

Cottam Solar Project

Environmental Statement Appendix 13.2: Archaeological Geophysical Survey Reports (Part 11 of 13)

Prepared by: Lanpro Services
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Issue Sheet

Report Prepared for: Cottam Solar Project Ltd.

Cottam Solar Project Written Scheme of Investigation for Archaeological Geophysical Survey

Cable Routes

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Date: March 2022

Revision 1: addition of archive information and update
to cable route

Introduction

- 1.1 This Written Scheme of Investigation for archaeological geophysical survey (WSI) has been prepared by Lanpro Services Ltd on behalf of Cottam Solar Project Limited ('the Applicant').
- 1.2 The WSI details the overarching methodology for undertaking a programme of archaeological geophysical survey along the proposed cable routes of the proposed Cottam Solar Project ('the Scheme') in support of an application for a Development Consent Order (DCO). As the final cable routes have yet to be determined, it is envisaged that details of the route will be appended to this WSI as they are established, and the final survey areas agreed in advance of survey with the Lincolnshire County Council Historic Environment Team.
- 1.3 The Scheme consists of three electricity generating stations each with a capacity of over 50 megawatts (MW) consisting of ground mounted solar arrays and 'Associated Development'; comprising of energy storage, grid connection infrastructure and other infrastructure integral to the construction, operation and maintenance of the Scheme.
- 1.4 The WSI has been informed by the results of archaeological desk-based assessments produced for the Scheme, supported by a previous gradiometer survey of all of the proposed areas of the solar arrays and substations, with the exception of the cable routes.
- 1.5 The WSI also takes into account the results of consultation undertaken with Historic England and the Lincolnshire County Council Historic Environment Team, and seeks to address any comments provided as part of the consultation process.
- 1.6 The results of the archaeological geophysical survey will inform decisions on the need for further archaeological evaluation and mitigation investigations where these are assessed to be appropriate along the cable route. The scope of any additional archaeological evaluation and mitigations works (e.g. evaluation trenching, geoarchaeological work; archaeological watching briefs) will be detailed in a separate WSI.

Survey Area

- 1.7 The geophysical survey area will follow the cable route.
- 1.8 The geophysical survey area will be centred along the proposed cable route, connecting the Sites that form the Scheme, named Cottam 1, 2 and 3, with the existing Cottam Power Station and include a buffer of up to 50m on either side of the route. This will allow for a survey area that provides suitable coverage to inform the understanding of any potential archaeological anomalies, as well as to allow for potential micro-siting of the route to avoid possible impacts with any archaeological remains.
- 1.9 The cable route traverses 98 areas, totalling c.185ha (Figure 1), and is divided into four sections:
 - Section 1 – areas to west of the proposed Cottam 1 Solar Project site (Appendix 1)
 - Section 2 – areas adjoining land in the proposed Cottam 1 Solar Project site (Appendix 2)
 - Section 3 – areas to the south of the proposed Cottam 2 Solar Project site (Appendix 3)
 - Section 4 – areas to the south of the proposed Cottam 3 Solar Project site (Appendix 4)
- 1.10 The cable route will primarily cross agricultural land, the majority of which is likely to be under arable cultivation.

- 1.11 The recorded bedrock geology in the majority of the proposed route comprises mudstone and limestone of the Scunthorpe Mudstone Formation (BGS 2022). Pockets of Charmouth Mudstone Formation occur in Sections 2, 3 and 4 along water courses and rivers. No superficial deposits are recorded in the east of Section 1. Diamicton Till is present in Sections 2, 3 and 4 and in the west of Section 1. An area of Holme Pierrepont Sand and Gravel Member is located in the west of Section 1. Where Charmouth Mudstone Formation is present, superficial deposits of Alluvium comprising clay, silt, sand and gravel are present (BGS 2022).

Archaeological Background

Introduction

- 1.12 The historical background information provided below is drawn from that produced for the Scoping Report for the Cottam Solar Project sites.
- 1.13 The proposed cable route does not contain any designated heritage assets.

Section 1 – areas to west of the proposed Cottam 1 Solar Project site (Appendix 1)

- 1.14 Various concentrations of Roman settlement and military activity lie adjacent to Stow Park Road and Till Bridge Lane, which follows the line of a Roman road between a river crossing at the River Trent and Ermine Street, the Roman road running to the north of the Roman town at Lincoln '*Lindum Colonia*'. A scheduled Roman fort was recorded from cropmarks visible on aerial photographs taken in 1974 at Marton (NHLE: 1004935; HER: MLI54200). Directly to the north of the fort at Marton is a roadside settlement that lies adjacent to Till Bridge Lane (MLI51369), and the site of a second possible Roman fort at Gate Burton (MLI50544). A Romano-British settlement (MLI84314) was identified during a watching brief on the Blyborough to Cottam gas pipeline to the south of Marton Road. Excavation in 1997 revealed two phases of a farmstead dating from c.AD 50 to at least AD 200. Geophysical survey in the Cottam 1 site, has identified several concentrations of anomalies that could represent settlements and enclosures of a late prehistoric or Roman period date based on their morphology. Romano British pottery has also been identified during fieldwalking in the 1960s in Torksey (MLI53798).
- 1.15 Between the winters of 872 and 873 the great Viking Army encamped on land to the north of Torksey (MLI125067). The camp was located on an easily defensible prominent buff with the River Trent to the west. Between 2011 and 2015 The Universities of Sheffield and Nottingham undertook a research programme that identified the scale of the camp, along with the likely activities that occurred during the camp's lifespan, including expensive scatter of metal works (MLI25072, MLI125073 and MLI118779). Anglo-Saxon material has also been identified in the vicinity of the Viking Camp (MLI54282).
- 1.16 Torksey was a focus of early medieval settlement (MLI52545). Numerous kilns and vast quantities of pottery relating to the Torksey pottery industry, dated between the 9th and 12th centuries, were unearthed by excavations in 1965, 1967 and 1997 (MLI52561). Geophysical survey undertaken in 1989 followed by excavation in 1990 identified large amounts of early medieval pottery along with a kiln and four burials that were considered to belong to an early-medieval cemetery (MLI52545). Subsequent excavation on the same site in 1994 revealed a further six burials of late 10th to early 11th century date. An evaluation undertaken in 1996 identified bone, one fragment of early Saxon pottery, and 10th to 11th century pottery (MLI53578). A second early medieval cemetery comprising seven burials was identified through trial excavation to the east of Main Street in 2002 (MLI54158). By the medieval period

Torksey formed a significant settlement, and evidence of medieval settlement survives in fields located between the modern village of Torksy and the Foss Dyke (MLI54207). Torksey is located on a vantage point between the River Trent and the Foss dyke and so was likely to have flourished during the medieval period as evidence by the presence of the ruins of an Elizabethan mansion are located in the centre of Torksey (MLI54206).

- 1.17 There may be some limited potential for the survival of previously unrecorded remains relating to Early Anglo-Saxon period in the direct hinterland of medieval villages that are suggested to have early medieval origin. The shrunken medieval village of Normanby-by-Stow (MLI52445) is located directly to the east of the proposed cable route in Section 1. Geophysical survey directly to the east of Normanby-by-Stow in the Cottam 1 site has identified a series of anomalies that are likely to relate to the medieval village. Willingham (MLI54013), to the north of the north of the proposed cable route corridor, appears to have had a relatively small population in the late 11th and 12th centuries, that rose into the 14th century. It seems to have been relatively unaffected by population decline in the 14th and 15th century, but appears to have declined in the post-medieval period. Remains of medieval plots have been recorded to the north and east of the village.
- 1.18 Land within Section 1 of the proposed cable route corridor has primarily remained in agricultural use throughout the medieval and post-medieval period as demonstrated by cropmarks of ridge and furrow that are recorded within the HER (MLI52493, MLI54012, MLI54020) and through the results of the geophysical surveys of adjacent proposed solar panel sites. Any potential buried archaeological features dating to the post-medieval period would likely relate to agricultural activity, such as ploughing, field boundaries and drainage.
- 1.19 The HER records numerous post-medieval farmsteads within the hinterland of the scheme. Parkland associated with Gate Burton Hall (MLI98360) and a post-medieval deerpark and gardens (MLI50409) are both located to the south of Knaith in the west of Section 1 of the cable route corridor.

Section 2 – areas adjoining land in the proposed Cottam 1 Solar Project site (Appendix 2)

- 1.20 Despite the lack or limited nature of previously recorded evidence for prehistoric and Roman period activity within the Cottam 1 Site, the results of the geophysical survey within the proposed solar panel site has identified concentrations of anomalies that could represent settlements and enclosures of a late prehistoric or Roman period date based on their morphology. Several anomalies correspond with an area in which Roman period pottery and possible building stone were recovered in the 1930s (MLI51104). In the hinterland of the scheme cropmarks of a prehistoric ring ditch enclosure (MLI54007) and boundary (MLI54008) are recorded to the north of Fillingham. Roman pottery was found in the direct hinterland of the Cottam Site at Cammeringham (MLI52426), and to the north of Fillingham (MLI51092).
- 1.21 There may be some limited potential for the survival of previously unrecorded remains relating to Early Anglo-Saxon period in the vicinity of the known area of former medieval villages. Normanby-by-Stow (MLI52445) is located to the west of the Cottam 1 site, and geophysical survey has identified a series of anomalies that are likely to relate to the shrunken medieval village. Coates (MLI50538), which is located in the centre of the Cottam 1 site, had a relatively small population at the time of the Domesday Book, which grew during the 13th and 14th centuries but was depleted by the Black Death and eventually abandoned by the late 14th or early 15th century. Analysis of earthworks suggests a manorial complex (MLI50313) was located at the west end of the village. The village of Fillingham (MLI51121) appears to have had a large population by the end of the 11th century. Ploughed earthworks have been

recorded at the east end of the village and an extensive area of medieval features, containing 12th-century pottery, were revealed during archaeological evaluation works at Church Farm. Closer to the scheme, is the site of a possible medieval grange at Fillingham Grange farm (MLI51120), which is suggested to have been associated with Ravesby Abbey. Thorpe (MLI50540) is documented in the Domesday Book as being a relatively small settlement at the end of the 11th century. Although the village grew during the later medieval period, medieval village plots were replaced by post-medieval farmsteads and now survive as earthworks to the north and south of Thorpe Lane.

- 1.22 It is considered that the majority of the Section 2 survey area has remained in primarily agricultural use throughout the medieval and post-medieval periods. This is supported by the vast number of HER records relating to ridge and furrow cropmarks (MLI50925, MLI52107, MLI52108, MLI52520, MLI52526, MLI52527, MLI52430), and the results of the geophysical survey. Therefore, it is considered likely that the majority of any potential buried archaeological features dating to the medieval and post-medieval periods are likely to relate to agricultural activity, such as ploughing, field boundaries and drainage.

Section 3 – areas to the south of the proposed Cottam 2 Solar Project site (Appendix 3)

- 1.23 The HER records several finds of a prehistoric and Roman date in the northern part of Section 3. These include a stone axehead (MLI51358) and stone axe and flint scrapper (MLI51349) found near Springthorpe; Mesolithic flints near School Lane (MLI51357); part of a polished stone axe fragment found to the south-west of Magin Moor Cottage (MLI51291); Roman pottery and part of a quern found to the north-west of Magin Moor Cottages (MLI51340); and Roman British pottery and stone found to the north of School Lane (MLI51356). Several concentrations of anomalies have also been identified through geophysical survey in the Cottam 1 and 2 solar panel sites that could be indicative of settlements and enclosures of a late prehistoric or Roman date.
- 1.24 Several villages adjacent to the proposed cable route in Section 3 are recorded in the Domesday Book of 1086. The settlement at Yawthorpe (MLI51344) had a chapel by 1277, and the earthwork remains surrounding the present settlement attest to its larger size during the medieval period. Corringham (MLI51346) and Springthorpe (MLI51360) are recorded as having a sizeable population at the time of the Domesday survey; vestiges of their medieval layout are retained in the plan of the modern village. A shrunken medieval village is located at Heapham (MLI50515), and earthworks of a moated site are located to the north of the modern village.
- 1.25 The majority of Section 3 of the proposed cable route corridor is likely to have retained a rural character since at least the early medieval period. The documentary and archaeological evidence for the area around the proposed cable route suggests that the present pattern of villages, hamlets and post-medieval farmsteads broadly represents the pattern of Late Anglo-Saxon, medieval and post-medieval settlement. An abundance of ridge and furrow is recorded on the HER (records MLI5091, MLI50925, MLI54142, MLI54253, MLI54272 and MLI98190 relating to recorded ridge and furrow are located within or next to Section 3 of the proposed cable route corridor) and the results of the geophysical survey in the solar panel sites at Cottam 1 and 2. Any potential buried archaeological features dating to the medieval and post-medieval period that may be present within the proposed cable route area are likely to primarily relate to agricultural activity, such as ridge and furrow, field boundaries and drainage.
- 1.26 A section of the former Second World War Sturgate Airfield extends into the Section 3 cable route corridor near Heapham. Sturgate Airfield was opened in 1944 and closed in 1946. It was

later used by the US Air Force between 1952 and 1964 and survives in the modern landscape as cropmarks and remains of stonework. The portion of the airbase that lies within the scheme's corridor is currently used as a depot and so unlikely to be accessible for survey works.

Section 4 – areas to the south of the proposed Cottam 3 Solar Project site (Appendix 4)

- 1.27 The HER records limited evidence of prehistoric and Roman activity within the direct vicinity of Section 4 of the proposed cable route. A stone axe fragment was found in Northorpe Beck (MLI51291) and a fragment of Roman pottery was found to the south of Hall Farm (MLI51312). Geophysical survey in the Cottam 3 site has also identified several concentrations of anomalies that could be indicative of settlements and enclosures of a late prehistoric or Roman date.
- 1.28 Evidence of early medieval activity comprises a single find of a sherd of Anglo-Saxon pottery at the White Hart, in Blyton (MLI87837).
- 1.29 Several villages adjacent to the proposed cable route in Section 4 are recorded in the Domesday Book of 1086. The village of Blyton (MLI51317) appears to have been an average sized settlement in the early 14th century, that expanded following recovering from the black death in the 14th century. Pilham (MLI51332) may always have been a relatively small settlement, and there is no earthwork or cartographic evidence to suggest that it has shrunken extensively since the medieval period. To the south of Pilham, the deserted medieval village of Gilby (MLI50534) is first documented in the early 12th century, and is recorded together with Pilham in the Lay Subsidies of the early 14th century. The village of Aisby (MLI51345) may never have been particularly large, and no earthwork remains have been recorded that could suggest a shrunken settlement, although the remains of a number of ponds, ditches and post holes, together with a find of a silver brooch, have been recorded in the vicinity. Similarly, there appears to be little evidence of settlement shrinkage at Corringham during the later medieval period. Earthwork remains of sunken road, crofts and surrounding ridge and furrow belonging to the former medieval village of Dunstall (MLI54223), which is located to the east of Section 4 of the proposed cable route.
- 1.30 Section 4 of the proposed cable route corridor are likely to have retained a primarily rural character since at least the early medieval period. The documentary and archaeological evidence for the area around the proposed cable route suggests that the present pattern of villages, hamlets and post-medieval farmsteads broadly represents the pattern of Late Anglo-Saxon, medieval and post-medieval settlement. An abundance of ridge and furrow has been recorded in the HER (MLI125520, MLI125593, MLI54076, MLI54077, MLI98184 relating to ridge and furrow are located immediately adjacent to Section 4 of the proposed cable route corridor) and in the results of the geophysical survey in the solar project sites at Cottam 2 and 3. Any potential buried archaeological features dating to the medieval and post-medieval period that may be present within the proposed cable route area are likely to primarily relate to agricultural activity, such as ridge and furrow, field boundaries and drainage.
- 1.31 The area surrounding the scheme was subjected to post-medieval mineral extraction; three gravel pits are recorded to the north-west of the scheme near Blyton (MLI52806 - MLI52808).
- 1.32 In early 1941, part of the area covered by the proposed Cottam 3 solar panel site was chosen for the site of RAF Blyton and the base was opened in November 1942 (MLI54074). The former field pattern within the centre of the Cottam 3 study site was cleared, and the Blyton Field farmstead demolished, to make way for a standard 'Class A' runway pattern, consisting of three hardened runways and a concrete perimeter track linking 36 hard-standings. Following the war, the base was used for storage until 1947, and was used as a relief landing field in the

1950s, but finally closed in May 1954, and the area of the airfield within the study site reverted back to agricultural use.

Aims and Objectives

1.33 The overall aim of the archaeological geophysical survey will be to obtain sufficient information to establish the presence/absence, and where possible, character of any archaeological remains within the proposed development site. This will allow reasoned and informed recommendations to be made on the application for development of the site, and any requirements for further archaeological evaluation and mitigation, the scope of which would be detailed in a subsequent WSI in agreement with the Lincolnshire Council Historic Environment Advisor. This will be achieved through the following objectives:

- To survey a 100% sample of all accessible areas within the scheme.
- To determine the location, extent, and where possible, character of any magnetic anomalies identified within surveyed areas.
- To assess the archaeological potential of magnetic anomalies using available supporting evidence.
- To identify concentrations of archaeological deposits to inform the scheme design and requirement for further archaeological investigation.
- To create a detailed report with illustrations and compile an appropriately packaged digital archive to ensure the long-term survival of the collected data.

1.34 The programme of archaeological geophysical survey will be carried out with the aim of addressing the general research parameters and objectives defined in the regional archaeological research framework, *Research and Archaeology Revisited: a revised framework for the East of England* (Medlycott 2011) and the *East of England Regional Research Framework* (2021).

1.35 The evaluation will also take account of the national research programmes outlined in English Heritage's Strategic Framework for historic Environment Activities and Programmes in English Heritage (SHAPE) first published in 2008.

Standards and Guidance

1.36 All work will be undertaken to fully meet the requirements of all nationally recognised guidance for such work, including standards laid down by the International Society of Archaeological Prospection, the European Archaeological Council (EAC), Lincolnshire Council Historic Environment Advisor, Historic England and the Chartered Institute for Archaeologists (CIfA).

1.37 The programme of geophysical survey will be managed in line with the standards laid down in the Historic England guideline publication *Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide* (2015a), as well as to meet the requirements of the National Planning Policy Framework (NPPF; Chapter 16: 'Conserving and enhancing the historic environment'; revised 2021).

1.38 Guidance of particular relevance to the programme of works are:

- *Code of Conduct* (CIfA 2019)

- *EAC Guidelines for the Use of Geophysics in Archaeology* (Schmidt et al 2015)
- *Archaeology Handbook* (Lincolnshire County Council 2019)
- *Standards and guidance on archaeological geophysical survey* (CIfA 2020a)
- *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2020b)
- *Management of Research Projects in the Historic Environment: PPN3: Archaeological Excavation* (English Heritage 2008)

Methodology

Data Collection

- 1.39 The geophysical survey will comprise a magnetic survey technique. Magnetic surveys are generally considered to be the most cost-effective and successful technique for identifying a wide range of different archaeological features. Recent geophysical surveys undertaken for the Cottam Solar Project sites have successfully detected potential human activity which appears to date from a range of different time periods. It can therefore be inferred that there is a high potential that the soils and type of archaeological features within the proposed cable route are conducive to a magnetic survey technique. Any adaptations to the methodology will be agreed with the developer, consultant and Lincolnshire Council Historic Environment Advisor.
- 1.40 All survey work will be completed to appropriate standards, as outlined by professional guidelines (CIfA 2020a; Schmidt et al. 2015). All survey works will be completed by appropriately experienced operators working in line with the CIfA Code of Conduct
- 1.41 The magnetometer survey will be undertaken using an appropriate magnetometer system (either cart-based or handheld) with a resolution no coarser than 1m by 0.25m. All data should be located using Real Time Kinematic (RTK) differential GPS equipment with a positional accuracy of $\pm 0.1\text{m}$.
- 1.42 If required, the contractor(s) will provide a method statement that details the methodology of data collection and the instrumentation and software they will use to collect and process data.
- 1.43 The geophysical survey should cover all accessible land within the proposed cable route; where areas are not considered suitable for survey this should be justified in the final report.
- 1.44 Data will be regularly downloaded and transferred to a desk-top computer for processing, visualisation, interpretation and archiving. Data plots should be made available to Lanpro on a weekly basis, or as areas are completed.
- 1.45 Before and after photos will be taken of each area surveyed. The contractor will ensure that all materials brought onto the site are removed at the end of survey, and that no damage has been caused to the site.

Data Processing and Interpretation

- 1.46 Data processing and interpretation will be undertaken by a competent geophysicist who is well versed in the characterisation of magnetic anomalies.
- 1.47 Instruments will be correctly set up prior to data collection to minimise the level of post survey processing. In particular, instruments will be correctly calibrated for the duration of the survey to ensure minimal destripping or zero-mean traverse is required.

1.48 Data will be minimally processed using appropriate software; where processes are applied to collected data, this will not negatively impact the data. All processes will be detailed in the accompanying report along with a full justification statement.

1.49 Interpretation will be undertaken with consideration to available supporting evidence, including, but not limited to, geological, documentary, cartographic, LiDAR and aerial sources. Consideration should also be given to site/ground conditions, topography and features present in the landscape at the time of survey.

Geophysical Survey Report

1.50 The results of the geophysical survey will be presented in a fully illustrated report, containing at a minimum the following elements:

- Title Page
- Contents Page
- Non-technical summary of results
- Introduction
- Site location, Geology, Topography and Land Use
- Archaeological Background
- Aims and Objectives
- Methodology
- Results
- Conclusion
- Appendices

1.51 Illustrations for the final report will include greyscale plots of raw (unclipped) data, processed data and XY trace plots shown at an appropriate palette range. Figures will include a general overview of all data collected for the scheme, as well as individual illustrations of each area at an appropriate scale.

1.52 The final report should detail ground conditions at the time of survey and include justification statements for any adjustments to the data collection methodology, such as changes to instrument settings.

1.53 A draft report should be submitted to Lanpro for review prior to the finalisation of the report.

1.54 Where multiple contractors are used each contractor will undertake processing, interpretation and reporting independently for the area(s) that they surveyed. An overarching summary report will be created by Lanpro that draws together the data reported on by each contractor. Reports produced by the contractors will be appended to the summary report.

Repeatability

1.55 Data will be checked on site daily to identify any issues. Where issues are identified, the data will be recollected.

1.56 A daily control grid of 30x30m (handheld collection) or block of traverses of an area no less than 900m² (cart-based survey) will be repeated over the same area at the start and end of

each day to demonstrate the consistency and reliability of the geophysical survey data. The same processes, if required, will be applied to the repeat data. Plots of the data will be presented in an appendix of the final report.

- 1.57 If multiple contractors are used, a control area will be established that all contractors survey to demonstrate data integrity between different operators.
- 1.58 Attention will be made to data presentation and the interpretation of data sets, to minimise inconsistencies between reports produced by different contractors.

Archiving and data management

- 1.59 The Collection Accession Number is: LCNCC : 2022.68.
- 1.60 The appointed archaeological contractor will contact The Collection in advance of commencing any fieldwork to determine the preparation, and deposition of the archive and finds, and agree any additional accession numbers (i.e. site codes) for all archaeological works.
- 1.61 As required, a separate site code will be attained for each contractor used.
- 1.62 Digital records of the geophysical survey will be appropriately packaged for long-term storage in accordance with national guidelines (ClfA 2020a; Schmidt et al. 2015). The digital archive will be produced using industry standard file formats, with a clear file structure that allows these to be easily shared with all stakeholders.
- 1.63 Georeferenced greyscale plots of the data and interpretation layers will be made available as either shapefiles or in dwg format.
- 1.64 Digital copies of reports will be deposited on OASIS and submitted to the Lincolnshire Historic Environment Officer within three months of the completion of the project.
- 1.65 If requested, the archive will be deposited online with the Archaeology Data Service (ADS).

Timetable and Site Access

- 1.66 The timetable for the fieldwork will be determined upon appointment of the archaeological contractor and in line with the applicant's programme of works. It is anticipated that fieldwork will be undertaken from April 2022 and will be completed within eight weeks.
- 1.67 The applicant and their land agent will be responsible for agreeing access for all areas requiring survey, including identifying potential constraints that could impact on the progress of fieldwork. Lanpro will be responsible for communicating any agreed timetable and access requirements to the archaeological contractor.
- 1.68 The contractor will undertake the works in line with the approved programme and will provide early warnings of any potential foreseen delays. The contractor will immediately communicate any access issues identified with Lanpro, who will, as required, relay these to the client.
- 1.69 Any changes to the programme will be agreed with the Lanpro, the applicant, and the archaeological contractor.
- 1.70 Interim plots of the results and interpretation will be provided to Lanpro within two weeks of the completion of fieldwork. The final report will be provided within four weeks of the completion of fieldwork.

Staffing

- 1.71 Alice James (Associate Archaeologist, Lanpro) will oversee management of the project and will monitor the work on behalf of the client. Alice has over ten years' experience working as an archaeological geophysicist. Alice graduated from the University of Reading in 2009 with a BA (hons) in Archaeology and History, During her studies Alice was involved in a range of archaeological projects, including excavation and survey in Britain and abroad. Alice was awarded an Undergraduate Research Opportunity Programme (UROP) placement in her second year of studies focused on a large-scale geophysical survey of the hinterland of Silchester Roman Town. This led to Alice completing a Masters in Archaeological Prospection at the University Bradford in 2011. During her masters, she expanded her knowledge of the theoretical applications of near-surface geophysics and became proficient in the various survey methodologies, as well as developing skills using a range of software packages used to process and visualised geophysical survey results. Her professional career began in Italy, where she worked at the British School at Rome on a several significant archaeological research projects. Since 2014, Alice has been employed in senior roles for UK-based commercial archaeological companies. Alice has vast experience of completing geophysical survey projects of varying scale and complexity, using a range of techniques.
- 1.72 The geophysical survey will be undertaken by a suitably qualified and experienced professional archaeological contractor(s), that will adhere to the ClfA Code of Conduct and all appropriate standards and guidance. Details of the contractors—including CVs of key personnel and specialists—will be provided to the Lincolnshire Council Historic Environment Advisor in advance of the commencement of fieldwork, following appointment of the archaeological contractor. The appointed archaeological contractor's Project Manager for the project will be able to demonstrate competence and experience of managing archaeological geophysical survey projects of a similar size, nature and complexity. All staff will be fully briefed on the contents of this WSI.
- 1.73 The archaeological survey contractor will be responsible for the organisation and management of any equipment, welfare and health and safety required on site in line with national professional guidance.

Monitoring

- 1.74 The Lincolnshire Historic Environment Advisor will be notified prior to the commencement of the archaeological geophysical survey and will be free to visit the survey areas at any time, following agreement with Lanpro. The Lincolnshire Council Historic Environment Advisor will monitor implementation of the archaeological geophysical survey and evaluate the work undertaken on site against the methodology detailed in this WSI.
- 1.75 The Lincolnshire Council Historic Environment Advisor will be responsible for considering any changes to the agreed scope of works. Any such changes will be agreed in writing with relevant stakeholders prior to commencement of on-site works, or at the earliest opportunity. The Lincolnshire Council Historic Environment Advisor will be afforded the opportunity to inspect the survey areas and all records of the appointed archaeological survey contractor at any stage of the work.

Communication

- 1.76 The appointed archaeological survey contractor will provide regular (daily or weekly) updates to Lanpro via email and telephone. Any issues that arise on site or during the post-excavation stages should first be addressed by the archaeological survey contractor directly to Lanpro,

who will then liaise with the client, the Lincolnshire Council Historic Environment Advisor and any other stakeholders in order to resolve the matter.

- 1.77 In the event of issues arising regarding the implementation of this WSI, or the scope or methodology of the proposed works, these will be resolved in the first instance by contacting Lanpro who will liaise with the client and the Lincolnshire Council Historic Environment Advisor to determine a solution. Should the issue not be resolved remotely a meeting will be held between key stakeholders to facilitate discussion of the issues and identification of a suitable strategy for progress to be agreed by all parties.

Copyright and publicity

- 1.78 Copyright of the documentation prepared by the archaeological contractor and specialist sub-contractors should be the subject of additional licences in favour of the client, Lanpro, and the Lincolnshire HER to use such documentation for their commercial, statutory or educational functions, and to provide copies to third parties as required, in perpetuity.
- 1.79 Under the Environmental Information Regulations (EIR 2005), information submitted to the HER becomes publicly accessible, except where disclosure might lead to environmental damage, and reports cannot be embargoed as 'confidential' or 'commercially sensitive'.
- 1.80 It is recognised that the project may identify remains which are of interest to the public and these may be publicised through appropriate media. Any publicity for the project proposed by the archaeological contractor should be approved by Lanpro and the client.
- 1.81 The appointed contractor will not issue any information on the work through media, internet or social media without prior agreement with Lanpro and the client.
- 1.82 Care will be taken to ensure that any publicity does not compromise the security of archaeological remains that may have been identified or recovered. Any approaches by the press to the archaeological contractor should be referred to Lanpro in the first instance.

Insurance

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

Health and safety

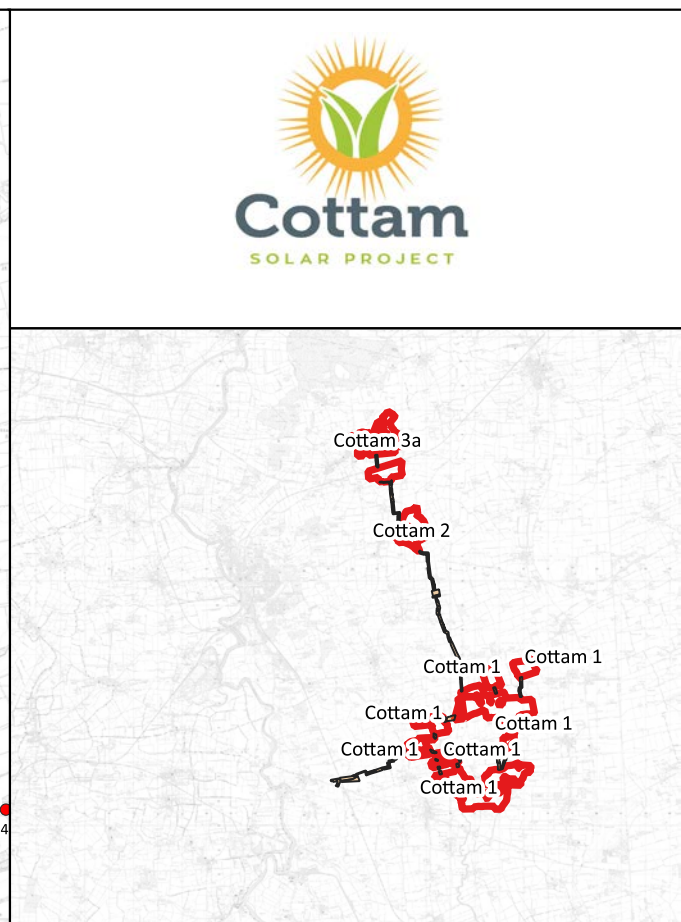
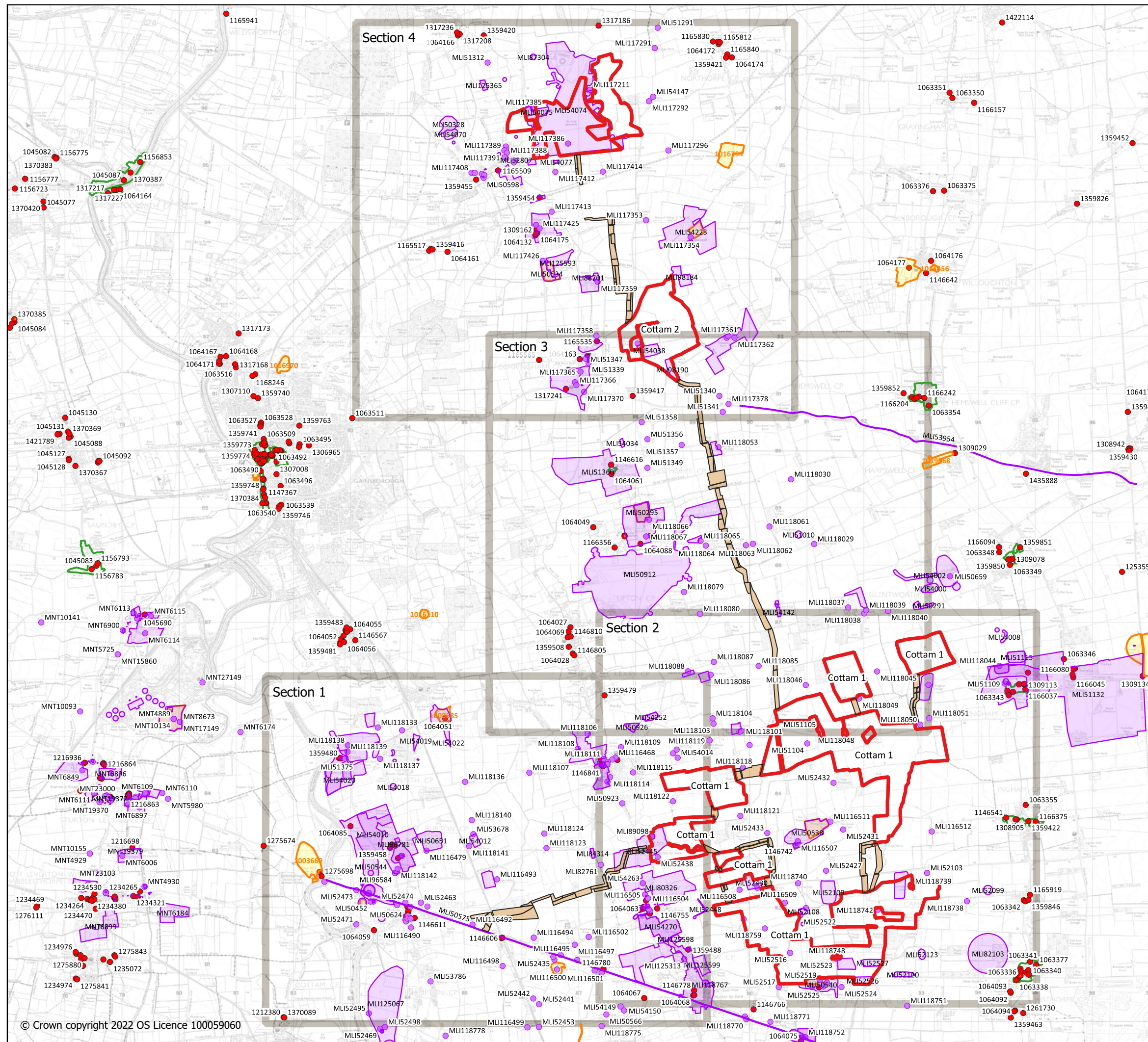
- 1.84 All works will be undertaken in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice, and the Construction Design Management Regulations 2015, and a site-specific risk assessment will be undertaken prior to the commencement of work.
- 1.85 All staff will undertake their operations in accordance with safe working practices and will be CSCS certified as required. At least one First Aider will be present on site at all times.
- 1.86 A site-specific risk assessment and method statement (RAMS) will be produced by the appointed archaeological survey contractor, prior to the commencement of work on site, which will be subject to regular review.
- 1.87 All work will be undertaken in-line with the government's and the CifA guidance for health and safety on construction sites during the Covid-19 outbreak (CifA 2021). Documented procedures for safe working will be supplied by the appointed archaeological fieldwork contractor, in addition to the usual site-specific RAMS.








- 1.88 Regular audits of health and safety practices will be carried out during the course of the fieldwork. Toolbox talks on health and safety issues will be conducted at minimum weekly intervals and/or after changes in working practices or identification of new threats/risks. The risk assessment will be reviewed and updated as necessary. Control measures will be implemented as required in response to specific hazards.
- 1.89 Suitable Personal Protective Equipment (PPE) will be provided by the archaeological contractor, including hi-visibility coats/vests, safety boots and gloves, face masks and hand sanitiser, as well as safety glasses if required.
- 1.90 The appointed contractor will provide suitable welfare facilities for all site staff, in line with government Covid-19 guidance.
- 1.91 Sub-Contractors health and safety performance will be kept under review and action taken if necessary.

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Figures



-  Geophysical Survey Areas
-  Proposed Solar Site
-  Scheduled Monuments
-  Listed Buildings
-  HER 'Monuments' Polygon
-  HER 'Monuments' Polyline
-  HER 'Monuments' Point

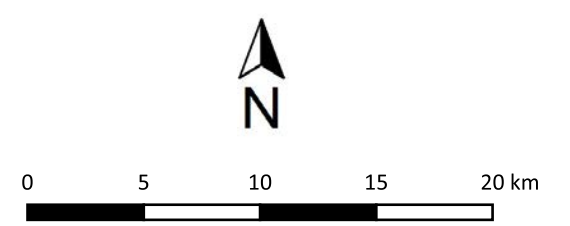
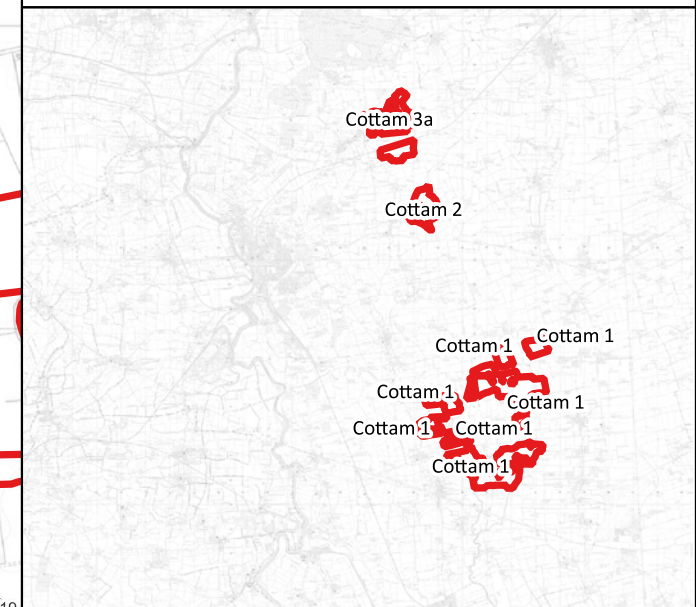
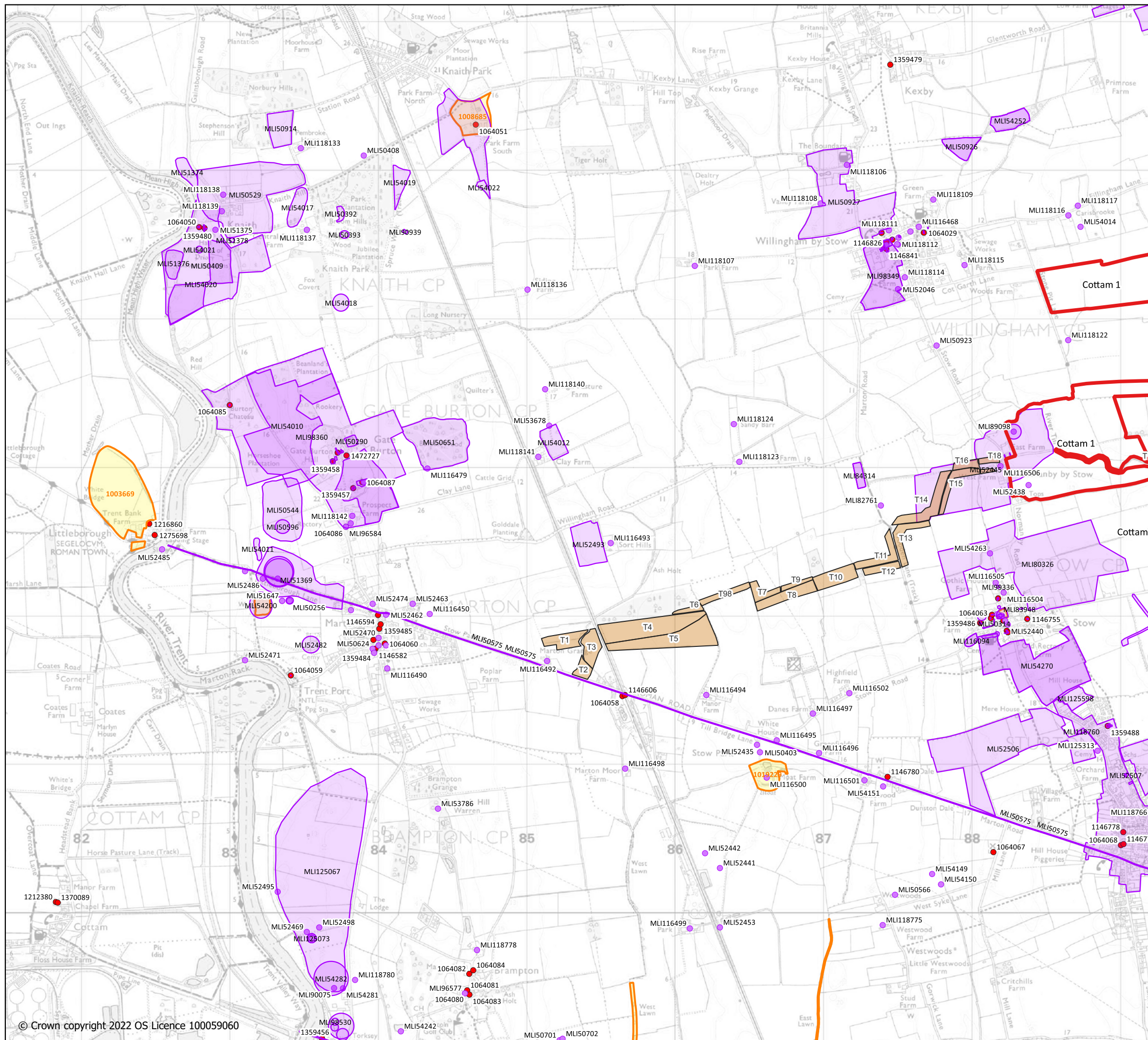









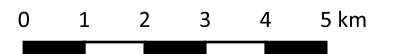
Figure 1: Cable route corridor option area with the location of NHLE and HER

Appendix 1

Section 1 – Areas to west of the proposed Cottam 1 Solar Project site



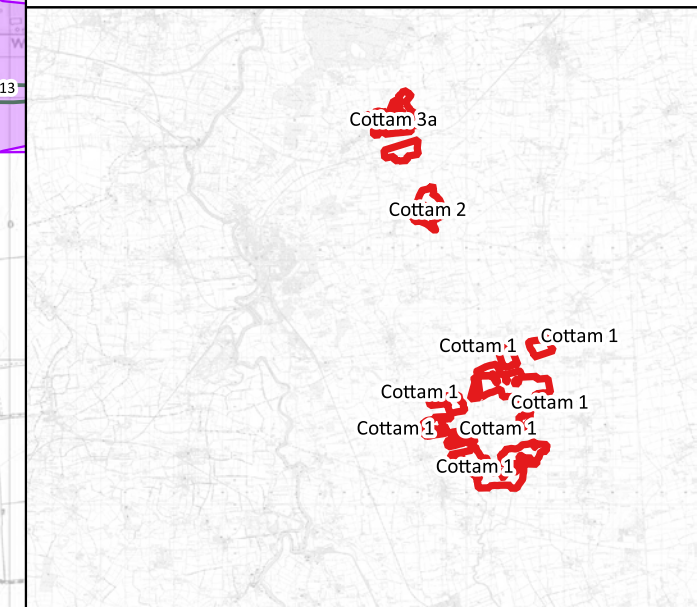
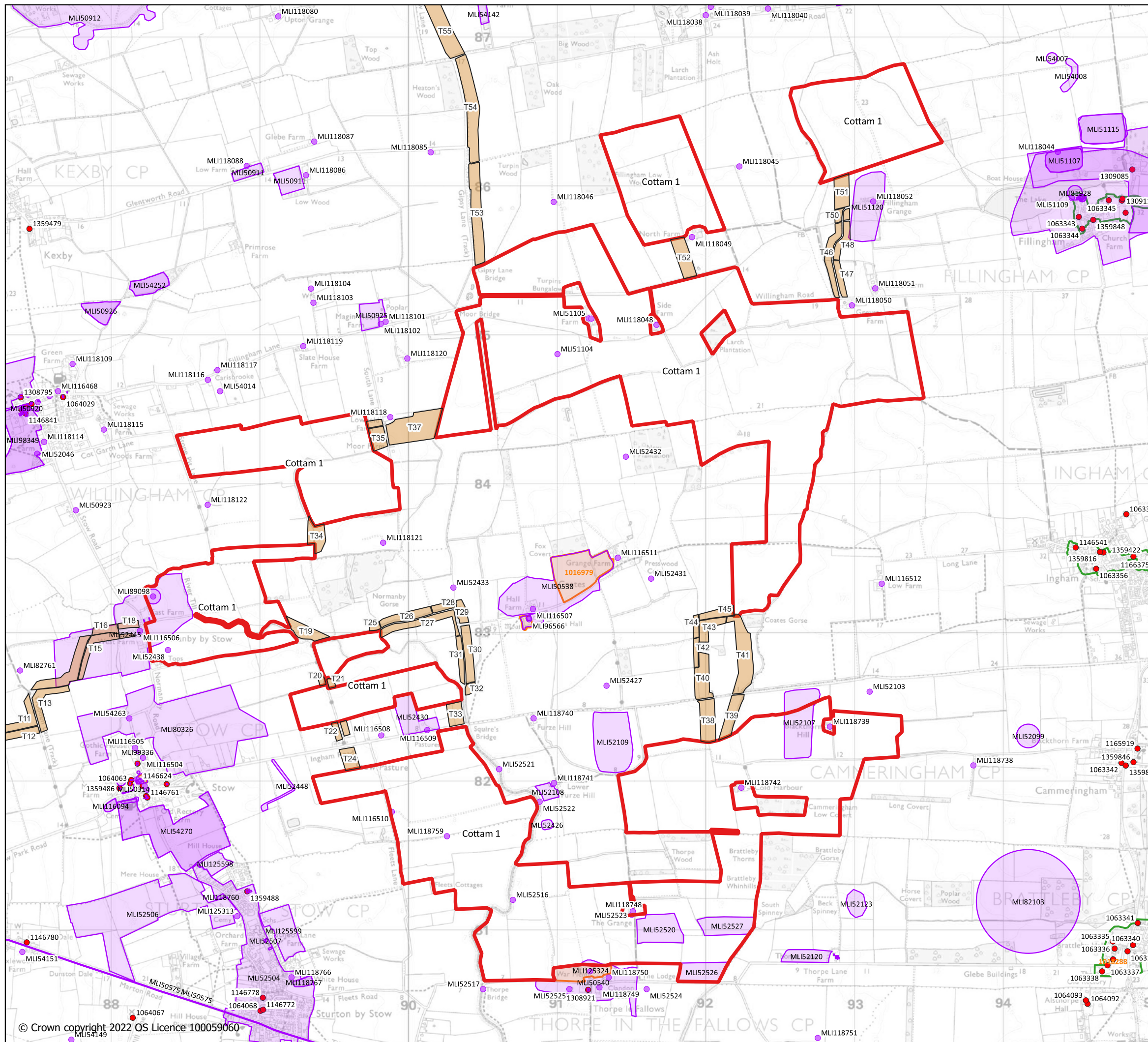
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Section 1: proposed cable route to the west of the proposed Cottam 1 Solar Project with the location of NHLE and HER monuments

Appendix 2

Section 2 – Areas adjoining land in the proposed Cottam 1 Solar Project site



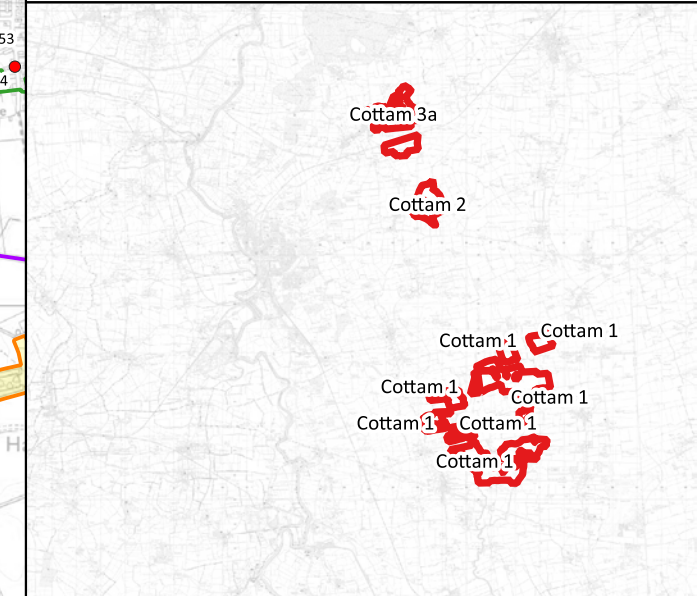
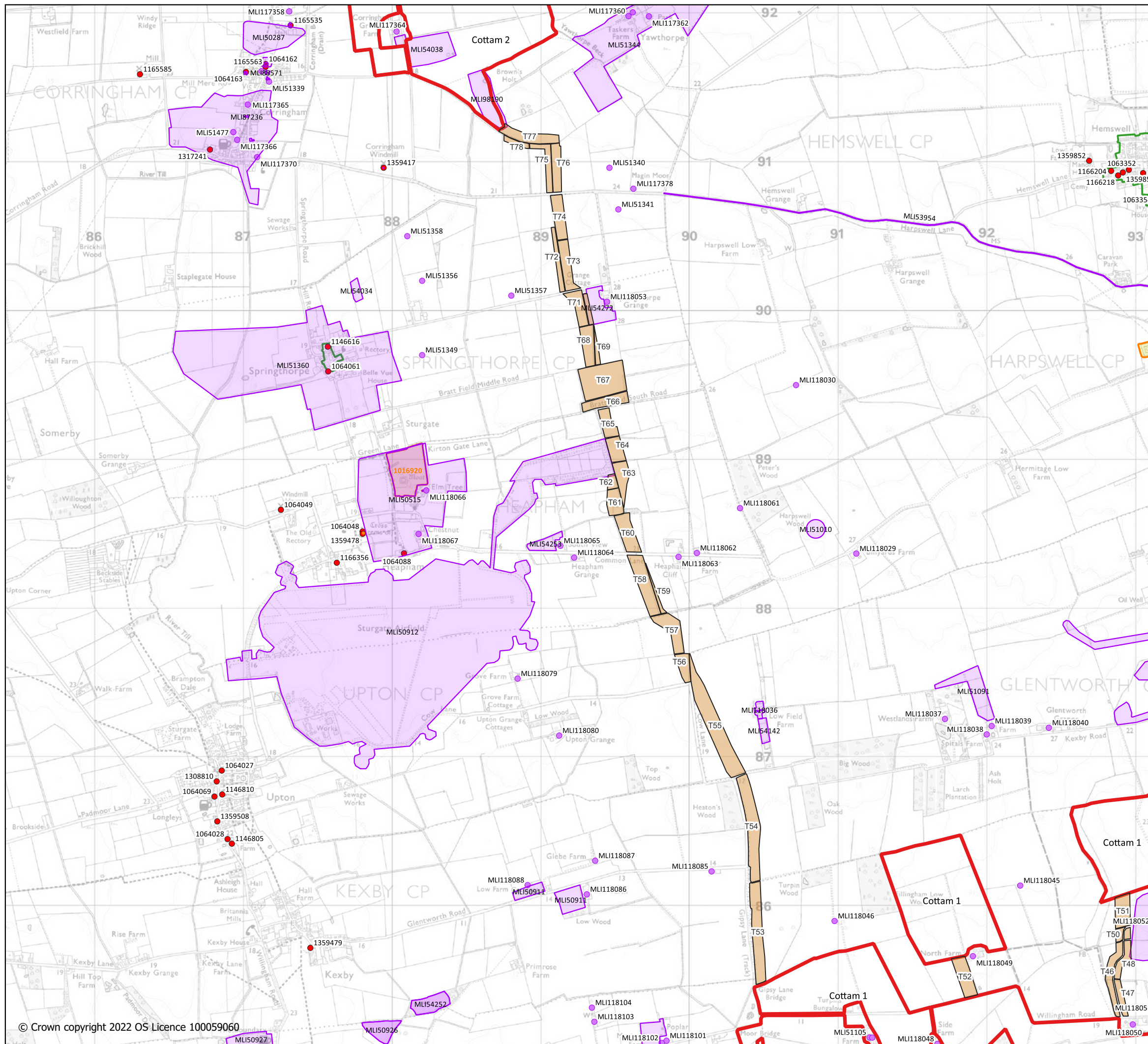
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




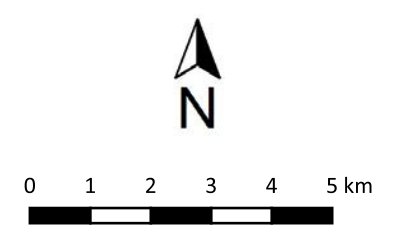
Section 2: proposed cable route adjoining land parcels within the proposed Cottam 1 Solar Project with the location of NHLE and

Appendix 3

Section 3 – Areas to the south of the proposed Cottam 2 Solar Project site



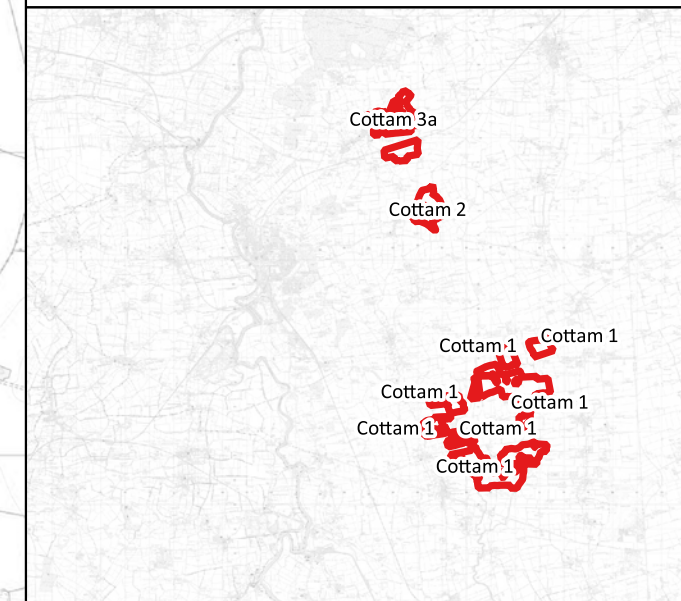
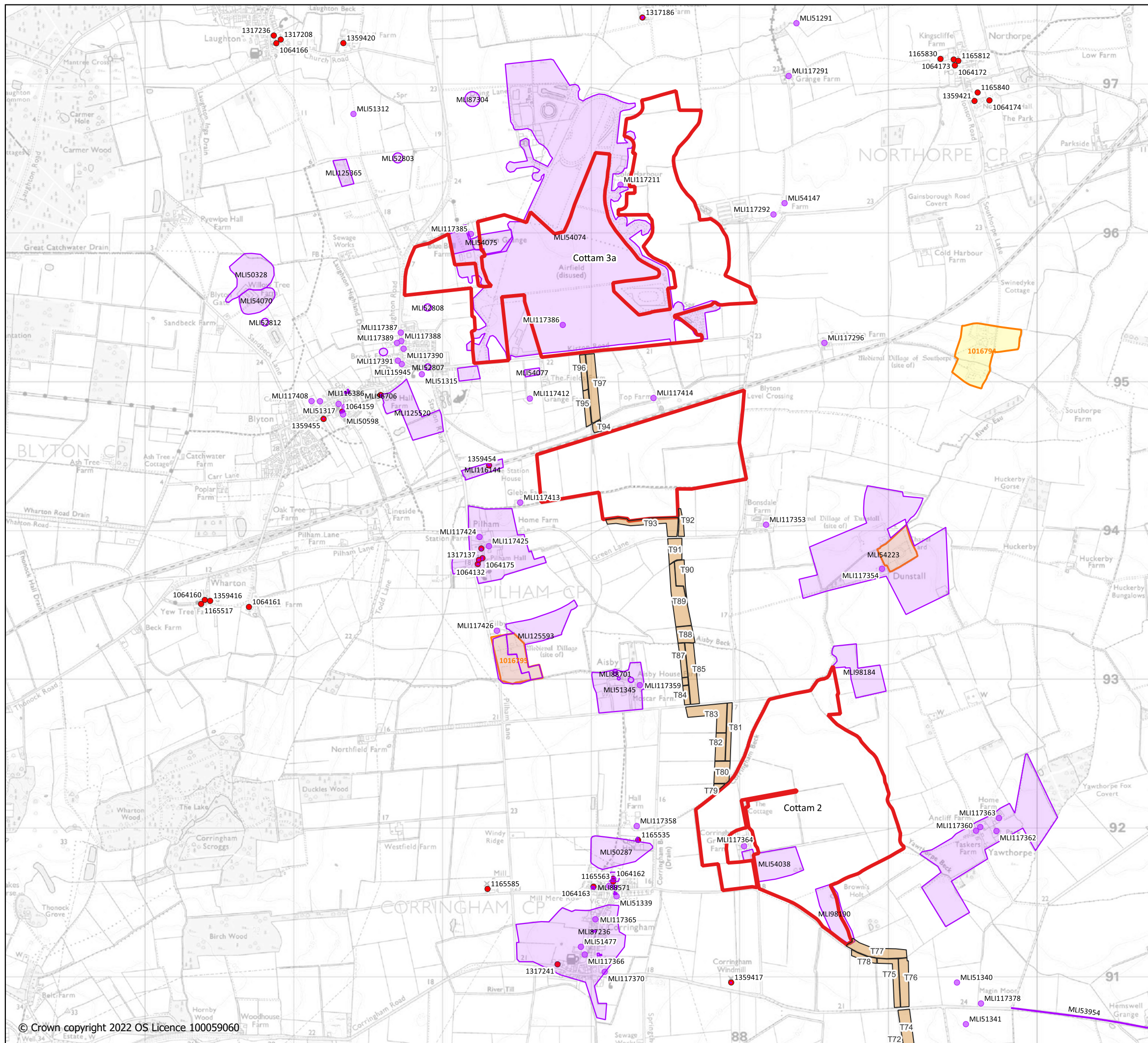
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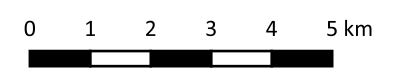
Section 3: proposed cable route to the south of the proposed Cottam 2 Solar Project with the location of NHLE and HER monuments

Appendix 4

Section 4 – Areas to the south of the proposed Cottam 3 Solar Project site



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Section 4: proposed cable route to the south of the proposed Cottam 3 Solar Project with the location of NHLE and HER monuments

Appendix 5: WSI

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