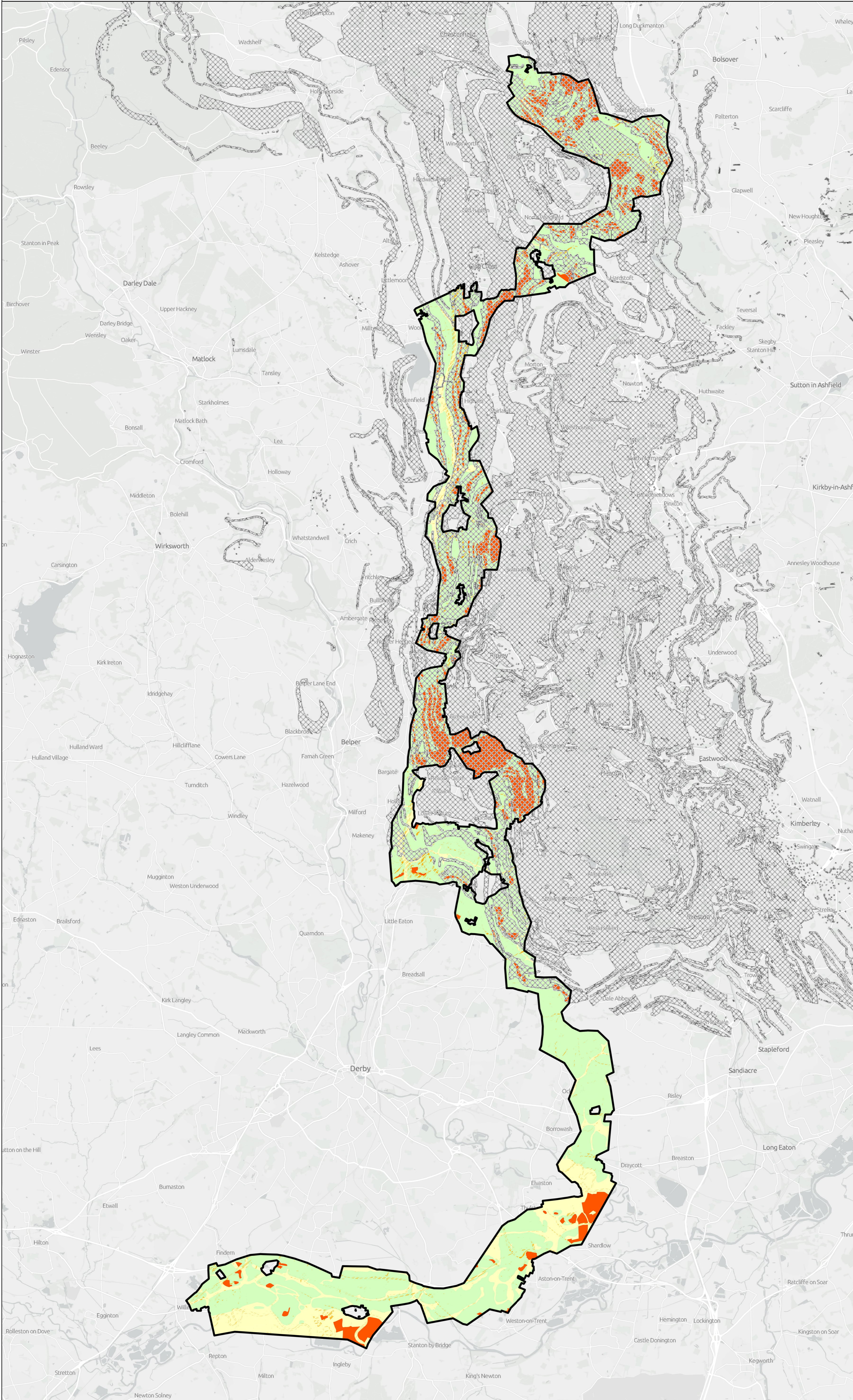
ID	Name	NGR
1	Settlement site and enclosures	SK 31988 29045
2	Morley Park Works	SK 38002 49189
3	Castle Hill camp	SK 38579 54129
4	Horsley Castle tower keep castle	SK 37580 43204
5	Twyford henge and Round Hill bowl barrow	SK 33335 28341
6	Stainsby defended manorial complex including site of chapel	SK 44909 65638
7	Swarkestone Lows round barrow cemetery and part of an aggregate field system 300m northwest of The Lowes Farm	SK 36710 29503

J. Corridor Heatmap



CHESTERFIELD TO WILLINGTON EAST HIGH LEVEL GEOTECHNICAL DESK STUDY

HEATMAP



Legend

- Preferred corridor
- Constraint Categorisation**
- 1 - Very low constraint to development
- 2 - Low constraint
- 3 - Moderate constraint
- 4 - High constraint
- 4 - High constraint (based on Coal Authority Development High Risk Area)
- 4 - High constraint (based on slope above 20%)
- 5 - Very high constraint

Notes

This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.

Coordinate system: British National Grid; Datum: OSGB 1936

0 1,000 2,000 4,000 Metres

Coordinate system: British National Grid; Datum: OSGB 1936
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PO2	12/01/2024	CF	AO	LA
Issue	Date	Remarks	Drawn	Checked

Title

CHESTERFIELD TO WILLINGTON EAST
HIGH LEVEL GEOTECHNICAL DESK STUDY
HEATMAP

Application Number: 100115272-0000-00-XX-DR-AR-0004

National Grid Drawing Reference

Scale	Sheet Size	Sheet	Issue
1:60,000	A1	SHEET 1 OF 1	P02



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