

WRITTEN SCHEME OF INVESTIGATION

Stoneshollow, Nailstone, Leicestershire

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Nailstone,
Leicestershire
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SUMMARY AND SCOPE OF DOCUMENT

A Written Scheme of Investigation (WSI) was prepared by RPS, on behalf of JBM Solar Projects (now RWE), for a programme of archaeological fieldwalking and excavation to comply with the requirements of the Local Planning Authority prior to the construction of a new solar farm with battery storage and associated infrastructure on land between Barlestone and Nailstone, Leicestershire (Hinckley and Bosworth Council reference 21/01395/FUL).

The c.100 ha site comprises a mixture of arable and pasture land located within a valley in the parishes of Nailstone and Barlestone (centred on SK 422 067). The site is bounded by Nailstone to the north, Bagworth Road (B585) and further agricultural fields to the east, Barlestone to the south, and the A447 (Hinckley Road) to the west. The Booson Brook flows through the base of the valley which rises to c.140m Above Ordnance Datum (AOD) towards Nailstone and c.135m AOD towards Barlestone.

Planning Background

Planning Permission for the 'installation and operation a of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, point of connection mast, switchgear container, inverter/transformer units, Site access, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements' was granted by Hinckley and Bosworth Borough Council (Application reference 21/01395/FUL).

The planning committee recommend the following two conditions for archaeology.

'7. Part 1 - No development shall take place within the area indicated the whole site until a programme of archaeological work has been secured and implemented, in accordance with a Written Scheme of Investigation which has been submitted to and approved in writing by the Local Planning Authority.

Part 2 - The solar farm shall not be brought into operation until the site investigation and post investigation assessment has been completed, submitted to and approved in writing by the Local Planning Authority, in accordance with the programme set out in the Written Scheme of Investigation approved under Part 1 of this condition, and the provision made for analysis, publication and dissemination of results and archive deposition.

8. Part 1 - Prior to any development on site commencing, a detailed site plan including Archaeological Exclusion Zones will be submitted to and approved by the Local Planning Authority. Following the approval and completion of the archaeological evaluation referred to in Condition 7, and prior to the commencement of development, a final detailed site layout plan with full details of the final locations, design and materials to be used for the panel arrays, inverters, customer switchgear, substations, CCTV cameras, fencing, foundations and cabling will be submitted for approval. Should the archaeological evaluation identify any significant archaeological deposits, the final detailed site layout plan will define archaeological exclusion zones within which below and above ground development will be excluded or provide sufficient design mitigation including but not limited to the use of above ground cables, concrete shoes or other means to avoid any impact on archaeological deposits if required. The final detailed site layout plan shall be submitted to and approved in writing by the Local Planning Authority, in consultation with the County Council's Lead Archaeologist. Subsequently the development shall be carried out in accordance with the approved details.

Part 2 - If there are archaeological areas to be preserved in situ, a management plan will be produced for any archaeological areas to be preserved in situ, setting out the methodology to secure the ongoing protection of these areas both during construction, operation and decommissioning of the solar farm.

Archaeological Background

Evaluation trenching (Archaeology Warwickshire 2023) was carried out on site in 2022. The trenching involved the excavation of 268 trenches, 20 of which, contained a total of 27 archaeological features. These included a cluster of undated features in Trench 113, some of which contained heat affected pebbles potentially representing Prehistoric activity such as a burnt mount, a probable Iron Age gully associated with a possible roundhouse in Trench 219, and a metalled surface in Trench 49. On the surface within the plough soils, worked flint dating from the late Mesolithic to early Bronze Age were recovered, within two fields at the northern end of the site.

Following submission of the evaluation trenching report to the Local Planning Authority, the Senior Planning Archaeologist (Heritage) confirmed the need for further archaeological work, comprising:

- Systematic fieldwalking carried out in 10m transects within two fields at the northern end of the site;
- excavation of a 30m x 1.8m trench directly northeast of Trench 49 to confirm the extent of the metalled surface, and
- the excavation of a 30m x 30m area focused at feature 21902 in Trench 219 and the excavation of a 50m x 50m area focused at Trench 113.

With the exception of 30m x 30m area focused at feature 21902 in Trench 219, all of the above works were completed in August – September 2023. Adverse weather and unsuitable ground conditions prevented access to the area of Trench 219. Consequently, excavation of a 30m x 30m area focused at feature 21902 in Trench 219 has been postponed until suitable access can be installed as part of the enabling works for construction of the solar farm.

Scope of Document

This document encompasses the approved WSI for the works outlined above, dated 18.08.2023 and a revised WSI for the excavation of a 30m x 30m area focused at feature 21902 in Trench 219, dated 18.10.2023.

Excavation of the 30m x 30m area is expected to be completed in advance of construction in late spring/early Summer 2024.

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1 INTRODUCTION

Site Location and Description

- 1.1 This Written Scheme of Investigation has been prepared by RPS, on behalf of JBM Solar Projects, for a programme of archaeological fieldwalking and excavation to comply with the requirements of such works by the Local Planning Authority prior to the construction of a new solar farm with battery storage and associated infrastructure on land between Barlestone and Nailstone, Leicestershire (Hinckley and Bosworth Council reference 21/01395/FUL).
- 1.2 The c.100 ha site comprises a mixture of arable and pasture land located within a valley in the parishes of Nailstone and Barlestone (centred on SK 422 067). The site is bounded by Nailstone to the north, Bagworth Road (B585) and further agricultural fields to the east, Barlestone to the south, and the A447 (Hinckley Road) to the west. The Booson Brook flows through the base of the valley which rises to c.140m Above Ordnance Datum (AOD) towards Nailstone and c.135m AOD towards Barlestone.

Geology, Soils and Topography

- 1.3 The British Geological Survey (BGS) 1:50,000 records the bedrock geology of the site as Gunthorpe Member mudstone (<https://geologyviewer.bgs.ac.uk>). The BGS records and the trenching record the overlying superficial deposits comprise clay, silt, sand and gravel alluvium following the brook, with sand and gravel and silty clays within the remaining areas of the site (<https://geologyviewer.bgs.ac.uk>).
- 1.4 The Cranfield Soil and Agrifood Institute identifies the soils of the study site as slowly permeable, seasonally wet, slightly acidic but base-rich loamy and clayey soils (Soilscape 18; <http://www.landis.org.uk/soilscapes>). Trenching confirmed soils confirm a top and subsoil, with combined depths recorded between 0.25m – 0.55m.

Planning Background

- 1.5 Planning Permission for the 'installation and operation a of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, point of connection mast, switchgear container, inverter/transformer units, Site access, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements' was granted by Hinckley and Bosworth Borough Council (Application reference 21/01395/FUL).
- 1.6 The planning committee recommend the following two conditions for archaeology.
- '7. Part 1 - No development shall take place within the area indicated the whole site until a programme of archaeological work has been secured and implemented, in accordance with a Written Scheme of Investigation which has been submitted to and approved in writing by the Local Planning Authority. The scheme of investigation shall include an assessment of significance and research questions; and*
- The programme and methodology of site investigation and recording;*
 - The programme for post investigation assessment;*
 - Provision to be made for analysis of the site investigation and recording;*
 - Provision to be made for publication and dissemination of the analysis and records of the site investigation;*

- Provision to be made for archive deposition of the analysis and records of the site investigation;
- Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation;
- The site investigation shall be completed prior to development, or in such other phased arrangement, as agreed and approved in writing by the Local Planning Authority.

Part 2 - The solar farm shall not be brought into operation until the site investigation and post investigation assessment has been completed, submitted to and approved in writing by the Local Planning Authority, in accordance with the programme set out in the Written Scheme of Investigation approved under Part 1 of this condition, and the provision made for analysis, publication and dissemination of results and archive deposition.

8. Part 1 - Prior to any development on site commencing, a detailed site plan including Archaeological Exclusion Zones will be submitted to and approved by the Local Planning Authority. Following the approval and completion of the archaeological evaluation referred to in Condition 7, and prior to the commencement of development, a final detailed site layout plan with full details of the final locations, design and materials to be used for the panel arrays, inverters, customer switchgear, substations, CCTV cameras, fencing, foundations and cabling will be submitted for approval. Should the archaeological evaluation identify any significant archaeological deposits, the final detailed site layout plan will define archaeological exclusion zones within which below and above ground development will be excluded or provide sufficient design mitigation including but not limited to the use of above ground cables, concrete shoes or other means to avoid any impact on archaeological deposits if required. The final detailed site layout plan shall be submitted to and approved in writing by the Local Planning Authority, in consultation with the County Council's Lead Archaeologist. Subsequently the development shall be carried out in accordance with the approved details.

Part 2 - If there are archaeological areas to be preserved in situ, a management plan will be produced for any archaeological areas to be preserved in situ, setting out the methodology to secure the ongoing protection of these areas both during construction, operation and decommissioning of the solar farm.

- 1.7 Evaluation trenching (Archaeology Warwickshire 2023) was carried out on site in 2022. The trenching involved the excavation of 268 trenches, 20 of which, contained a total of 27 archaeological features. These included a cluster of undated features in Trench 113, some of which contained heat affected pebbles potentially representing Prehistoric activity such as a burnt mount, a probable Iron Age gully associated with a possible roundhouse in Trench 219, and a metalised surface in Trench 49. On the surface within the plough soils, worked flint dating from the late Mesolithic to early Bronze Age were recovered, within two fields at the northern end of the site.

Archaeological and Historical Background

- 1.8 The archaeological potential of the site has been evaluated through a Heritage Statement (RPS 2021), an archaeological geophysical survey undertaken in 2021 (Carrozzo and Wilkinson 2021) and a programme of evaluation trenching carried out in 2022 (Archaeology Warwickshire 2023).
- 1.9 The evaluation trenching encountered recorded 27 archaeological features including a cluster of undated features in Trench 113, some of which contained heat affected pebbles potentially representing Prehistoric activity such as a burnt mount, a probable Iron Age gully associated with a possible roundhouse in Trench 219, and a metalised surface in Trench 49. Medieval to Post Medieval agricultural activity were also recorded, comprising ploughed out remains of ridge and

furrow across the northern half of the site, and evidence of a Post Medieval water meadow system along the valley floor.

- 1.10 Worked flint dating from the late Mesolithic to the early Bronze Age, with the later flints indicative of settlement activity (Bevan 2022 as cited by Archaeology Warwickshire 2023), were recovered from the plough soils within two fields at the northern end of the site.

Scope of Document

- 1.11 Following submission of the evaluation trenching report to the Local Planning Authority, the Senior Planning Archaeologist (Heritage) confirmed the need for further archaeological work (Figure 2), comprising the following:
- Systematic fieldwalking carried out in 10m transects within two fields at the northern end of the site, and
 - excavation of a 30m x 1.8m trench directly northeast of Trench 49 to confirm the extent of the metalled surface, and
 - the excavation of a 30m x 30m area focused at feature 21902 in Trench 219 and the excavation of a 50m x 50m area focused at Trench 113.
- 1.12 Dependent on the results of the above, further archaeological mitigation work may be required by the Senior Planning Archaeologist (Heritage). Should further mitigation works be required following the above, then additional Project Design(s) will be produced as appendices to this Written Scheme of Investigation in compliance with the condition of the consent.
- 1.13 All such Project Designs will be submitted to Senior Planning Archaeologist (Heritage) and the local planning authority for approval.

Aims and Objectives

- 1.14 Localised areas of the site are of archaeological interest and a programme of archaeological work is required to define the character and extent of archaeological remains that exist in these areas.
- 1.15 The current programme of archaeological work is intended to determine as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains associated with Mesolithic to Bronze Age flint scatter, the possible Prehistoric features in Trenches 113 and 214 and the undated metalled surface.
- 1.16 The archaeological work will also seek to clarify the nature and extent of any existing disturbance and intrusions, assess the artefactual and environmental potential of any archaeological deposits encountered and assess the degree of archaeological survival of any buried remains of archaeological significance. The archaeological work will produce a site archive for deposition with an appropriate museum and to provide information for accession to the Leicester and Rutland Historic Environment Record.
- 1.17 The works will help to inform discussions over the extent and scope of any further mitigation works that are appropriate.

Research Framework

- 1.18 The programme of archaeological investigation will be conducted within the general research parameters and objectives defined by the East Midlands Historic Environment Research Framework (available online at: <https://researchframeworks.org/emherf/>).
- 1.19 A number of project-specific research aims have been formulated from the research framework, which comprise.

- Strategic Objective 2A: Enhance understanding of the environmental background to Mesolithic activity.
- Strategic Objective 2B: Characterise the regional and local evidence for Mesolithic activity.
- Strategic Objective 2C: Investigate further the earlier Mesolithic lithic resource.
- Research Agenda 3.2.2: 3.2.2: Can we discern continuities or discontinuities in the distributions of later Mesolithic and earlier Neolithic lithic scatters?
- Strategic Objective 4C: Characterise the Late Bronze Age and Early Iron Age settlement resource and investigate intra-regional variability.

Standards

- 1.20 This specification conforms to the requirements of the National Planning Policy Framework (MHCLG 2021), and the current Historic England Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (published on 25th March 2015). It has been designed in accordance with the following:
- Management of Archaeological Projects (Historic England 2015b)
 - Code of Conduct, as revised (CIfA 2021)
 - Standard and Guidance for Archaeological Field Evaluations, as revised (CIfA 2020b)

2 METHODOLOGY

General

- 2.1 RPS will inform Leicestershire Senior Planning Archaeologist (Heritage) in advance of the commencement of fieldwork.
- 2.2 The work shall be carried out by appropriately qualified and experienced staff from Oxfordshire Archaeology. Details of staff numbers, their roles and relevant experience will be confirmed with the planning archaeologist once details are known. Staff CVs will be provided on request. Any sub-contracted specialists will be subject to the same provisions.
- 2.3 The Project Manager and any other supervisory staff will ensure that all members of the project team are appropriately informed as to the project's methodologies, planning context, historic environment background and specific objectives. As a minimum all members of the team will have read the brief and this Written Scheme of Investigation.

Fieldwalking

- 2.4 Fieldwalking transects to intended to determine the potential for recovery of prehistoric flint artefacts should be spaced at 10m apart across fields A and B. Each flint should be plotted with a GPS, in line with the Historic England guidance on managing lithic scatters (Historic England 2020a and 2020b). This approach will inform selection of target areas for a more detailed grid-based search, if the results justify it.
- 2.5 The detailed grid-based search should comprise a 50m-by-50m grid, sub-divided into 10m squares to be walked separately at 1m intervals. Each flint would then be recorded 3-dimensionally to help inform any decision on further works.
- 2.6 The number and disposition of detailed grid search(es) would be agreed with the Senior Planning Archaeologist (Heritage)
- 2.7 The results of the detailed grid-based search will inform the nature and extent of final mitigation, to be determined in conjunction with the Senior Planning Archaeologist (Heritage).

Evaluation Trenching

- 2.8 Preceding any groundwork, the excavation area will be scanned for any uncharted underground services using a CAT. This will be undertaken by a suitable trained member of staff from the archaeological contractor or agent of the Client, depending upon the site schedule. Any potential services identified within the excavation area will be marked on the ground using spray paint to provide a surface visual. All plant movement will be undertaken in such a way as to avoid where possible or minimise tracking over identified services.
- 2.9 All plant movement will be via access routes agreed with the Client or their appointed site agent/principal contractor.
- 2.10 The precise locations of the trenches may be altered to take into account local ground conditions and constraints. Where unexpected constraints (e.g. additional active services) are encountered minor variations to trench layout may usually be made without consulting Senior Planning Archaeologist (Heritage). However, any substantive changes to the agreed strategy or trench plan will be agreed with Senior Planning Archaeologist (Heritage) before implementation.
- 2.11 Topsoil and overburden will be removed by mechanical excavator using a toothless ditching bucket (c.1.8m wide), under continuous archaeological supervision, in spits of no more than 0.1m.

- The spoil generated during the trial trenching will be mounded away from the edges of each trench – topsoil and subsoil will be mounded separately on either side of the trench.
- 2.12 Mechanical excavation will cease at either undisturbed natural deposits or the top of archaeological deposits. The nature of these deposits will be assessed by hand excavation. Upcast and spoil from mechanical excavation will be scanned by eye and by metal detector to aid the recovery of topsoil artefacts.
- 2.13 Each trench will be cleaned by hand as necessary to assist the identification and interpretation of exposed archaeological features and the nature of identified features assessed by sample excavation sufficient to determine date, nature, extent and condition and their environmental and scientific potential. All exposed features will be investigated (unless otherwise agreed by the Planning Archaeologist). Discrete features - e.g. infilled pits - will be half- or quarter-sectioned; as a minimum (where possible) and a 1m wide section of each linear feature will be excavated by hand.
- 2.14 Trenches will be shored or stepped as necessary to prevent collapse. All excavation by machine and hand will be undertaken with a view to avoid damaging archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than for the purposes of evaluation. Where structures, features or finds appear to merit preservation in situ, they must be adequately protected from deterioration. Should any unexpected discoveries of significant or complex remains be revealed, the Planning Archaeologist will be notified at the earliest opportunity.
- 2.15 Trenches will seek to characterise the full archaeological sequence down to undisturbed deposits. It is also expected that all exposed features and key relationships will be investigated in accordance with agreed sampling strategies. Selective excavation will only be permissible in agreement with Senior Planning Archaeologist (Heritage), with professional judgement and site monitoring visits used to inform strategies.
- 2.16 All excavation by machine and hand will be undertaken with a view to avoid damaging archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than is possible within the limitations of trial trenching. Where structures, features or finds appear to merit preservation in situ, they will be adequately protected from deterioration. Should any unexpected discoveries of significant or complex remains be revealed, Senior Planning Archaeologist (Heritage) will be notified at the earliest opportunity.
- 2.17 Should it be required, there may be certain instances where sample excavation of features / deposits is necessary, beyond evaluation purposes, in order to maximise information on function, date and depth. This should be at the discretion of the site supervisor, but the intention should also be communicated to and agreed with the consultant who will inform the Planning Archaeologist.
- 2.18 A base plan will be produced at a suitable scale using dGPS. Spot heights and those of individual features, structures etc. will be recorded relative to the Ordnance Datum.
- 2.19 Upon completion of the evaluation trenching, excavated trenches will be backfilled with arisings and loosely compacted. Trenches will not be backfilled without prior agreement with the Planning Archaeologist.
- 2.20 In the event of unexpectedly significant archaeology being revealed, the archaeological contractor will immediately inform the consultant who will notify the Planning Archaeologist.

Open Area Excavation

- 2.21 Stripping of the excavation area will be conducted using a 360-degree machine fitted with a toothless ditching bucket supervised by a suitably qualified and experienced archaeologist. Stripping will be supervised and controlled by the archaeological team to ensure that the archaeological horizon is exposed and is sufficiently clean to identify any archaeological features

present. The spoil generated during the excavation will be removed - by dumper if required - and mounded away from the edges of the stripped area. The archaeological team will ensure that the movement of the dumpers does not impact upon the mitigation areas through rutting. Mechanical excavation will cease at either undisturbed natural deposits or when archaeological features are identified. The nature of these deposits will be assessed by hand excavation.

- 2.22 Upcast and spoil from mechanical excavation will be scanned by eye and by metal detector to aid the recovery of artefacts.
- 2.23 The excavation area will be cleaned with hand tools (hoe and trowel) as necessary to assist the identification and interpretation of exposed archaeological features and the nature of identified features assessed by excavation.

Feature Class	Proportion to be excavated
Pre-modern linear features not associated with structural remains	10% of fill, to include terminals, intersections, unusual deposits
Pits associated with agricultural & other activities	50% of fill
Layers/ deposits/horizontal stratigraphy relating to domestic/industrial activity [e.g. hearths, floor surfaces, floor make-up deposits...]	100% of deposit
Post-built structures of pre-modern date	100% of each post-hole fill
Domestic ring ditches or roundhouse gullies	50% of fill
Linear features (ditches/gullies...) associated with structural remains	20% of fill, to include terminals, intersections, unusual deposits
Human burials, cremations & other deposits relating to funerary activity	100% of fill/deposit
Prehistoric discrete pits	100% of fill/deposit

Recording

- 2.24 The trenches will be recorded at a suitable appropriate scale (1:100, 1:50 or 1:20) by digital planning (where resultant plans and illustrations are of a sufficient standard) or measured drawing, and by photography, and will be located to the Ordnance Survey National Grid. The deposits encountered will be described fully on individual context recording sheets. The sections of excavated archaeological features will also be recorded by measured drawing at an appropriate scale (normally 1:10 or 1:20). Spot heights and those of individual features will be recorded relative to Ordnance Datum, in metres.
- 2.25 A photographic record utilising high resolution digital data capture will be maintained during the course of the fieldwork. Photography will include:
- the site prior to commencement of fieldwork;
 - the site during work, showing specific stages of fieldwork;
 - the layout of archaeological features within each trench;
 - individual features and, where appropriate, their sections;
 - groups of features where their relationship is important;
 - and, where appropriate, rectified digital photography.
- 2.26 All photography will follow the archaeological contractor's guidance which conforms to industry best practice (ADS 2013, HE 2015). Images will be converted to uncompressed baseline v.6 TIFF for archiving. All images will have accompanying metadata specifying; photo ID, capture device, converting software, colour space, bit depth, resolution, date of capture, photographer, caption, and any alterations made to the image.

Finds

- 2.27 The finds retrieved from the site will be treated in accordance with industry best practice and guidance (Historic England 2005, 2006a and Watkinson and Neal 1998).
- 2.28 All artefacts from excavated contexts will be retained by the archaeological contractor, except for unstratified modern material. Artefacts will be bagged and labelled according to the individual deposit from which they were recovered, ready for later cleaning and analysis.
- 2.29 All finds as a minimum will be cleaned, weighed, counted and identified. Any artefacts requiring immediate stabilisation will be done so in line with First Aid for Finds (Watkinson and Neal 1998). Where warranted, metallic artefacts and residues will be submitted for X-radiography and stabilisation, in accordance with industry best practice (Historic England, 2006b).
- 2.30 For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken. Samples must be processed and sorted, and any artefacts recovered provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists.
- 2.31 Where material suitable for scientific dating is recovered, sufficient dating will be undertaken to meet the aims of the evaluation.
- 2.32 If finds are made that might constitute 'Treasure' under the definition of the Treasure Act (1996), these will if possible be archaeologically excavated and removed to a safe place. Such finds will also be reported immediately to the local Coroner (within 14 days, in accordance with the Act). Should it not be possible to remove the finds that day suitable security will be arranged.

Human Remains

- 2.33 Any human remains encountered will be cleaned with minimal disturbance, recorded and left in situ and only removed if necessary. Any human remains requiring removal will be done so following receipt of a Ministry of Justice licence. Investigation and excavation of human remains will be undertaken by, or under supervision of, suitably experienced specialist staff and in accordance with IFA Guidelines ("Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains" Roberts, C & McKinley, J 1993 – IFA Technical Paper 13; "Guidelines to the standards for recording human remains" ed Brickley, M & McKinley, J 2004 – IFA Paper 7).
- 2.34 Assessment of excavated human remains will be undertaken in line with current Historic England Guidelines ("Human Bones from archaeological sites: Guidelines for the production of assessment documents and analytical reports" Centre for Archaeology Guidelines 2004b). The archaeological contractor will comply with all reasonable requests of interested parties as to the method of removal, re-interment or disposal of the remains or associated items. Every effort will be made, at all times, not to cause offence to any interested parties.
- 2.35 The Client and the Planning Archaeologist will be informed immediately if human remains are discovered.

Environmental Samples

- 2.36 The environmental sampling strategy will include the routine sampling of deposits for the retrieval and assessment of the preservation conditions and potential for analysis of all biological or industrial remains. All environmental work will be undertaken in accordance with Historic England guidelines (Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (Second Edition), Historic England 2011). Sample sizes

will normally be 40 litres unless the deposit is smaller in volume. Samples will be directed to a representative range of context type from each phase, and examine:

- Survival of material
- Key archaeological contexts
- Potential

- 2.37 A suitable specialist will, if necessary, make a site visit to advise on deposits suitable for environmental sampling and/or geoarchaeological assessment.
- 2.38 Charred plant samples will be wet sieved with flotation using a 0.5mm mesh. All residues will be checked.
- 2.39 Should waterlogged deposits be encountered they will be left in situ until such a time as further mitigation works are required. If this is not possible then further consultation with a suitable specialist will determine methods for recovery.

Other Samples

- 2.40 Samples will be taken for scientific dating (principally radiocarbon dating), where dating by artefacts is insecure and where dating is necessary for development of the subsequent mitigation strategy. Where in situ timbers are found to survive in good condition, samples will be taken for dendrochronological determination following procedures presented in the Historic England (2004a) document 'Dendrochronology: guidelines on producing and interpreting dendrochronological dates'.
- 2.41 Where there is evidence for industrial activity, macroscopic technological residues (or a sample of them) should be collected by hand. Separate samples (c.10ml) should be collected for micro-slugs (hammer-scale and spherical droplets). Excavation and sampling of such deposits will be in accordance with the Centre for Archaeology Guideline on Archaeometallurgy (Historic England 2001).

3 REPORTING AND ARCHIVING

General

- 3.1 Unless otherwise agreed with the Planning Archaeologist, a report detailing the findings of the archaeological works will be prepared within six weeks of the completion of site works (dependant on receiving specialist reports) and will consist of:
- a title page detailing site address, site code and accession number, NGR, author/originating body, client's name and address
 - a copy of the OASIS form
 - an archive statement giving summary of contents, location, accession number and proposed date for final deposition
 - full contents listing
 - a non-technical summary of the findings of the investigation
 - an introductory statement
 - the aims and purposes of the archaeological work as outlined in this WSI
 - a description of the topography and geology of the area
 - a description of the methodologies used during the investigation
 - an objective summary statement of the findings
 - a site location plan and plans of each of the areas investigated showing the archaeological features exposed (to include AOD levels and to be tied into Ordnance Survey data)
 - all plans will be drawn at appropriate and accurate scales with north arrows and show the location of excavated sections and section drawings
 - sections of the excavated archaeological features (to include AOD levels, cardinal points and be located on the site plans which will be tied into Ordnance Survey data)
 - a phased stratigraphic discussion of the archaeological features
 - an interpretation of the archaeological features exposed and their local and regional context, including a statement of significance
 - specialist reports on the artefactual / ecofactual remains from the site
 - photographs to include general site images (including blank trenches) and key archaeological features, reproduced at reasonable size
 - a full context list [appendix]
 - full quantification of artefacts and ecofacts [appendix]
- 3.2 The report will look to assess the results of the archaeological fieldwork including where necessary the results of any specialist and scientific assessment/analysis and place the results within their local, regional and national context. The report should look to identify any potential research priorities where applicable.
- 3.3 Specialist reports will include recommendations for retention/discard of material.

Dissemination

- 3.4 Copies of the archaeological fieldwork report will be sent to the client for approval, and then the Planning Archaeologist. The digital submission to the Historic Environment Record will include the

full site report (in PDF/A-1a format). Digital photographs will be converted to uncompressed baseline v.6 TIFF for archiving. The OASIS online report form for the fieldwork will be updated and completed. A digital copy of the report will be uploaded to the OASIS site.

- 3.5 A draft copy of the report will be supplied to Planning Archaeologist for comment. Following approval of the draft report, one copy of the approved report will be provided to the LPA; one hardcopy and one digital copy will be supplied to the Leicestershire HER. Copies will also be uploaded as part of the OASIS database record.

Archive

- 3.6 An integrated project archive (including both artefacts/ecofacts and project documentation) will be prepared upon completion of the project. The integrated archive will be deposited with the Leicestershire Museum Service.
- 3.7 The archive of finds and records generated during the project will be kept secure at all stages of the project. All records and materials produced will be archived in accordance with industry best practice (Brown 2011, ClfA 2020c; 2020d, and SMA 1993). Condition and arrangements of the deposition of the archive will be obtained by the archaeological contractor from the Leicestershire Museum Service on the completion of the project.
- 3.8 In the event that artefacts are retrieved from the site, the transfer of the ownership of the finds will be made to the Leicestershire Museum Service, assuming the landowner gives their approval.
- 3.9 An online OASIS form at <http://www.oasis.ac.uk/> will also be completed as part of the project. This will be on the understanding that this information will be made available through the above website, unless otherwise agreed.

4 TIMETABLE, PERSONNEL AND MONITORING

Timetable

- 4.1 Advance notice of the confirmed start date and programme for the evaluation trenching work will be provided to the Planning Archaeologist.

Personnel

- 4.2 The archaeological works will be undertaken on behalf of the developer by a professional archaeological team from Oxford Archaeology a Registered Organisations with the Chartered Institute for Archaeologists.
- 4.3 Work on site will be led by a Project Officer / Project Supervisor from Oxford Archaeology, assisted by a team of assistants drawn from their permanent and temporary staff. Actual staff resources will be managed to ensure successful implementation of the programme of works. CVs of key personnel and specialists will be provided to the Planning Archaeologist on request.

Monitoring

- 4.4 The aims of monitoring are to ensure that the archaeological works are undertaken within the limits set by this specification, and to the satisfaction of the Planning Archaeologist.
- 4.5 An appointed consultant will monitor implementation of the programme of works on behalf of the developer.
- 4.6 The Planning Archaeologist will be given sufficient notice of when work is due to commence and will be free to visit the site by prior arrangement with the consultant. The Planning Archaeologist will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken on site against the methodology detailed in this specification.
- 4.7 The Planning Archaeologist will also be responsible for considering any changes to the specification of works; any such alterations will be agreed in writing with the relevant parties prior to commencement of onsite works, or at the earliest available opportunity.

5 INSURANCE AND HEALTH & SAFETY

Insurance

- 5.1 The archaeological contractor will hold Public Liability Insurance to the minimum value of £5m and Professional Indemnity Insurance to the minimum of £5m.

Health & Safety

- 5.2 All works will be in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice and the Construction Design Management Regulations 2007. All archaeological staff will undertake their operations in accordance with safe working practices.
- 5.3 A site-specific risk assessment and safety plan will be prepared before the start of the project and will be updated through the project as required.
- 5.4 A continuous process of dynamic risk assessment will be undertaken and if significant hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
- 5.5 If significant new hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
- 5.6 Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features or remains will be recorded by photography, at a safe distance.

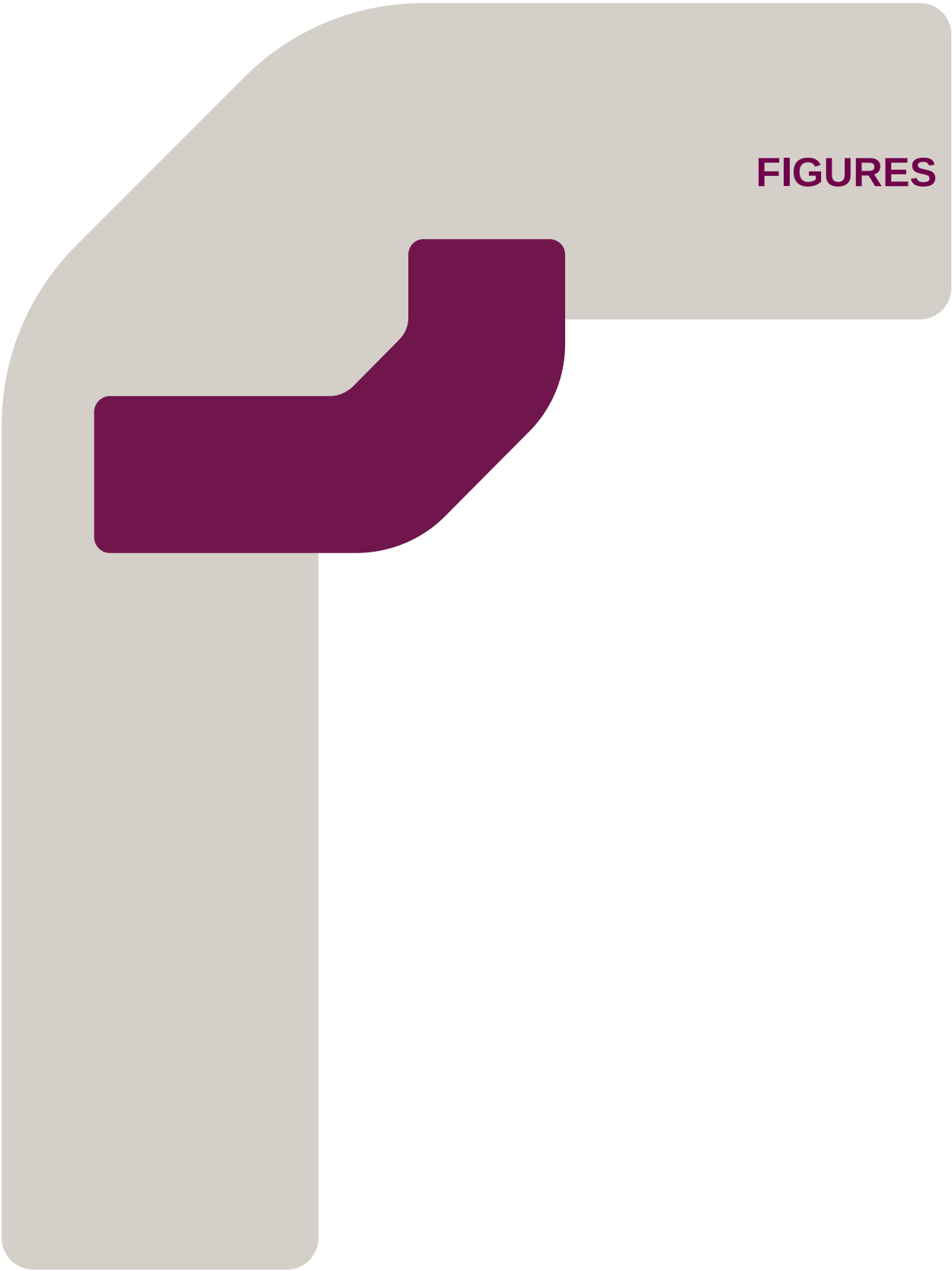
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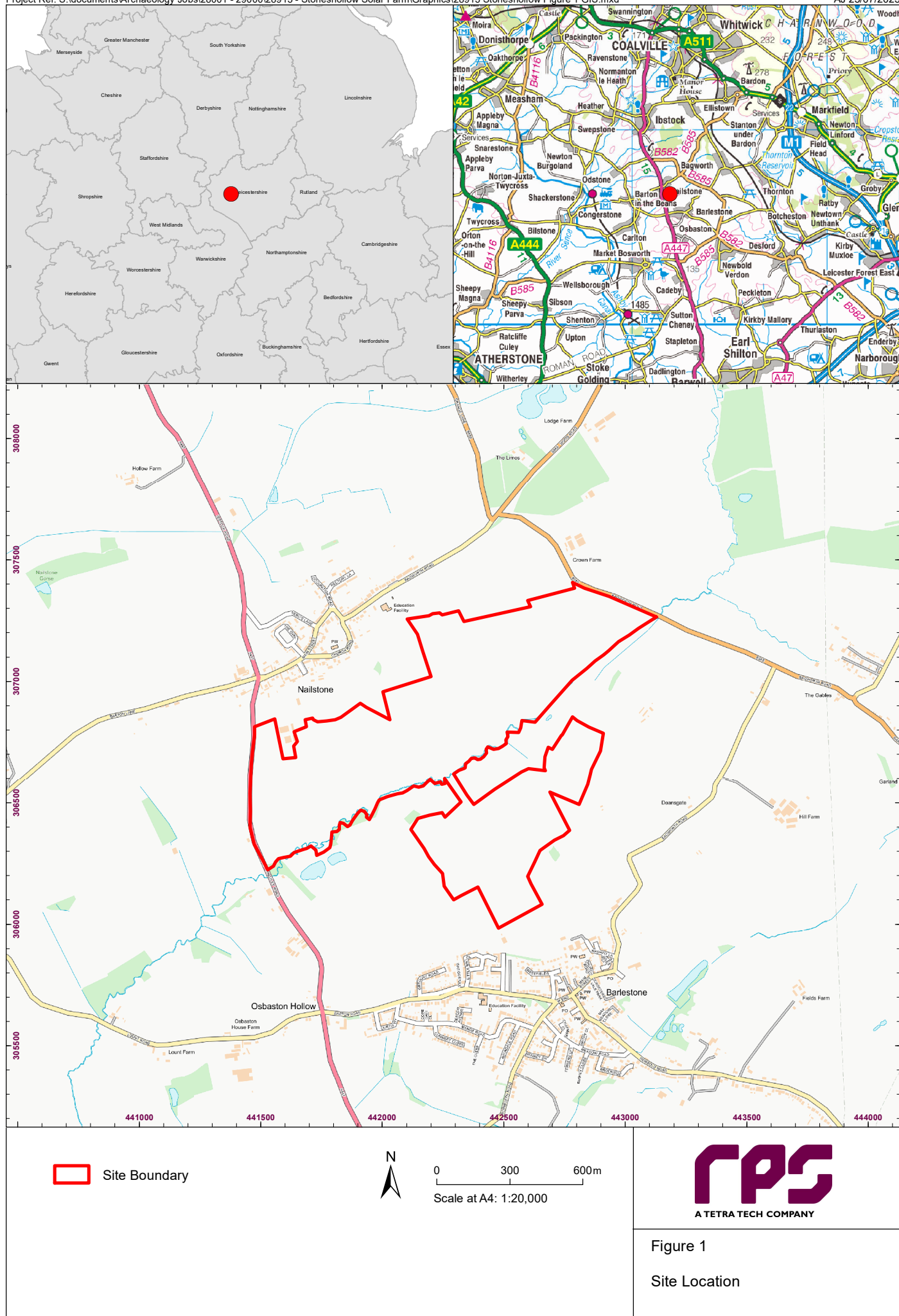
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FIGURES



441500

442000

442500

443000

443500

AJ: 25/07/2023

307000

306500

306000

Project Ref: S:\documents\Archaeology\Jobs\28001 - 29000\28913 - Stoneshollow Solar Farm\Graphics\28913 Stoneshollow GIS.mxd

SITE

Nailstone

BAGWORTH ROAD

- Site Boundary
- 30m x 1.8m Trench
- 30m x 30m Strip Area
- 50m x 50m Strip Area
- Fieldwalk Areas



0 100 200m
Scale at A4: 1:10,000

rps
A TETRA TECH COMPANY

Figure 2 Archaeological
Fieldwork Areas

Osbaston Hollow

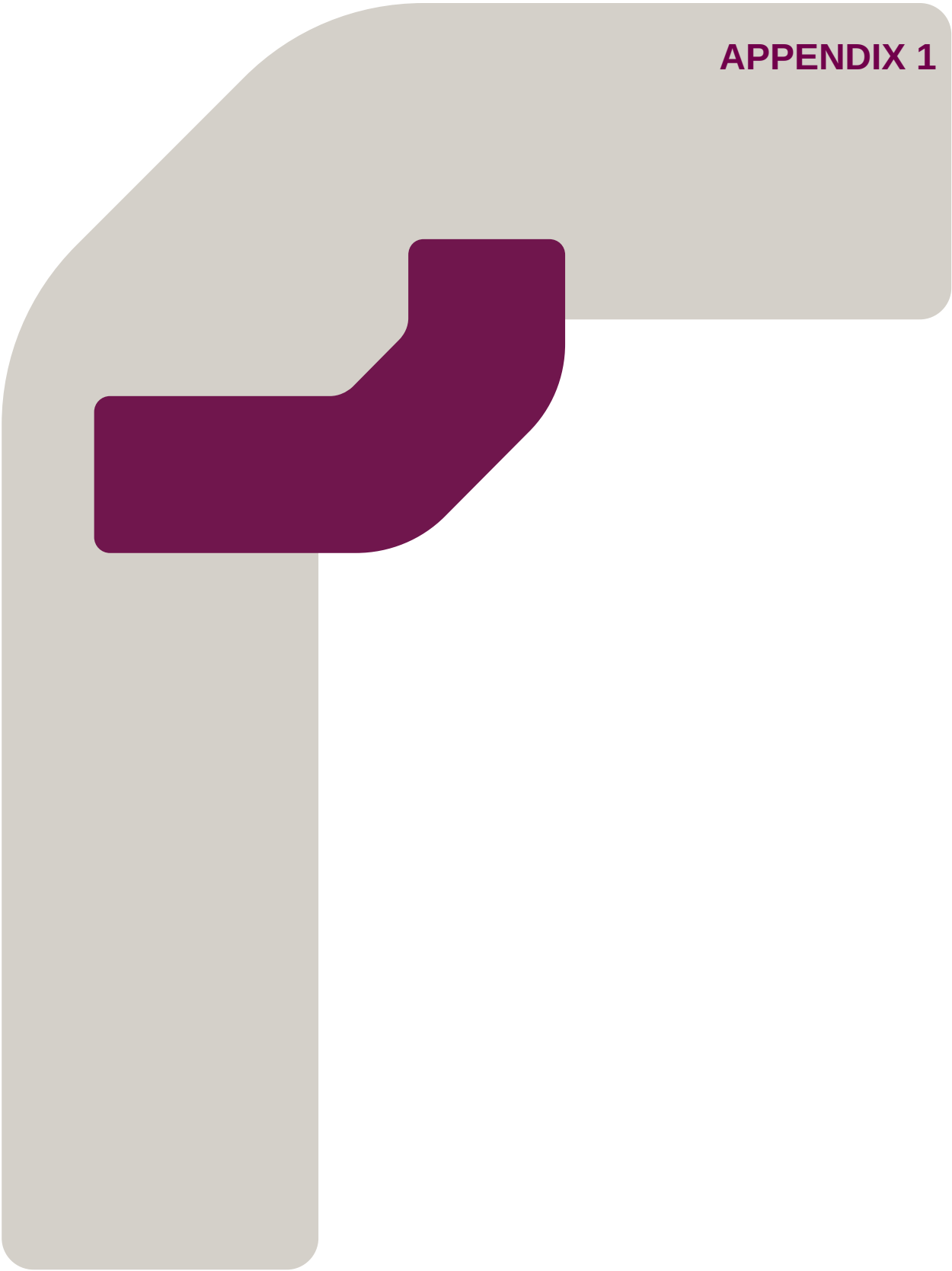
1000m

BARLESTON

Barleston

Fig 2: Location of trenches excavated with features of air

APPENDIX 1



Reduced WSI for the excavation of a 30m x 30m area focused on Trench 219

WRITTEN SCHEME OF INVESTIGATION

Stoneshallow, Nailstone, Leicestershire

JAC28913
Stoneshallow,
Nailstone,
Leicestershire
Version 3.0
October 2023

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
1.0	Draft	AJ	SMS	SMS	31.03.23
2.0	FINAL - revised with LCC comments	AJ	SMS	SMS	18.08.23
3.0	Reduced WSI for the excavation of a 30m x 30m area focused on Trench 219	AJ	SMS	SMS	18.10.23
3.1	Revised with client comments	SMS	SMS	SMS	17.11.23

Approval for issue

Sean Steadman



17 November 2023

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Prepared for:**JBM Solar Projects**

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1 INTRODUCTION,

Site Location and Description

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by RPS, on behalf of JBM Solar Projects. It supersedes a previous WSI, prepared in August 2023 for a programme of archaeological fieldwalking and excavation. The majority of the archaeological works detailed in that WSI were completed in September & October 2023.
- 1.2 This WSI describes a programme of archaeological investigation on the remaining 30m x 30m area focused on Trench 219, to comply with the requirements of such works by the Local Planning Authority prior to the construction of a new solar farm with battery storage and associated infrastructure on land between Barlestone and Nailstone, Leicestershire (Hinckley and Bosworth Council reference 21/01395/FUL).
- 1.3 The c.100 ha site comprises a mixture of arable and pasture land located within a valley in the parishes of Nailstone and Barlestone (centred on SK 422 067). The site is bounded by Nailstone to the north, Bagworth Road (B585) and further agricultural fields to the east, Barlestone to the south, and the A447 (Hinckley Road) to the west. The Booson Brook flows through the base of the valley which rises to c.140m Above Ordnance Datum (AOD) towards Nailstone and c.135m AOD towards Barlestone.

Geology, Soils and Topography

- 1.4 The British Geological Survey (BGS) 1:50,000 records the bedrock geology of the site as Gunthorpe Member mudstone (<https://geologyviewer.bgs.ac.uk>). The BGS records and the trenching record the overlying superficial deposits comprise clay, silt, sand and gravel alluvium following the brook, with sand and gravel and silty clays within the remaining areas of the site (<https://geologyviewer.bgs.ac.uk>).
- 1.5 The Cranfield Soil and Agrifood Institute identifies the soils of the study site as slowly permeable, seasonally wet, slightly acidic but base-rich loamy and clayey soils (Soilscape 18; <http://www.landis.org.uk/soilscapes>). Trenching confirmed soils confirm a top and subsoil, with combined depths recorded between 0.25m – 0.55m.

Planning Background

- 1.6 Planning Permission for the 'installation and operation a of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, point of connection mast, switchgear container, inverter/transformer units, Site access, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements' was granted by Hinckley and Bosworth Borough Council (Application reference 21/01395/FUL).
- 1.7 The planning committee recommend the following two conditions for archaeology.
- '7. Part 1 - No development shall take place within the area indicated the whole site until a programme of archaeological work has been secured and implemented, in accordance with a Written Scheme of Investigation which has been submitted to and approved in writing by the Local Planning Authority. The scheme of investigation shall include an assessment of significance and research questions; and*
- *The programme and methodology of site investigation and recording;*
 - *The programme for post investigation assessment;*

- *Provision to be made for analysis of the site investigation and recording;*
- *Provision to be made for publication and dissemination of the analysis and records of the site investigation;*
- *Provision to be made for archive deposition of the analysis and records of the site investigation;*
- *Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation;*
- *The site investigation shall be completed prior to development, or in such other phased arrangement, as agreed and approved in writing by the Local Planning Authority.*

Part 2 - The solar farm shall not be brought into operation until the site investigation and post investigation assessment has been completed, submitted to and approved in writing by the Local Planning Authority, in accordance with the programme set out in the Written Scheme of Investigation approved under Part 1 of this condition, and the provision made for analysis, publication and dissemination of results and archive deposition.

8. Part 1 - Prior to any development on site commencing, a detailed site plan including Archaeological Exclusion Zones will be submitted to and approved by the Local Planning Authority. Following the approval and completion of the archaeological evaluation referred to in Condition 7, and prior to the commencement of development, a final detailed site layout plan with full details of the final locations, design and materials to be used for the panel arrays, inverters, customer switchgear, substations, CCTV cameras, fencing, foundations and cabling will be submitted for approval. Should the archaeological evaluation identify any significant archaeological deposits, the final detailed site layout plan will define archaeological exclusion zones within which below and above ground development will be excluded or provide sufficient design mitigation including but not limited to the use of above ground cables, concrete shoes or other means to avoid any impact on archaeological deposits if required. The final detailed site layout plan shall be submitted to and approved in writing by the Local Planning Authority, in consultation with the County Council's Lead Archaeologist. Subsequently the development shall be carried out in accordance with the approved details.

Part 2 - If there are archaeological areas to be preserved in situ, a management plan will be produced for any archaeological areas to be preserved in situ, setting out the methodology to secure the ongoing protection of these areas both during construction, operation and decommissioning of the solar farm.

- 1.8 Evaluation trenching (Archaeology Warwickshire 2023) was carried out on site in 2022. The trenching involved the excavation of 268 trenches, 20 of which, contained archaeological features.
- 1.9 A probable Iron Age gully associated with a possible roundhouse was uncovered in Trench 219.

Archaeological and Historical Background

- 1.10 The archaeological potential of the site has been evaluated through a Heritage Statement (RPS 2021), an archaeological geophysical survey undertaken in 2021 (Carrozzo and Wilkinson 2021) and a programme of evaluation trenching carried out in 2022 (Archaeology Warwickshire 2023).
- 1.11 The evaluation trenching encountered recorded 27 archaeological features including a cluster of undated features in Trench 113, some of which contained heat affected pebbles potentially representing Prehistoric activity such as a burnt mound,
- 1.12 Archaeological investigation uncovered no evidence for a burnt mound and no archaeological features pre-dating the post-medieval period. A Bronze Age palstave axehead, recovered at the base of a silty humic layer derived from a 'seep' or springline arising at the junction of two

geologies, may have been a deliberate deposition. A bronze bead with gilt inlay recovered from a furrow to the south of the humic layer may have been similar deliberate deposition or could have been a chance loss.

- 1.13 No evidence for a possible metallised surface uncovered in Trench 49 was uncovered during the archaeological excavation in September 2023.
- 1.14 A probable Iron Age gully associated with a possible roundhouse in Trench 219 will be investigated in advance of construction.
- 1.15 Detailed fieldwalking to investigate scatters of late Mesolithic to the early Bronze Age worked flint recovered from the plough soils within two fields at the northern end of the site did not recover convincing evidence for prehistoric settlement.

Scope of Document

- 1.16 Following submission of the evaluation trenching report to the Local Planning Authority, the Senior Planning Archaeologist (Heritage) confirmed the need for further archaeological work (Figure 2), comprising the following:
 - Systematic fieldwalking carried out in 10m transects within two fields at the northern end of the site, and
 - excavation of a 30m x 1.8m trench directly northeast of Trench 49 to confirm the extent of the metallised surface, and
 - the excavation of a 30m x 30m area focused at feature 21902 in Trench 219 and the excavation of a 50m x 50m area focused at Trench 113.
- 1.17 The above works were completed in October 2023; an interim report on the excavations has been prepared by Oxford Archaeology¹.
- 1.18 Access issues precluded safe movement of a mechanical excavator to the 30m x 30m excavation area; excavation area.
- 1.19 The following works will be undertaken following installation of construction access routes in 2024:
 - **the excavation of a 30m x 30m area focused at feature 21902 in Trench 219 (Figure 2).**

Aims and Objectives

- 1.20 A programme of archaeological work is required to define the character and extent of archaeological remains that exist in the area of Trench 219.
- 1.21 The current programme of archaeological work is intended to determine as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains associated with the possible Prehistoric feature in Trench 219.
- 1.22 The archaeological work will also seek to clarify the nature and extent of any existing disturbance and intrusions, assess the artefactual and environmental potential of any archaeological deposits encountered and assess the degree of archaeological survival of any buried remains of archaeological significance.

¹ Oxford Archaeology, 2023, Land Adjacent to Bagworth Road, Newer Nailstone. Nailstone, Hinckley and Bosworth, Leicestershire. Archaeological Excavation Interim Report

- 1.23 The archaeological work will produce a site archive for deposition with an appropriate museum and to provide information for accession to the Leicester and Rutland Historic Environment Record.
- 1.24 The works will help to inform discussions over the extent and scope of any further mitigation works that are appropriate.

Research Framework

- 1.25 The programme of archaeological investigation will be conducted within the general research parameters and objectives defined by the East Midlands Historic Environment Research Framework (available online at: <https://researchframeworks.org/emherf/>).
- 1.26 A project-specific research aim, formulated from the research framework, may be addressed by the excavation:
- Strategic Objective 4C: Characterise the Late Bronze Age and Early Iron Age settlement resource and investigate intra-regional variability.

Standards

- 1.27 This specification conforms to the requirements of the National Planning Policy Framework (MHCLG 2021), and the current Historic England Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (published on 25th March 2015). It has been designed in accordance with the following:
- Management of Archaeological Projects (Historic England 2015b)
 - Code of Conduct, as revised (CIfA 2021)
 - Standard and Guidance for Archaeological Field Evaluations, as revised (CIfA 2020b)

2 METHODOLOGY

General

- 2.1 RPS will inform Leicestershire Senior Planning Archaeologist (Heritage) in advance of the commencement of fieldwork.
- 2.2 The work shall be carried out by appropriately qualified and experienced staff from Oxfordshire Archaeology. Details of staff numbers, their roles and relevant experience will be confirmed with the planning archaeologist once details are known. Staff CVs will be provided on request. Any sub-contracted specialists will be subject to the same provisions.
- 2.3 The Project Manager and any other supervisory staff will ensure that all members of the project team are appropriately informed as to the project's methodologies, planning context, historic environment background and specific objectives. As a minimum all members of the team will have read the brief and this Written Scheme of Investigation.

Open Area Excavation

- 2.4 Stripping of the excavation area will be conducted using a 360-degree machine fitted with a toothless ditching bucket supervised by a suitably qualified and experienced archaeologist. Stripping will be supervised and controlled by the archaeological team to ensure that the archaeological horizon is exposed and is sufficiently clean to identify any archaeological features present.
- 2.5 The spoil generated during the excavation will be removed - by dumper if required - and mounded away from the edges of the stripped area. The archaeological team will ensure that the movement of the dumpers does not impact upon the mitigation areas through rutting.
- 2.6 Mechanical excavation will cease at either undisturbed natural deposits or when archaeological features are identified. The nature of these deposits will be assessed by hand excavation.
- 2.7 Upcast and spoil from mechanical excavation will be scanned by eye and by metal detector to aid the recovery of artefacts.
- 2.8 The excavation area will be cleaned with hand tools (hoe and trowel) as necessary to assist the identification and interpretation of exposed archaeological features and the nature of identified features assessed by excavation.

Feature Class	Proportion to be excavated
Pre-modern linear features not associated with structural remains	10% of fill, to include terminals, intersections, unusual deposits
Pits associated with agricultural & other activities	50% of fill
Layers/ deposits/horizontal stratigraphy relating to domestic/industrial activity [e.g. hearths, floor surfaces, floor make-up deposits...]	100% of deposit
Post-built structures of pre-modern date	100% of each post-hole fill
Domestic ring ditches or roundhouse gullies	50% of fill
Linear features (ditches/gullies...) associated with structural remains	20% of fill, to include terminals, intersections, unusual deposits
Human burials, cremations & other deposits relating to funerary activity	100% of fill/deposit
Prehistoric discrete pits	100% of fill/deposit

Recording

- 2.9 The excavation area will be recorded at a suitable appropriate scale (1:100, 1:50 or 1:20) by digital planning (where resultant plans and illustrations are of a sufficient standard) or measured drawing, and by photography, and will be located to the Ordnance Survey National Grid.
- 2.10 The deposits encountered will be described fully on individual context recording sheets. The sections of excavated archaeological features will also be recorded by measured drawing at an appropriate scale (normally 1:10 or 1:20). Spot heights and those of individual features will be recorded relative to Ordnance Datum, in metres.
- 2.11 A photographic record utilising high resolution digital data capture will be maintained during the course of the fieldwork. Photography will include:
- the site prior to commencement of fieldwork;
 - the site during work, showing specific stages of fieldwork;
 - the layout of archaeological features within each trench;
 - individual features and, where appropriate, their sections;
 - groups of features where their relationship is important;
 - and, where appropriate, rectified digital photography.
- 2.12 All photography will follow the archaeological contractor's guidance which conforms to industry best practice (ADS 2013, HE 2015). Images will be converted to uncompressed baseline v.6 TIFF for archiving.
- 2.13 All images will have accompanying metadata specifying; photo ID, capture device, converting software, colour space, bit depth, resolution, date of capture, photographer, caption, and any alterations made to the image.

Finds

- 2.14 The finds retrieved from the site will be treated in accordance with industry best practice and guidance (Historic England 2005, 2006a and Watkinson and Neal 1998).
- 2.15 All artefacts from excavated contexts will be retained by the archaeological contractor, except for unstratified modern material. Artefacts will be bagged and labelled according to the individual deposit from which they were recovered, ready for later cleaning and analysis.
- 2.16 All finds as a minimum will be cleaned, weighed, counted and identified. Any artefacts requiring immediate stabilisation will be done so in line with First Aid for Finds (Watkinson and Neal 1998). Where warranted, metallic artefacts and residues will be submitted for X-radiography and stabilisation, in accordance with industry best practice (Historic England, 2006b).
- 2.17 For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken. Samples must be processed and sorted, and any artefacts recovered provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists.
- 2.18 Where material suitable for scientific dating is recovered, sufficient dating will be undertaken to meet the aims of the evaluation.
- 2.19 If finds are made that might constitute 'Treasure' under the definition of the Treasure Act (1996), these will if possible be archaeologically excavated and removed to a safe place. Such finds will also be reported immediately to the local Coroner (within 14 days, in accordance with the Act). Should it not be possible to remove the finds that day suitable security will be arranged.

Human Remains

- 2.20 Any human remains encountered will be cleaned with minimal disturbance, recorded and left in situ and only removed if necessary. Any human remains requiring removal will be done so following receipt of a Ministry of Justice licence. Investigation and excavation of human remains will be undertaken by, or under supervision of, suitably experienced specialist staff and in accordance with IFA Guidelines ("Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains" Roberts, C & McKinley, J 1993 – IFA Technical Paper 13; "Guidelines to the standards for recording human remains" ed Brickley, M & McKinley, J 2004 – IFA Paper 7).
- 2.21 Assessment of excavated human remains will be undertaken in line with current Historic England Guidelines ("Human Bones from archaeological sites: Guidelines for the production of assessment documents and analytical reports" Centre for Archaeology Guidelines 2004b). The archaeological contractor will comply with all reasonable requests of interested parties as to the method of removal, re-interment or disposal of the remains or associated items. Every effort will be made, at all times, not to cause offence to any interested parties.
- 2.22 The Client and the Planning Archaeologist will be informed immediately if human remains are discovered.

Environmental Samples

- 2.23 The environmental sampling strategy will include the routine sampling of deposits for the retrieval and assessment of the preservation conditions and potential for analysis of all biological or industrial remains. All environmental work will be undertaken in accordance with Historic England guidelines (Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (Second Edition), Historic England 2011). Sample sizes will normally be 40 litres unless the deposit is smaller in volume. Samples will be directed to a representative range of context type from each phase, and examine:
- Survival of material
 - Key archaeological contexts
 - Potential
- 2.24 A suitable specialist will, if necessary, make a site visit to advise on deposits suitable for environmental sampling and/or geoarchaeological assessment.
- 2.25 Charred plant samples will be wet sieved with flotation using a 0.5mm mesh. All residues will be checked.
- 2.26 Should waterlogged deposits be encountered they will be left in situ until such a time as further mitigation works are required. If this is not possible then further consultation with a suitable specialist will determine methods for recovery.

Other Samples

- 2.27 Samples will be taken for scientific dating (principally radiocarbon dating), where dating by artefacts is insecure and where dating is necessary for development of the subsequent mitigation strategy. Where in situ timbers are found to survive in good condition, samples will be taken for dendrochronological determination following procedures presented in the Historic England (2004a) document 'Dendrochronology: guidelines on producing and interpreting dendrochronological dates'.
- 2.28 Where there is evidence for industrial activity, macroscopic technological residues (or a sample of them) should be collected by hand. Separate samples (c.10ml) should be collected for micro-slugs

(hammer-scale and spherical droplets). Excavation and sampling of such deposits will be in accordance with the Centre for Archaeology Guideline on Archaeometallurgy (Historic England 2001).

3 REPORTING AND ARCHIVING

General

- 3.1 Unless otherwise agreed with the Planning Archaeologist, a report detailing the findings of the archaeological works will be prepared within six weeks of the completion of site works (dependant on receiving specialist reports) and will consist of:
- a title page detailing site address, site code and accession number, NGR, author/originating body, client's name and address
 - a copy of the OASIS form
 - an archive statement giving summary of contents, location, accession number and proposed date for final deposition
 - full contents listing
 - a non-technical summary of the findings of the investigation
 - an introductory statement
 - the aims and purposes of the archaeological work as outlined in this WSI
 - a description of the topography and geology of the area
 - a description of the methodologies used during the investigation
 - an objective summary statement of the findings
 - a site location plan and plans of each of the areas investigated showing the archaeological features exposed (to include AOD levels and to be tied into Ordnance Survey data)
 - all plans will be drawn at appropriate and accurate scales with north arrows and show the location of excavated sections and section drawings
 - sections of the excavated archaeological features (to include AOD levels, cardinal points and be located on the site plans which will be tied into Ordnance Survey data)
 - a phased stratigraphic discussion of the archaeological features
 - an interpretation of the archaeological features exposed and their local and regional context, including a statement of significance
 - specialist reports on the artefactual / ecofactual remains from the site
 - photographs to include general site images (including blank trenches) and key archaeological features, reproduced at reasonable size
 - a full context list [appendix]
 - full quantification of artefacts and ecofacts [appendix]
- 3.2 The report will look to assess the results of the archaeological fieldwork including where necessary the results of any specialist and scientific assessment/analysis and place the results within their local, regional and national context. The report should look to identify any potential research priorities where applicable.
- 3.3 Specialist reports will include recommendations for retention/discard of material.

Dissemination

- 3.4 Copies of the archaeological fieldwork report will be sent to the client for approval, and then the Planning Archaeologist. The digital submission to the Historic Environment Record will include the

full site report (in PDF/A-1a format). Digital photographs will be converted to uncompressed baseline v.6 TIFF for archiving. The OASIS online report form for the fieldwork will be updated and completed. A digital copy of the report will be uploaded to the OASIS site.

- 3.5 A draft copy of the report will be supplied to Planning Archaeologist for comment. Following approval of the draft report, one copy of the approved report will be provided to the LPA; one hardcopy and one digital copy will be supplied to the Leicestershire HER. Copies will also be uploaded as part of the OASIS database record.

Archive

- 3.6 An integrated project archive (including both artefacts/ecofacts and project documentation) will be prepared upon completion of the project. The integrated archive will be deposited with the Leicestershire Museum Service.
- 3.7 The archive of finds and records generated during the project will be kept secure at all stages of the project. All records and materials produced will be archived in accordance with industry best practice (Brown 2011, ClfA 2020c; 2020d, and SMA 1993). Condition and arrangements of the deposition of the archive will be obtained by the archaeological contractor from the Leicestershire Museum Service on the completion of the project.
- 3.8 In the event that artefacts are retrieved from the site, the transfer of the ownership of the finds will be made to the Leicestershire Museum Service, assuming the landowner gives their approval.
- 3.9 An online OASIS form at <http://www.oasis.ac.uk/> will also be completed as part of the project. This will be on the understanding that this information will be made available through the above website, unless otherwise agreed.

4 TIMETABLE, PERSONNEL AND MONITORING

Timetable

- 4.1 Advance notice of the confirmed start date and programme for the archaeological investigation will be provided to the Planning Archaeologist.

Personnel

- 4.2 The archaeological works will be undertaken on behalf of the developer by a professional archaeological team from Oxford Archaeology a Registered Organisations with the Chartered Institute for Archaeologists.
- 4.3 Work on site will be led by a Project Officer / Project Supervisor from Oxford Archaeology, assisted by a team of assistants drawn from their permanent and temporary staff. Actual staff resources will be managed to ensure successful implementation of the programme of works. CVs of key personnel and specialists will be provided to the Planning Archaeologist on request.

Monitoring

- 4.4 The aims of monitoring are to ensure that the archaeological works are undertaken within the limits set by this specification, and to the satisfaction of the Planning Archaeologist.
- 4.5 An appointed consultant will monitor implementation of the programme of works on behalf of the developer.
- 4.6 The Planning Archaeologist will be given sufficient notice of when work is due to commence and will be free to visit the site by prior arrangement with the consultant. The Planning Archaeologist will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken on site against the methodology detailed in this specification.
- 4.7 The Planning Archaeologist will also be responsible for considering any changes to the specification of works; any such alterations will be agreed in writing with the relevant parties prior to commencement of onsite works, or at the earliest available opportunity.

5 INSURANCE AND HEALTH & SAFETY

Insurance

- 5.1 The archaeological contractor will hold Public Liability Insurance to the minimum value of £5m and Professional Indemnity Insurance to the minimum of £5m.

Health & Safety

- 5.2 All works will be in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice and the Construction Design Management Regulations 2007. All archaeological staff will undertake their operations in accordance with safe working practices.
- 5.3 A site-specific risk assessment and safety plan will be prepared before the start of the project and will be updated through the project as required.
- 5.4 A continuous process of dynamic risk assessment will be undertaken and if significant hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
- 5.5 If significant new hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
- 5.6 Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features or remains will be recorded by photography, at a safe distance.

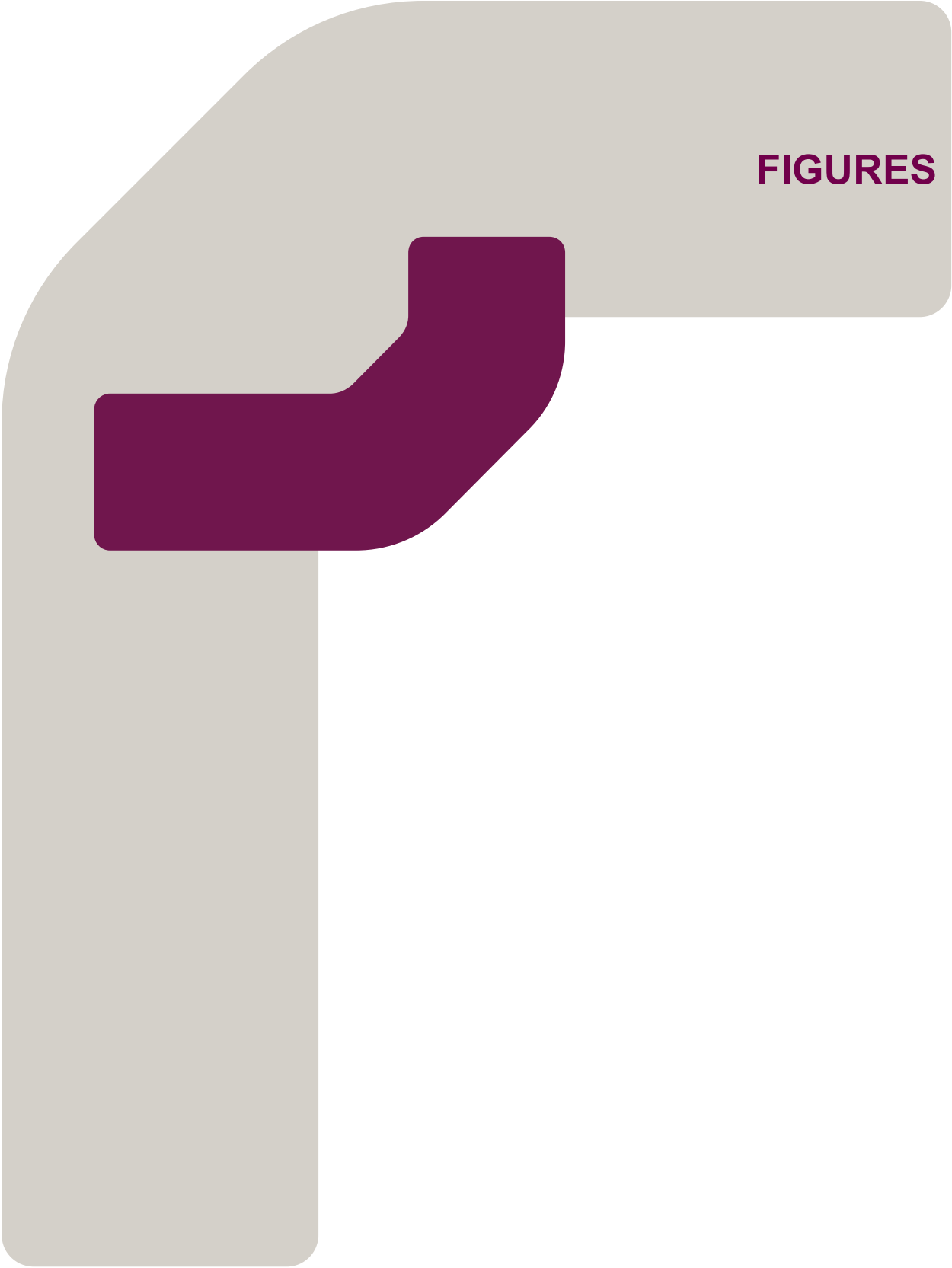
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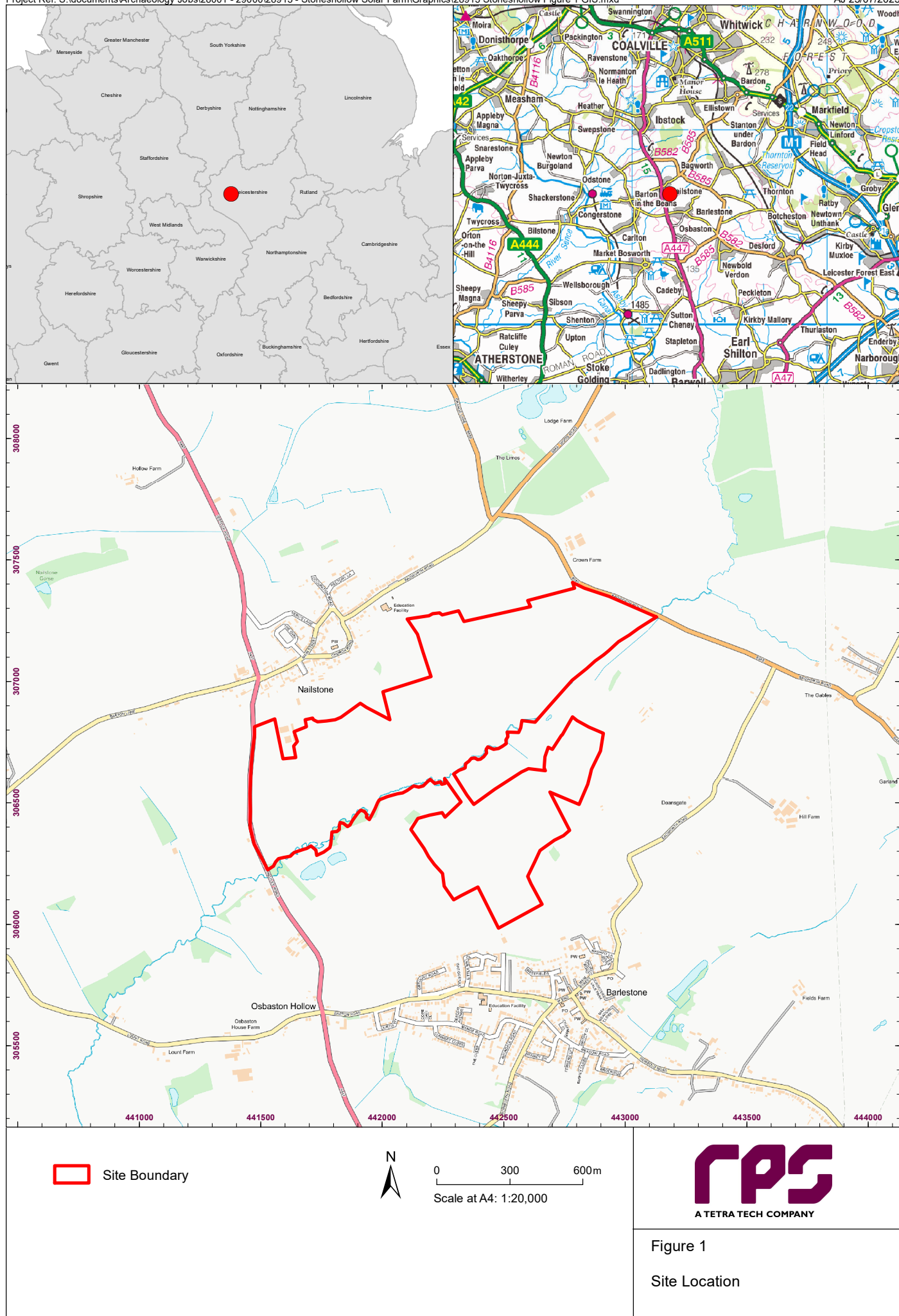
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FIGURES



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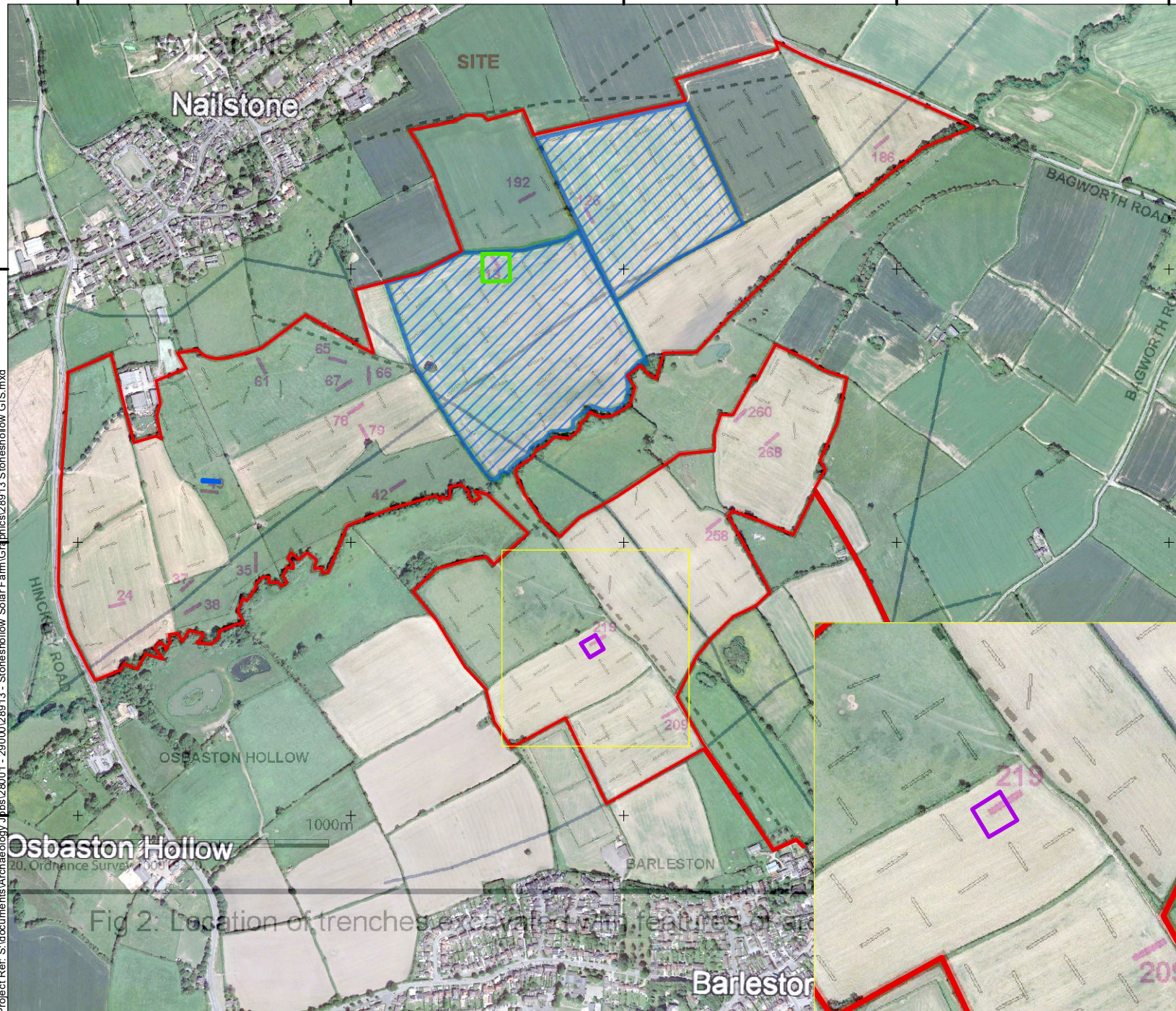
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- Site Boundary
- 30m x 1.8m Trench
- 30m x 30m Strip Area
- 50m x 50m Strip Area
- Fieldwalk Areas

N

0 100 200m

Scale at A4: 1:10,000

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Figure 2

Archaeological Work



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