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<u>D</u>	<u>4 August 2026</u>	<u>Deadline 8 - Update following comments from Suffolk archaeological advisors received after Deadline 7</u>

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Executive Summary

This document provides an Outline Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) for Norwich to Tilbury (the 'Project'), to support the Development Consent Order (DCO) application.

Mitigation for historic buildings and historic landscapes is accounted for in the Outline Code of Construction Practice (CoCP) (document reference 7.2) (Revision G) and the Outline Landscape and Ecological Management Plan (LEMP) (document reference 7.4) (Revision G) and therefore is not discussed in this document.

This document also presents the approach to engagement and approvals, project management, and the post-excavation analysis and publication stages of the post-consent work.

Specific mitigation would be developed in Detailed Written Schemes of Investigation (DWSI) that will be prepared following agreement of this outline document. Mitigation has been developed based on the Historic Environment baseline, mainly derived from the archaeological surveys and trial trenching undertaken for the Project and supplemented, where appropriate, with desk-based information.

Mitigation within this Outline AMS-OWSI is secured by Requirement 5 in the Draft DCO (document reference 3.1) (Revision G) which would require the Main Works Contractor(s) to submit, have approved by the relevant discharging authority, and comply with, Detailed WSIs that are substantially in accordance with this document. All pre-commencement operations listed in the Draft DCO (document reference 3.1) (Revision G) would be carried out in accordance with this Outline AMS-OWSI.

1. Introduction

1.1 Introduction

- 1.1.1 This document provides an Outline Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) for Norwich to Tilbury (the 'Project'), to support the Development Consent Order (DCO) application.

1.2 Overview of the Project

- 1.2.1 National Grid Electricity Transmission plc ('National Grid') owns and maintains the national high voltage electricity transmission network throughout England and Wales.
- 1.2.2 The transmission network connects the power from where it is generated to the regional Distribution Network Operators who then supply businesses and homes.
- 1.2.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989.
- 1.2.4 National Grid has developed plans for the Project. The Project would support the UK's net zero target through the connection of new low carbon energy generation in East Anglia and by reinforcing the transmission network.
- 1.2.5 The Project comprises reinforcement of the transmission network between the existing Norwich Main Substation in Norfolk and Tilbury Substation in Essex, via Bramford Substation, the new East Anglia Connection Node (EACN) Substation and the new Tilbury North Substation.
- 1.2.6 The reinforcement is needed because the existing transmission network, even with current upgrading, will not have sufficient capacity for the new renewable energy (a substantial proportion of which would be generated by offshore wind) that is expected to connect to the network over the next 10 years and beyond. Completion of the Project, together with other new reinforcements across the country, will meet this future energy transmission demand both in East Anglia and across the UK.
- 1.2.7 The Project comprises:
- A new 400 kilovolt (kV) electricity transmission connection of approximately 180 km overall length from Norwich Main Substation to Tilbury Substation via Bramford Substation, a new EACN Substation and a new Tilbury North Substation, including:
 - Approximately 159 km of new overhead line supported on approximately 509 pylons, either standard steel lattice pylons (approximately 50 m in height) or low height steel lattice pylons (approximately 40 m in height) and some of which would be gantries (typically up to 15 m in height) within proposed Cable Sealing End (CSE) compounds or existing or proposed substations

- Approximately 21 km of 400 kV underground cabling, some of which would be located through the Dedham Vale National Landscape (an Area of Outstanding Natural Beauty (AONB¹))
 - Up to seven new CSE compounds (with permanent access) to connect the overhead lines to the underground cables
 - Modification works to connect into the existing Norwich Main Substation and a substation extension at the existing Bramford Substation
 - A new 400 kV substation on the Tendring Peninsula, referred to as the EACN Substation (with a new permanent access). This is proposed to be an Air Insulated Switchgear (AIS) substation
 - A new 400 kV substation to the south of Orsett Golf Course in Essex, referred to as the Tilbury North Substation (with a new permanent access). This is proposed to be a Gas Insulated Switchgear (GIS) substation
 - Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation
 - Ancillary and/or temporary works associated with the construction of the Project.
- 1.2.8 In addition, third party utilities diversions and/or modifications would be required to facilitate the construction of the Project. There would also be land required for environmental mitigation and Biodiversity Net Gain (BNG).
- 1.2.9 As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.
- 1.2.10 Further details of the Project are included within Environmental Statement (ES) Chapter 4: Project Description (document reference 6.4) (Revision B) and shown on ES Figures 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

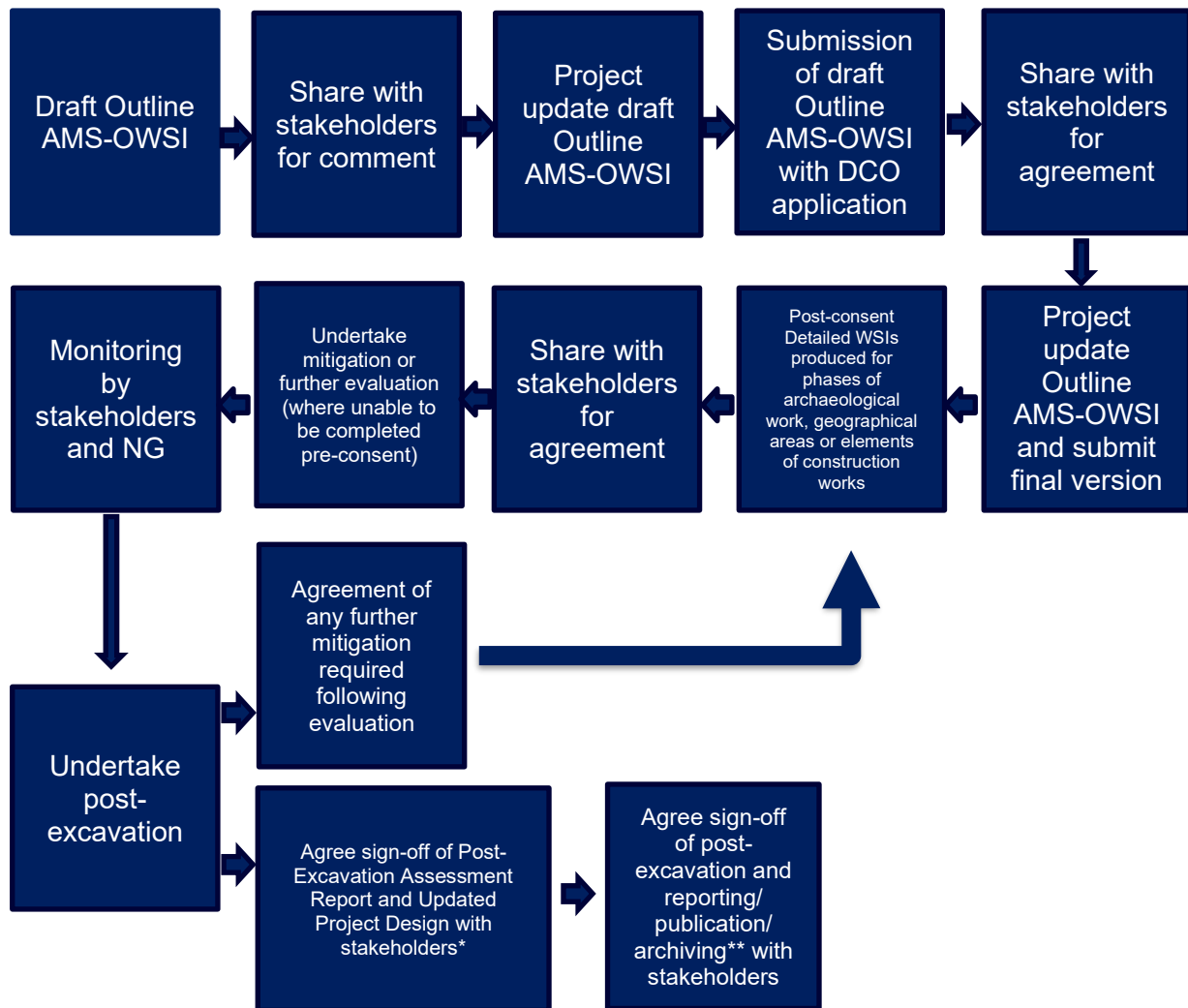
1.3 Purpose of the Outline AMS-OWSI

- 1.3.1 The purpose of this document is to set out the guiding principles and methodologies for post-consent detailed archaeological evaluation and archaeological mitigation. For archaeology, its primary function is to ensure that the impacts of the development on archaeological heritage assets are mitigated. Mitigation for historic buildings and historic landscapes is accounted for in the Outline Code of Construction Practice (CoCP) (document reference 7.2) (Revision G) and the Outline Landscape and Ecological Management Plan (document reference 7.4) (Revision G) and therefore is not discussed in this document.
- 1.3.2 This document details the archaeological preservation in situ management and archaeological investigations and recording, proposed as mitigation for the impacts of the development upon archaeological heritage assets.

¹ National Landscape is the rebranded name of an AONB from 22 November 2023

- 1.3.3 The first principle of archaeological mitigation is to preserve or protect archaeological remains wherever possible or, where this is not possible, to implement a structured programme of archaeological investigation and recording.
- 1.3.4 For some areas of the Project impact geophysical (magnetometer) survey and archaeological trial trenching has been undertaken to date. This is summarised in Section 1.8. Alongside the detailed desk-based information included in assessment this is considered to provide a reasonable basis for assessment necessary for the purposes of the ES (document reference 6.11) (Revision D). It is expected that additional archaeological trial trenching would also be carried out post-consent at locations along the Project, for example where access was previously not possible. The purpose of this would be to inform the detailed mitigation requirements.
- 1.3.5 Evaluation works agreed prior to consent of the Project will be agreed through a site-specific WSI (SSWSI) for the relevant fieldwork. Mitigation, and any evaluation agreed post-consent, would be subject to a DWSI. It is anticipated that the SSWSIs for the Phase 2 archaeological trial trenching will be agreed with the relevant LPAAAs in 2026 prior to consent.
- 1.3.6 This document also presents the approach to engagement and approvals, project management, and the post-excavation analysis and publication stages; a flow diagram of the process is shown in Image 1.1.
- 1.3.7 This document describes the types of mitigation that could be undertaken and the process for agreeing appropriate mitigation with relevant stakeholders. The mitigation proposed in the ES (document reference 6.11) (Revision D) assessment will and have been developed in Detailed Written Schemes of Investigations (DWSIs). Appendix B of this document contains mitigation proposed by National Grid for some of the priority evaluation areas that have been completed to date. Mitigation has been developed based on the Historic Environment baseline, mainly derived from the archaeological surveys and trial trenching undertaken for the Project and supplemented, where appropriate, with desk-based information.
- 1.3.8 This document, together with seven of the DWSIs (document references 8.18 to 8.24) prepared by the Applicant, will be resubmitted to the Planning Inspectorate at Deadline 7 of the Examination on Tuesday 21 July 2026. Comments received from stakeholders on the Outline AMS-OWSI and DWSIs have been considered in the updated versions of these documents. Requirement 5 (3.1 Draft DCO) (Revision G) secures the evaluation and mitigation set out in this document and the mitigation set out in the seven DWSIs (document references 8.18 to 8.24).

Image 1.1 Flow diagram of mitigation WSI process



* All costs for detailed assessment, reporting, publication, and archiving must be agreed and secured at the Updated Project Design stage (see Section 6.3).

** Archive deposition costs for Suffolk must also be secured at this stage, as the County Archaeology Store is the only suitable repository. Digital archive deposition costs must be secured at the same stage, with ADS as the required repository for Suffolk.

1.4 Scope of the Outline AMS-OWSI

1.4.1 This document follows the approach to mitigation set out in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) of the ES (Volume 6 of the DCO application) and mitigation measures in the Outline CoCP (document reference 7.2) (Revision G). The document also sets out the approach to further archaeological evaluation. Mitigation in the Outline CoCP is secured by Requirement 4 and further archaeological evaluation and mitigation within this Outline AMS-OWSI is secured by Requirement 5 in the Draft DCO (document reference 3.1) (Revision G) which would require the Main Works Contractor(s) to submit, have approved by the relevant discharging authority, and comply with, Detailed WSIs that are substantially in accordance with this document. All pre-commencement operations listed in the Draft DCO (document reference 3.1) (Revision G) would be carried out in accordance with this Outline AMS-OWSI and relevant DWSIs.

- 1.4.2 The Outline AMS-OWSI sets out the framework for archaeological mitigation of sites affected by the Project. This document conforms with current good practice as defined by national, local and professional standards, and takes account of relevant guidance including but not limited to:
- The Chartered Institute for Archaeologists' (CIfA) Code of Conduct (updated October 2022) together with the newly restructured Standards and Universal Guidance (for field evaluation, excavation, monitoring and recording) (CIfA 2023a-f).
 - Historic England's guidance, including Managing Significance in Decision-Taking in the Historic Environment (GPA2) (Historic England, 2015a) and The Setting of Heritage Assets (GPA3) (Historic England, 2017)
 - Overarching National Policy Statement for Energy (EN-1) (NPS EN-1) (Department for Energy Security and Net Zero (DESNZ), 2024a)
 - The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024) (particularly Section 16) and associated Planning Practice Guidance
 - DCO requirements and relevant local planning policies where applicable
 - Archaeological fieldwork standards/guidance produced by Norfolk County Council, Suffolk County Council Archaeological Service or Essex County Council.
- 1.4.3 This framework ensures that the proposed archaeological mitigation strategy is consistent with nationally recognised professional expectations and statutory planning requirements.
- 1.4.4 The mitigation measures proposed within this Outline AMS-OWSI are informed by established approaches set out in recognised national guidance, such as the *Design Manual for Roads and Bridges* (DMRB) LA 106 (*Cultural Heritage Assessment*, National Highways, 2020), energy policies EN-1 and EN-5 (Department for Energy Security and Net Zero, 2024a, 2024b), and relevant CIfA guidance (CIfA, 2020a, 2020b, 2020c, 2022a, 2022b, 2023a, 2023b, 2023c, 2023d, 2023e, 2023f). While the Project is not a road scheme, this guidance provides nationally recognised approaches to mitigation strategies for archaeological remains within linear infrastructure contexts. Its principles are broadly applicable to large-scale infrastructure projects, including linear energy developments.
- 1.4.5 In line with guidance in DMRB LA 106, the proposed mitigation measures include avoidance, preservation, or investigation and recording.
- 1.4.6 Embedded, standard and additional mitigation measures relevant to the Historic Environment are described in ES Chapter 11: Historic Environment, Section 11.6 (document reference 6.11) (Revision D) and the Outline CoCP (document reference 7.2) (Revision G). Standard and additional mitigation measures specific to the Historic Environment are secured through Requirement 4 in the Draft DCO (document reference 3.1) (Revision G) which would require the Main Works Contractor(s) to prepare the OCoCP to discharge the Requirement.

- 1.4.7 Standard and additional mitigation measures for archaeology set out in the Outline CoCP include*:
- H01: Methodology and processes for further archaeological evaluation and mitigation is specified through the Outline AMS-OWSI (document reference 7.5) (Revision C). This document provides the framework for identifying, assessing, and managing archaeological heritage assets and directly informs the production of Detailed Written Schemes of Investigation (DWSIs) for specific areas or phases of the Project.
 - H02: Detailed WSIs shall set out the arrangements and responsibilities for implementing, monitoring and auditing the mitigation measures
 - H03: The location of known archaeological remains or areas where archaeological investigations will be undertaken (i.e., excavations) will be signposted/ fenced off to avoid unintentional damage
 - H04: Where a previously unknown heritage asset has been discovered, or a known heritage asset has proven to be more significant than foreseen at the time of application, during construction activities, the Project's Archaeological Clerk of Works will inform the LPA and Historic England and agree a solution that protects the significance of the new discovery, through preservation or excavation and recording, whichever is practicable within the Project construction requirements. This will be secured through a DWSI, which could include a Preservation In Situ Management Plan, in line with the approved Outline AMS-OWSI (Revision C). The Main Works Contractor(s) will be responsible for making sure construction staff are aware of what to do in the event of an unexpected heritage asset. This will include toolbox talks within site inductions
 - H05: LPA Archaeological Advisors will have access to the Project to monitor and sign-off relevant work. No construction can commence within areas identified for archaeological mitigation without sign off from the relevant LPA Archaeological Advisor.

* Section 5.3 of this document sets out the detailed mitigation measures that are in place for the archaeological process, archaeological evaluation and mitigation.

- 1.4.8 The Archaeological Clerk of Works (ACoW) will develop a tool box talk on the identification and reporting of unexpected archaeological remains during construction works. The illustrated talk will be given by a suitably qualified member of the archaeological contractor(s) staff or ACoW to the Project construction staff. The talk will include that any findings will be immediately reported to the Archaeological Clerk of Works on site who, following initial investigations to establish the validity of any remains, report the findings on the relevant stakeholders as appropriate.

1.5 Structure of the Outline AMS-OWSI

- 1.5.1 Chapters 1 to 4 of this document comprise the outline archaeological mitigation strategy. They describe the principles to be applied when designing and implementing a programme of archaeological evaluation and archaeological mitigation for the Project. They propose strategies and approaches for the protection of archaeological remains to be retained and for the investigation, recording, analysis, and publication of archaeological remains to be removed in advance of construction.

- 1.5.2 Chapter 5 of this document comprises the Outline Written Scheme of Investigation (OWSI), which includes the outline scope for the Phase 2 archaeological evaluation trial trenching. The application strategy for each of the mitigation approaches is discussed and outline method statements are presented. These would form the basis of the works to be detailed in the DWSIs.
- 1.5.3 Chapter 6 of this document details the requirement for post-excavation analysis, publication and deposition of archives arising from the programmes of archaeological fieldwork and other heritage work arising from the mitigation programme.

1.6 Status of this Document

- 1.6.1 This Outline AMS-OWSI has been prepared for submission alongside ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and ES Appendices 11.1-11.7 (document references 6.11.A1 – 6.11.A7) Revisions A – D) to support the application for development consent.
- 1.6.2 This Outline AMS-OWSI has been agreed with Historic England and the archaeological advisors to Norfolk and Essex County Councils. National Grid is awaiting response on Revision C of this document from the archaeological advisor to Suffolk County Council.

1.7 Roles and Responsibilities

- 1.7.1 This Outline AMS-OWSI has been prepared for submission alongside the ES (Volume 6 of the DCO application).
- 1.7.2 National Grid (the Applicant for the Project) will establish the appropriate roles and responsibilities for site staff as set out in the Outline CoCP (document reference 7.2) (Revision G).
- 1.7.3 The Local Planning Authority Archaeological Advisors (LPAAA), working with the discharging authority, will be responsible for confirming that the requirements of the DCO are met, in accordance with the DCO requirements relating to archaeology. The Local Planning Authority Archaeological Advisors will be responsible for final sign off and approval of all mitigation measures, post-excavation assessment, updated project design, publication, outreach and deposition of archive.
- 1.7.4 National Grid will appoint an Archaeological Clerk of Works (ACoW) for the Project. The ACoW will be a suitably qualified and experienced archaeologist appointed to act on behalf of National Grid. The ACoW will be responsible for liaising with the Local Planning Authority Archaeological Advisors and the Project team to ensure that evaluation and mitigation measures are correctly implemented, monitored, and maintained during the construction phase of the works. This will include monitoring the Archaeological Contractor's work to ensure compliance with the DWSIs and this Outline AMS-OWSI and monitoring the specific construction activities to ensure compliance with all archaeological mitigation requirements, including protection measures, set out in the Outline CoCP (document reference 7.2) (Revision G). The ACoW will also advise the project team on archaeological constraints, including ensuring that constraints identified through the DWSIs are communicated appropriately and incorporated into project-wide constraints information, and will provide toolbox talks or other site briefings where required to inform site personnel of archaeological and historic environment constraints.

- 1.7.5 National Grid will appoint one or more Archaeological Contractor(s) to carry out the archaeological evaluation and mitigation fieldwork. The Archaeological Contractor(s) or National Grid's Archaeological Advisor will be responsible for the production of DWSIs for each stage of archaeological investigation. Where a DWSI is prepared by National Grid's Archaeological Advisor, including where this occurs prior to the appointment of an Archaeological Contractor, the relevant DWSI shall contain provision for the appointed Archaeological Contractor to prepare a Contractor's Method Statement (CMS). The CMS shall confirm compliance with the DWSI and set out how the works defined in the DWSI will be delivered. The CMS shall include, as appropriate, details of staffing, specialist provision, plant, programme, site procedures and any contractor-specific methodologies and insurance details. National Grid's Archaeological Advisor will submit the DWSIs to the LPA for approval subject to review by the appropriate LPAAA, and where required Historic England. Where a CMS is required under the DWSI, the CMS shall be submitted to the LPAAA for review and approval. Archaeological fieldwork shall not commence until an approved DWSI, and where appropriate CMS, is in place.

1.8 Summary of Evaluation Fieldwork Undertaken by the Project

- 1.8.1 The results of the evaluation fieldwork completed to date for the priority areas are contained in ES Appendix 11.3: EACN Geophysical Survey Report (document reference 6.11.A3), ES Appendix 11.4: Geophysical Survey Results Report (document reference 6.11.A4) (Revision D), ES Appendix 11.5: Trial Trenching Results Reports (document reference 6.11.A5) (Revision B) and ES Appendix 11.6: Geoarchaeological and Archaeological Monitoring of Ground Investigation Works Report (document reference 6.11.A6). The results of this fieldwork are summarised in the ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and included in assessment in ES Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D).

- 1.8.2 below provides a summary of the progress to date and future programme for the archaeological evaluation fieldwork for the Project. The table refers to priority and non-priority areas for fieldwork. Priority areas have been defined based on reduced design flexibility, construction methodology, and the associated extent of archaeological impact likely to result from their construction. The Limits of Deviation (LoD) allows for greater flexibility at the construction stage for some elements of the Project than others, for example the overhead line in comparison to temporary construction compounds. The priority areas have less design flexibility in the LoD than the non-priority areas. Construction programme considerations have also informed the classification of priority areas. Priority areas comprise:
- 400 kV underground cable, including the associated haul road works
 - Cable Sealing End compounds
 - Temporary construction compounds
 - Substations.
- 1.8.3 Non-priority areas comprise:
- Overhead line sections of the Project, including the associated haul road works
 - Construction laydown areas and highway mitigation compounds
 - Third party infrastructure works
 - Ecological and landscape mitigation areas/biodiversity net gain (BNG) areas (although noting that the majority of these areas within the Order Limits have been evaluated as part of the priority phase of work)
 - All as yet unidentified areas of below ground construction impact.
- 1.8.4 In most cases the classification of priority areas for geophysical survey and archaeological trial trenching are the same. However, for geophysical survey the priority areas also include some sections of proposed overhead line or 3rd party mitigation works where there is assessed to be higher archaeological potential. As there is greater flexibility in final design for these design elements and the working areas, and consequently areas of physical impact, are smaller, they have not been included in the priority areas for archaeological trial trenching, but these elements are included in the phase 2 evaluation.
- 1.8.5 Geophysical survey undertaken for the Project comprises magnetometer survey and no other geophysical techniques have been deployed. The results presented, therefore, relate exclusively to magnetometer data and without “ground truthing” the results should not be interpreted as a comprehensive characterisation of the archaeology within a given area/site.

Table 1.1 Summary of evaluation progress and ongoing programme

Fieldwork Type	Phase/ Comment	For DCO submission and included in ES	Post DCO submission / Pre-Determination pre-examination	Post DCO Consent / pre commencement	
Geophysical Survey	Priority areas (Phase 1)	Surveys in 2025 focused on areas where access was not possible in 2024 or where design change altered the location for the survey. Approx. 90% complete and included in the ES (Volume 6 of the DCO application).	An additional 6% (approx. 96% total) of results were included as supplementary environmental information to support the ES (Volume 6 of the DCO application), to be ready for start of examination.	n/a	Any areas where access not possible pre-consent or if detailed design should alter areas of impact. This document includes provision for this and will be secured through the DCO.
	Non-Priority areas (Phase 2)		Approx. 30% of areas were included as supplementary environmental information (SEI) to support the ES (Volume 6 of the DCO application) ahead of DCO examination.	A further 54% (approx. 84% total) of the Phase 2 geophysical survey has been completed since the SEI submission and results will be submitted at Deadline 6 of the Examination.	Any areas where access not possible pre-consent. This document includes provision for this and will be secured through the DCO.
Archaeological Trial Trenching (ATT)	Priority areas (Phase 1) (estimate 3,400 trenches)	Site 1: Complete (283 trenches) Site 8: Three areas complete (330 trenches) Site 9: Five areas complete (280 trenches) Site 10: Complete (505 trenches)	Completion of sites 2, 5, 6, 7, 8, 9, and 13. These have been included as supplementary environmental information to support the ES (Volume 6 of the DCO application), to be	Any outstanding results will be shared and agreed with stakeholders in 2026.	Area 23N in Site 009 will be trenched in 2026 as part of the Phase 2 trial trenching, whilst the evaluation of the remaining areas (24S,32E in Site 009, 43 in Site 010, and 52 in Site 014) will be undertaken post-consent.

Fieldwork Type	Phase/ Comment	For DCO submission and included in ES	Post DCO submission / Pre-Determination pre-examination	Post DCO Consent / pre commencement
		1398 trenches complete overall (approx. 40%)	ready for the start of examination. Trial trenching has been completed for 89% of the priority areas in advance of examination. Remaining Sites (11, 12, 14, 15, 16). These sites comprise temporary construction compounds, substation works and short sections of underground cable near Fairstead and Tilbury (Essex). Fieldwork has been completed in 2026, except where specified in Section 1.9 of this document.	Any areas where detailed design alters areas of impact. Provision for the post-consent work will be secured through the DCO.
	Non-Priority areas (Phase 2)	Trial trench evaluation of non-priority areas which will include all identified areas of below ground construction impact, will be agreed with Local Planning Authority Archaeological Advisors and is expected to follow the same approach to areas of physical impact from construction as for the priority areas.	Expectation that ATT will continue during 2026 (examination and pre-determination) to ensure information available to inform detailed design and enable ongoing agreement of mitigation with stakeholders.	Any areas where access not possible pre-consent. This document includes provision for this and will be secured through the DCO.

- 1.8.6 The following assessment report was submitted with the DCO Application: Site 001 (Essex). This report has been issued to Essex HER.
- 1.8.7 The following assessment reports were submitted with the SEI in January 2026: Site 009.1, Site 010, Site 013, Site 015 (Essex); Site 007 (Suffolk); Site 002 (Norfolk). These reports have been issued to the relevant HERs.
- 1.8.8 The following assessment reports are either in production, are under review by the Applicant, or with the Archaeological Contractor following review by the Applicant: Site 009.2, Site 011, Site 012 (Essex); Site 005, Site 006, Site 008 (Suffolk). These reports will be issued to the relevant HERs once updated versions will be received by the Applicant.
- 1.8.9 The Archaeological Contractor has supplied the Applicant with interim reports for all the archaeological trial trench areas thus far completed.

1.9 Outstanding Priority (Phase 1) Archaeological Trial Trenching

- 1.9.1 The vast majority of the priority archaeological trial trenching was completed by the submission of the DCO and the subsequent submission of the Supplementary Environmental Information (SEI) to the Planning Inspectorate in January 2026. The following table indicates which priority areas were not completed and the reason for their omission. All the outstanding priority areas are located within the county of Essex.

Table 1.2 Summary of Outstanding Priority Archaeological Trial Trenching

Site	Area	No. of TTs	Reason
014	52	28	Sheep – impact to business
010	43	16	Horses – impact to business
009	32E	36	Fruit bushes – impact to business
009	24S	24	Ecological constraints
009	23N	20	Water table/land access

- 1.9.2 Area 23N in Site 009 will be trenched in 2026 as part of the Phase 2 trial trenching whilst the evaluation of the remaining areas will be undertaken post-consent.

2. Principles and Objectives for Archaeological Mitigation

2.1 Principles

- 2.1.1 This chapter of the document describes the principles that would apply to archaeological mitigation for the Project.
- 2.1.2 The principles would be applied to all archaeological work carried out across the entire Project. Those that are relevant to an archaeological mitigation area would be specifically provided in the relevant DWSI.
- 2.1.3 Archaeological mitigation is required where there would be an unavoidable impact on archaeological remains and associated deposits. An assessment of known archaeological heritage assets, using desk-based sources and the results of evaluation to date, was undertaken in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and ES Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D) (and any further environmental information – as detailed within ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and Table 1.1, regarding providing Historic Environment baseline and assessment following further evaluation).
- 2.1.4 The principles set out below seek to guide actions to ensure the conservation of heritage assets throughout the Order Limits.
- The consideration of the Historic Environment of the Project as a whole should be inclusive and include archaeological remains from palaeoenvironmental evidence up to and including remains of the last century
 - All heritage assets should be considered with appropriate weight, reflecting their value, which could be subject to change in the event of discovery of currently unknown archaeological remains or new information on known archaeological remains as a result of a programme of archaeological evaluation (geophysical survey and trial trenching)
 - Archaeological works should be undertaken to a high standard in accordance with the relevant ClfA Codes of Conduct and Standards and Universal Guidance, and should reflect both the value of the heritage assets and the scale and impact of the Project
 - The design of mitigation work should take into account applicable Government guidelines on planning and archaeology, including the relevant National Policy Statements, such as Overarching National Policy Statement for Energy (EN-1) (Department for Energy Security and Net Zero, 2024a), National Policy Statement for Electricity Networks Infrastructure (EN-5) (Department for Energy Security and Net Zero, 2024b) the NPPF (Ministry of Housing, Communities and Local Government, 2024), and the National Planning Practice Guidance (NPPG), as well as standards and guidance issued by Local Planning Authorities

- Organisations and individuals undertaking archaeological work along the Project should do so within the ethical and professional standards set out in the ClfA Code of Conduct, Bylaws, standards and universal guidance as well as Policy Statements (<https://www.archaeologists.net/codes/cifa>) (as updated from time to time)

2.1.5 The archaeological mitigation approach in this Outline AMS-OWSI would be developed and implemented through the DWSIs in line with the following parameters:

- Adhere to professional codes, guidance, and standards including ClfA
- Ensure that all staff involved in the mitigation programme are aware of the value of the heritage assets along the Project through provision of a Project-specific induction
- Review and assess the information already available from relevant prior investigations before designing any new works
- Consider archaeological and cultural heritage evidence from all periods and its contribution to the understanding of the historic landscape and its use over time, with reference to the East of England Regional Research Framework (Association of Local Government Archaeological Officers East of England and Historic England, 2000; 2011; 2020)
- Only undertake extensive intrusive works in areas within the Order Limits where there would be an impact through development to archaeological remains
- Use information provided by other disciplines (for example, geotechnical investigations, soil management plans, landscape and ecological management plans and the Code of Construction Practice)
- All works must take account of all statutory designations.

2.1.6 Following archaeological evaluation (geophysical survey, archaeological trial trenching and, where appropriate, geoarchaeological investigation), areas of the Project that prove to be archaeologically negative and have been determined to not require further investigation/mitigation, these areas will be signed off by the relevant LPAAA and will be returned to National Grid to allow commencement of development in these areas.

2.1.7 Areas of archaeological mitigation will be informed by the significance of archaeological remains indicated by the results of trial trench evaluation. Classes of archaeological features such as post medieval field boundaries which are recorded on 1st ed OS mapping and sterile pits (where they appear in isolation) are unlikely to require further mitigation. In agreement with the LPAAA, any such areas not defined for mitigation will be returned to National Grid.

2.1.8 Where mitigation excavation is deemed necessary, excavations will only take place within the bounds of the Order Limits and only within areas where the Project will result in physical below ground impacts.

2.1.9 Appendix B details the mitigation excavation areas proposed by National Grid and identified through the Priority geophysical and trial trenching surveys, and the results of earlier phases of archaeological fieldwork recorded in the relevant HER unrelated to the Project. The appendix is supported by Figure 2 – Proposed Archaeological Mitigation for Priority Evaluation Areas. The identification of these mitigation areas was based on dated archaeological remains, or remains the morphology of which

suggested occupational or funerary activity, that have the potential to further relevant research aims as identified in the East of England Regional Research Framework (EERRF) (Association of Local Government Archaeological Officers East of England and Historic England, 2000; 2011; 2021). These mitigation areas will be reviewed by the relevant LPAAA and the Applicant will consult with the LPAAA in order to reach agreement.

- 2.1.10 As more of the Project is archaeologically evaluated through the Phase 2 geophysical and trial trench surveys, to the extent further areas are identified where additional archaeological mitigation will be required then such areas will be identified in consultation with the relevant LPAAA and using the same criteria as above, i.e. that the remains have the potential to further relevant research aims as identified in the EERRF.
- 2.1.11 To avoid delays in, and to facilitate the construction phase of the Project, the mitigation of the temporary haul road, where it passes through the mitigation areas set out in Appendix B, may have to be carried out in advance of the full excavation of the mitigation area(s). If this does occur, suitable safety considerations will be implemented to protect both the Main Works Contractor(s)' and the Archaeological Contractor(s)' staff and the measures taken will be recorded in the relevant DWSI.

2.2 Objectives

- 2.2.1 The following objectives set out the practical outcomes that the archaeological mitigation strategy must deliver. They convert the overarching principles in Section 2.1 into clear, measurable actions to guide all stages of work, from evaluation and excavation through to outreach, analysis, publication and archive deposition.
- 2.2.2 All those undertaking archaeological work associated with the Project would:
- Ensure a detailed programme of archaeological work is in place to appropriately mitigate impacts on any archaeological remains due to the Project, informed by archaeological evaluation (geophysical survey and trial trenching) for all areas of impact
 - Promote high quality research using appropriate excavation methodologies and scientific techniques to explore a transect through the landscape and investigate past settlement patterns, develop new research questions to be addressed through the Project's archaeological investigations contributing to relevant regional and national research frameworks
 - The results of archaeological investigation would be published within an appropriate period following assessment and analysis (see Chapter 6 for further details). The results of fieldwork interventions should be combined into a single report or several thematic reports
 - Ensure that the results of the investigations are:
 - Made publicly available in an appropriate format for assimilation into the relevant Historic Environment Records (HERs)
 - Disseminated in a timely manner via the Online Access to the Index of Archaeological Investigations (OASIS) and the Archaeological Data Service
 - Disseminated through public engagement outreach during and post fieldwork where possible.

2.3 Aims of Mitigation Techniques

- 2.3.1 Archaeological mitigation for the Project would take various forms, ranging from preservation of a site in situ, excavation, sampling and monitoring and recording. Further details of these techniques are contained within Chapter 5. The mitigation techniques that may be required for the Project, and the aims of each technique, are presented in Table 2.1.

Table 2.1 Aims of mitigation techniques proposed for the Project

Ref	Mitigation Method	Description and Aim
1. Preservation in situ		
1.1	Avoidance	Primarily achieved through design as embedded mitigation but can be recommended when significant archaeological remains are discovered during archaeological work or construction. The aim is to avoid damage to heritage assets by removing any potential impact.
1.2	Burial or sealing of remains with barrier membrane	Reinstating ground level through the burying or sealing remains beneath fill material to ensure that they are not disturbed (under specific circumstances this may include use of a permeable protective barrier membrane). The aim is to avoid damage to heritage assets by removing any potential impact. Appropriate assessment is required to determine if reburial will achieve preservation in situ.
1.3	Fencing	Measures for preservation in situ would include protective fencing. The aim is to avoid damage to heritage assets by removing the potential for unintended impacts. The extent of any given asset would need to be established through geophysical survey and archaeological trial trenching prior to fencing.
1.4	Track matting	Where construction vehicle movements cannot be avoided, temporary track matting will be laid to spread vehicle loads, prevent rutting and avoid compression of the soil profile, thereby reducing the risk of harm to any buried archaeological remains. In most instances fencing will be used but matting will be used where fencing is impractical and/or it is preferred to a topsoil strip in order to remove impacts on the archaeological resource.
1.5	Control of plant movement	Where practicable the aim is for control measures (such as fencing, signage) for plant movement to avoid damage to buried archaeological remains through compression or rutting.
2. Recording of heritage assets		
2.1	Geoarchaeological deposit modelling	May be used in conjunction with 4.4. Using existing information to map the distribution of buried deposits of archaeological interest across a site or landscape. Interpretation of when the deposits accumulated and what they represent allows areas of archaeological potential to be identified. The aim is to enable subsequent fieldwork to be focused and/or the context of archaeological remains to be better understood.

Ref	Mitigation Method	Description and Aim
3. Non-intrusive archaeological fieldwork		
3.1	Controlled metal detecting	The systematic metal detecting of a given area of archaeological investigation to allow the plotting and recording of any metalwork. Controlled metal detecting will be undertaken on all areas designated for archaeological mitigation prior to the excavation areas being opened. Detecting will be completed after any surface clearance and prior to any hand excavation of archaeological features. There are two aims, firstly to create a record of the distribution of archaeological artefacts within the ploughzone, to advance understanding of the value of the archaeology of a given area and to inform the development of further mitigation, and secondly to recover any archaeological metalwork from topsoil during intrusive archaeological fieldwork.
3.2	Geophysical survey	A non-intrusive archaeological survey technique used to identify differences between buried archaeological remains and surrounding soil. Magnetometer survey is the method employed by the project due to its rapid, cost effective, non-invasive approach to archaeological prospection and its ability to detect geological, archaeological, or modern anomalies. These benefits outweigh the limitations of the method when used in areas with underlying peat and/or alluvial deposits, or to identify small ephemeral features, or ones that lack a distinctive magnetic signature. The aims of the geophysical survey is to identify the potential extent of known archaeological remains and to identify previously unknown archaeological remains that would be a risk of physical impact caused by the Project. The results of the geophysical survey will be ground truthed through archaeological trial trenching.
4. Intrusive archaeological fieldwork		
4.1	Trial trenching	This comprises the machine excavation of trenches and investigation by hand of identified archaeological remains. The aim is to determine the presence or absence, significance, extent, depth and character of archaeological heritage assets as well as their state of preservation, to inform the development of a programme of appropriate archaeological mitigation.
4.2	Detailed excavation	A programme of controlled, intrusive fieldwork with defined objectives which maps, investigates through hand-excavation and post-excavation analysis, records and interprets archaeological remains at a site or within a specified area. The aim is to create a complete record of any archaeological remains before they are lost, wholly or in part, to advance understanding of the value of the archaeological assets.
4.3	Strip, map and sample excavation	Strip, map and sample comprises the archaeologically controlled strip of a defined area within the Order Limits under the direction of a suitably qualified archaeologist. The exposed archaeology will then be planned, and the level of hand-excavation will be

Ref	Mitigation Method	Description and Aim
		determined in consultation with the LPAAA. The aim is to create a record of any archaeological remains before they are lost, wholly or in part, to advance understanding of the value of the archaeological assets.
4.4	Geoarchaeological and palaeoenvironmental investigation	Will be used in conjunction with 2.1 (Geoarchaeological deposit modelling). A programme of sample recovery and assessment/analysis/scientific dating (C-14) carried out to investigate palaeoenvironmental conditions, significance of deposits, organic artefact preservation and soil sediment development that may be relevant to the research of archaeological sites or remains found within the vicinity and the broader palaeoenvironment. Achieved through trial pit excavations or other soil sample retrieval methods (such as percussion auger or boreholes to provide sleeved samples for full analysis). The aim is to provide sufficient information and context to any archaeological remains before they are lost, wholly or in part, to advance understanding of the value of the archaeological assets, and to inform the broader understanding of palaeoenvironmental conditions in the region. Mitigation will be informed, where relevant, by the results of the investigation.

5. Monitoring during construction

5.1	Archaeological monitoring and recording	For small, defined, construction impacts, where archaeological potential is low an archaeological monitoring and recording programme may be implemented. This will: • Provide continuous archaeological oversight of all relevant groundworks. • Require an immediate halt to construction if remains are uncovered, allowing for careful hand-excavation and comprehensive recording. • Trigger an escalation protocol, informing the relevant LPAAA if discoveries prove more extensive or significant than anticipated. Any upgrade to a more robust mitigation strategy will be agreed with the relevant LPAAA and in discussion with project stakeholders to ensure heritage assets are properly investigated and documented before development resumes.
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6. Outreach and public engagement

6.1	Outreach officer	An archaeologist with specific responsibilities for outreach and engagement with the wider community.
6.2	Outreach activities	This could include presentations, talks, public events, exhibitions and maintenance and enhancement of digital outreach platforms.

Ref	Mitigation Method	Description and Aim
7. Post-excavation		
7.1	Conservation and assessment	A programme of post-excavation assessment, conservation and reporting would be carried out and presented in post-excavation assessment reports (PXA). An updated project design must be developed from the PXA's detailing a programme of full post-excavation analysis, reporting, publication and archive deposition (see Section 6.1 of the OWSI).
7.2	Analysis and reporting	A programme of post-excavation analysis will be undertaken, which will include (but not limited to): • Finds analysis • Environmental sample analysis • Appropriate scientific dating • Bayesian modelling • Human remains and faunal remains analysis • And other specialist input and reporting. Specialist analysis will be reported in post-excavation assessment reports and inform the production of an updated project design (UPD), detailing further analysis, publication, outreach, and deposition of archives.
7.3	Archiving	The deposition of the archive in an approved local museum or other repository, in accordance with local archival guidance and the creation of an appropriate digital archive to be deposited with the Archaeological Data Service (ADS). All Archives (both digital and physical) will be accompanied by an appropriate archive report and GIS shapefiles provided for inclusion in the County Historic Environment Record.
8. Publication		
8.1	Publication	Provision for publication of the results of archaeological fieldwork will be proportionate to the significance of the archaeology recorded and published in appropriate nationally recognised academic journals e.g. East Anglian Archaeology (EAA). In addition, more popular publications may be produced as part of the programme outreach. Note: As a minimum, summaries of the archaeological work undertaken within Suffolk will be provided for inclusion in the Proceedings of the Suffolk Institute for Archaeology. Note: Summaries of the archaeological work undertaken in Essex will be provided to the editor of Essex Archaeology and History.

3. Research Agenda

- 3.1.1 The Overarching National Policy Statement for Energy (EN-1) (Department for Energy Security and Net Zero, 2024a) states in paragraph 5.9.17 that, where the loss of the whole or part of a heritage asset's significance is justified, the applicant will be required to '*record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part)*'.
- 3.1.2 Advancing understanding is achieved through reference to the value of the heritage asset and the potential contribution the asset makes to the Historic Environment research agenda.
- 3.1.3 The research framework relevant to the Project is the East of England Regional Research Framework (EERRF) (Association of Local Government Archaeological Officers East of England and Historic England, 2000; 2011; 2021). The document now exists as a regularly updated, live, web-based document (<https://researchframeworks.org/eoe/>).
- 3.1.4 The EERRF was published in 2021 and built on the previous research framework published in 2000 and updated in 2011. The EERRF outlines the current understanding of the Historic Environment of the East of England region, and identifies gaps in current knowledge/understanding, and relevant research questions. The EERRF comprises period specific resource assessments and research agendas. It has been subject to periods of review and update in response to the development of understanding of the Historic Environment of the region.
- 3.1.5 The EERRF, national and local guidance, desk-based studies, geophysical surveys and the results of the archaeological trial trenching would be used to inform the research strategy and any specific research questions for each mitigation area, in consultation with key stakeholders, and would be set out in the DWSIs. The purpose of this is to advance knowledge gain, or to ensure the protection of archaeological features where they do not need to be excavated.
- 3.1.6 Each DWSI for areas of archaeological interest would be prepared substantially in accordance with this document, which is secured through Draft DCO Requirement 5 (document reference 3.1) (Revision G), and would clearly identify initial research objectives and approaches which would contribute to meeting those objectives.

4. Construction Activities Requiring Mitigation

4.1 Temporary Construction Compounds

- 4.1.1 This chapter includes details of construction activities that would require archaeological mitigation. It explains the nature of the different types of construction works in order to explain the types of potential impacts to archaeology, should archaeological remains be present in those locations. This would inform the mitigation that would be required and specified in the Detailed WSIs. Further details of construction activities can be found in ES Chapter 4: Project Description (document reference 6.4) (Revision B).
- 4.1.2 There would be an element of preparatory works/pre-commencement works/enabling works in anticipation of construction at all temporary construction sites. The working areas would be demarcated and secured by temporary fencing appropriate to the location, for example provision of stockproof fencing in grazing areas. Gated entrances would be installed at the entrance to the working areas, to secure the site. Once secured, the working area, temporary construction compounds and proposed cable sections would generally be stripped of the upper layers of soil which would be stored appropriately within the Order Limits in accordance with the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D). They would be reinstated to their former condition (or as agreed with the relevant landowner) following their use.
- 4.1.3 The following types of temporary construction compounds are proposed to facilitate construction of the Project:
- Main Works compounds (overhead line) (two proposed): These would act as the key focal points for deliveries, materials storage, fuel storage, office space, meeting facilities, welfare facilities and power generator(s) for the Project delivery teams. Main Works compounds would be approximately 275 m x 200 m. They would be typically surfaced with stone chippings over geogrid
 - Satellite compounds (overhead line) (five proposed): These would be positioned at strategic locations along the Project. They would be smaller than the Main Works compounds, approximately 130 m x 110 m, and would serve as specific working areas to provide local welfare facilities for staff and points for delivery of materials to the working areas. They would be typically surfaced with stone chippings over geogrid
 - Primary compounds (underground cable) (three proposed): These would provide storage for approximately 54 cable drums, and have approximate dimensions of 155 m x 155 m. These would allow for deliveries, materials storage, fuel storage, office space, meeting facilities, welfare facilities and crane platforms typically for unloading cable drums. They would be typically surfaced with stone chippings over geogrid. An additional six secondary construction compounds are proposed along the cable alignment which would be similar to the primary compounds but smaller to reflect the available space and Project needs at the specific location

- Substation/CSE compounds (10 proposed): These would be appropriately positioned at substation and CSE locations. These would be similar in size and arrangement to those used for the cable works, with the cable drum storage being replaced with additional laydown area
- Concrete batching plant compounds (four proposed): These would provide a location for temporary concrete batching equipment, with approximate dimensions of 62 m x 90 m. These would allow for assembly of the batching equipment, topsoil storage, aggregate storage (for concrete mixing) and Heavy Goods Vehicle (HGV) access around the equipment. Batching equipment would typically be 10 m in height. The batching plants would provide Cement-Bound Sand (CBS) for backfill of the cable trench and concrete for substation and CSE compound works. These compounds would be located at strategic positions, based on anticipated concrete/ CBS demand. They would be typically surfaced with stone chippings over geogrid
- 132 kV overhead line mitigation works compounds (17 proposed): These would be appropriately positioned within the working area for the 132 kV mitigation works and approximately 40 m x 40 m in size, located at each end of the proposed works. They would be typically surfaced with trackway
- Highway mitigation compounds (13 proposed): These are required to facilitate the construction of the highway mitigation works, for example road widening and passing places. They would generally include welfare facilities, traffic management equipment, vehicle parking and material storage. They would be typically surfaced with stone chippings over geogrid.

4.1.4 As the construction of the temporary construction compounds would require removal of soil there is potential for physical impacts to archaeology located within these areas. The construction techniques are expected to affect near-surface archaeology with no impacts expected to deeply buried deposits. On the basis of current construction information it is not expected that the static load or vehicle movements within temporary construction compounds would generate downward compaction pressures of a great enough magnitude to impact deeply buried archaeological deposits, any such impacts are expected to occur within the depth of archaeological deposits that would be investigated as 'near-surface' features through mitigation measures set out in the relevant DWSI. Where a Project works compound coincides with known waterlogged and/or organic-rich sediments, appropriate archaeological evaluation would be undertaken to assess the potential impact on stratified deposits. The scope of the evaluation works would be developed by the archaeological contractor(s)' environmental specialist in consultation with the Local Planning Authorities' Archaeological Advisor and the Historic England environmental specialist. The agreed evaluation methodology would be set out in the relevant DWSI.

4.1.5 Any soil reinstatement measures, as set out in the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision G), would also be expected to only affect near surface archaeological remains as these works would not impact a greater depth than would have been investigated through mitigation.

4.2 Haul Roads

4.2.1 The almost continuous haul roads along the entire length of the alignment are proposed to typically be constructed within the underground cable corridor and adjacent to the overhead line.

- 4.2.2 The proposed haul roads are only discontinuous at major obstructions along the underground cable and overhead line corridor such as major roads, railways, areas of environmental or historical significance and major watercourses.
- 4.2.3 For overhead line construction, the haul roads would be typically 6 m wide, with passing places (widening to 8 m) provided at typical intervals of 200 m. The frequency of passing places would be determined by site-specific conditions at the detailed design stage and the forward visibility along the haul roads.
- 4.2.4 For the construction of underground cables, CSE compounds and substations, the haul roads would be typically 8 m wide to allow for the delivery and movement of larger equipment using Abnormal Indivisible Load vehicles.
- 4.2.5 The typical cross section of the haul roads would be 21 m wide, to allow for topsoil and subsoil storage, drainage, and demarcation fencing. A standard detail showing the typical layout of the haul road is shown on the Design and Layout Plans – Traffic and Transport (document reference 2.6.3).
- 4.2.6 For the assessment of haul road construction, it is assumed that topsoil (and some subsoil) would be stripped and aggregate (e.g. stone) placed on top of the subsoil, delivered to site by HGVs. However, the Main Works Contractor(s) once appointed may adopt different construction methods or transport techniques that would not result in materially new or different effects to those assessed in the ES (Volume 6 of the DCO application).
- 4.2.7 Within the underground cable sections, the haul roads would normally be positioned central to the alignment, i.e. with cable trenches located either side of the haul roads. Therefore, no additional vegetation clearance would be required, except in some cases where the haul roads deviate from the underground cable alignment to reach a site access point onto the public highway.
- 4.2.8 In some locations, overhead line construction corridors would need to be accessed from the underground cable corridors. In these locations, a haul road is proposed to be constructed adjacent and parallel to the underground cable corridor to access the overhead lines (this is also referred to as a ‘bypass haul road’). This would be provided to separate the overhead line construction vehicle movements from the works associated with the underground cable construction. Bypass haul roads are shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B).
- 4.2.9 Temporary crossings would be required over watercourses, streams, and field ditches to maintain the haul roads along the alignment; these would likely consist of temporary bridges or culverts. Where Project related access routes cross smaller watercourses and streams a concrete culvert will be placed into the feature with some potential digging out in the base. This, however, will be minimal and it is concluded that archaeologically significant waterlogged and/or organic-rich sediments would be unlikely to be impacted by the works. However, where significant near surface archaeological remains are identified in adjacent trial trenching, mitigation may be required to manage impacts on near surface archaeology. The culvert would be overlaid by crushed stone and the haul road surfaces. All these elements would be removed once no longer required. Further detail is included in ES Appendix 4.2: Watercourse Crossing Details (document reference 6.4.A2) (Revision C).

- 4.2.10 As the construction of the haul roads would require removal of soil there is potential for physical impacts to archaeology located within these areas. The construction techniques are expected to affect near-surface archaeology with no impacts expected to deeply buried deposits. On the basis of current construction information it is not expected that vehicle movements on the haul roads would generate downward compaction pressures of a great enough magnitude to impact deeply buried archaeological deposits, any such impacts are expected to occur within the depth of archaeological deposits that would be investigated as 'near-surface' features through mitigation measures set out in the relevant DWSI. Where the haul road crosses known areas of waterlogged and/or organic-rich sediments, the depth of the overburden (topsoil and subsoil) as encountered in the archaeological evaluation and the depth of impact caused by the haul road will be assessed. If in consultation the archaeological contractor(s)' environmental specialist, the Local Planning Authorities' Archaeological Advisor and the Historic England environmental specialist agree that any such deposits would be impacted by the haul road, evaluation of the deposits would be undertaken. The scope of the evaluation works would be developed by the archaeological contractor(s)' environmental specialist in consultation with the above noted stakeholders. The relative DWSI should include an indicative methodology for the investigation of such deposits that could be appropriately adjusted to meet specific on-site requirements.
- 4.2.11 Any soil reinstatement measures, as set out in the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D), would also be expected to only affect near surface archaeological remains as these works would not impact a greater depth than would have been investigated through mitigation.

4.3 Overhead Line

- 4.3.1 The working areas around each new pylon would be cleared of vegetation and fenced appropriately. Access tracks to each pylon location would then be installed. Temporary appropriate technology / material would be required adjacent to each new pylon location, on which to place cranes, piling rigs and other plant. The stone working areas would typically be 60 m x 60 m (or 70 m x 70 m for angle/terminal/low-height suspension structures and 80 m x 80 m for low-height tension structures). Materials would be brought to site on HGVs and would include the steelwork for the pylons and the conductors (i.e. cabling) wrapped around large drums.
- 4.3.2 The base of the pylons would involve the excavation of the soil. Piling (which may include percussive) would be required at some pylon locations, subject to the ground conditions. A sample series of ground investigation has been completed (the remaining ground investigation would be undertaken by the Main Works Contractor(s) before detailed design) which would inform the foundation designs. The assessment assumes as a worst-case that percussive piling would be required at each pylon foundation.
- 4.3.3 Different foundation types can be used for lattice pylons, such as pad and column, vertical tube piles or bored mini-pile foundations, depending on the local ground conditions. The type of foundation to be used is typically identified during the detailed design stage by the Main Works Contractor(s) following intrusive ground investigation surveys.

- 4.3.4 As the construction of the pylons and surrounding working areas would require removal of soil there is potential for physical impacts to archaeology located within these areas. The construction techniques are expected to affect near-surface archaeology with potential for impacts to deeply buried deposits in the locations of the pylon foundations. Archaeological trial trenching will be undertaken prior to construction to inform a programme of archaeological mitigation. On the basis of current construction information it is not expected that the static load or vehicle movements within pylon working areas would generate downward compaction pressures of a great enough magnitude to impact deeply buried archaeological deposits, any such impacts are expected to occur within the depth of archaeological deposits that would be investigated as 'near-surface' features through mitigation measures set out in the relevant DWSI. If it is found that a pylon base will require piles or other intrusive stabilisation mechanisms, an assessment of the possible impacts of geoarchaeological and/or palaeoenvironmental remains would be made.
- 4.3.5 Any soil reinstatement measures, as set out in the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D), would also be expected to only affect near surface archaeological remains as these works would not impact a greater depth than would have been investigated through mitigation.
- 4.3.6 Other elements of the works to construct the pylons and install the conductors are not expected to cause any below ground impacts as there would be no requirement to break ground in new areas.

4.4 Substations

- 4.4.1 The Project requires reinforcement works to the existing National Grid network, including a substation extension at the existing Bramford Substation and modification works to connect into the existing Norwich Main Substation. The Project also requires the construction of the new EACN Substation and the new Tilbury North Substation. Each substation design would be unique, dependent on the proposed equipment and site-specific conditions. However, they would follow a similar typical construction sequence and programme. The typical construction sequence to construct or extend an electrical substation required for the Project would involve the following:
- Vegetation clearance and stripping of topsoil² from the proposed permanent site area and any working areas (topsoil would be stored in bunds on site, for reuse as part of landscaping proposals)
 - Set up of temporary access and temporary construction compounds including:
 - Temporary lighting
 - Temporary drainage
 - Temporary fencing
 - Laying and compaction of granular material (and asphalt where required)
 - Excavation of drainage attenuation features, installation of pipes, etc.

² Subsoil would be stripped where required as per the individual site requirements and proposed earthworks strategies. Where suitable, the subsoil would be reused within the earthworks or as part of the landscaping proposal. Where the subsoil cannot be reused it would be removed from site.

- Earthworks for construction of permanent site access and platform (including forming temporary soil bunds for storing excavated material). Where practicable, the temporary and permanent access would be combined
- Civil engineering works, to include permanent fencing, access, drainage and foundations of larger structures and/or equipment that is sensitive to ground settlement)
- Percussive piling may be required. This would be confirmed through a programme of ground investigation which would inform the foundation designs to be confirmed at detailed design. Therefore, within the ES (Volume 6 of the DCO application) it is assumed that percussive piling would be required at all new and existing substations
- Installation of structures (e.g. gantries)
- Building works, if the site is to include proposed GIS bays
- Overhead line or underground cabling works, as necessary
- Mechanical and electrical equipment installation
- Testing of equipment
- Commissioning/energisation
- Reinstatement of working areas outside the permanent substation boundary (including environmental mitigation and landscaping as required).

4.4.2 As the construction of the substation would require removal of soil there is potential for physical impacts to archaeology and, in some cases, palaeoenvironmental deposits located within these areas. The construction techniques are expected to affect near-surface archaeology with potential for impacts to deeply buried deposits in the locations of any piling works. On the basis of current construction information it is not expected that the static load or vehicle movements within other parts of substation working areas would generate downward compaction pressures of a great enough magnitude to impact deeply buried archaeological deposits, any such impacts are expected to occur within the depth of archaeological deposits that would be investigated as 'near-surface' features through mitigation measures set out in the relevant DWSI.

4.4.3 Any soil reinstatement measures, as set out in the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D), would also be expected to only affect near surface archaeological remains as these works would not impact a greater depth than would have been investigated through mitigation.

4.5 Cable Sealing End Compounds

4.5.1 Although the Project predominantly comprises overhead lines, there are four sections of underground cable. Where overhead lines transition to underground cables (and vice versa), a CSE compound is required. This would comprise high voltage equipment and gantry structures, to enable the transition between underground cables and overhead conductors.

4.5.2 A CSE compound is required at each interface between the new overhead line and the new underground cable. The typical construction sequence to install a CSE compound required for the Project would be similar to that set out for substations, above.

- 4.5.3 Percussive piling may be required in the CSE compounds. This would be confirmed through a programme of ground investigations which would inform the foundation designs to be confirmed at detailed design. Therefore, within the ES (Volume 6 of the DCO application) it is assumed that piling would be required at all CSE compounds.
- 4.5.4 Potential archaeological impacts at CSE compounds would mirror those at substations: physical effects on near-surface archaeology across the CSE compound footprints and possible effects on deeper deposits where piling is required.

4.6 Underground Cables

- 4.6.1 The standard means of installing underground cables is using opencut techniques. Typically, for opencut construction, a construction corridor 120 m wide is required for a double circuit 400 kV underground cable alignment. The 120 m width includes the haul roads, soil storage, pre-construction drainage areas, communications cables and typically six cable trenches for 18 cables (three cables per phase) assumed to be to a typical minimum depth of 1.2 m and suitably spaced apart to allow for the required heat dissipation between cables and circuit phases. This is presented in the Design and Layout Plans (document reference 2.6) (Revision D).
- 4.6.2 Standard opencut installation typically involves the following processes:
- Appropriately fencing off the working area to secure the site from trespassing and livestock
 - Vegetation would be removed where necessary and topsoil would be stripped from the working area and stored for reuse
 - A haul road would be installed along the alignment to provide access for construction vehicles to the working areas
 - Several open trenches (typically six trenches each accommodating three cables) would be excavated, ducts would be placed within the trenches and then backfilled with a surround of CBS. Telecommunication and ancillary cables are usually placed adjacent to the main cables and within the CBS surround prior to backfilling
 - Concrete joint bays would be constructed with the High Voltage Alternating Current (HVAC) cables pulled into the ducts from one joint bay to the next using a winch
 - HVAC cables would be jointed (requiring work in a controlled environment)
 - The joint bays would be backfilled and link pillars installed above ground to allow monitoring of the cables
 - At road crossings, the above works would require traffic management to safely separate the public from the construction activities. Where the road is wide enough, the trenches and ducts would typically be installed across one side of the road, while the other remains operational (using temporary control). The arrangement would then be swapped to the other side to complete the crossing. For narrower roads, a temporary closure and diversion would be required
 - Watercourse crossings would typically be undertaken by damming upstream and downstream of the cable alignment to create a dry working area. Water flows would then be pumped from the upstream side to the downstream side of the working area to maintain the flow of the watercourse.

- 4.6.3 The preferred approach for this Project is to use ducting. A ducted system would result in a more flexible construction programme and enable quicker reinstatement of ground compared to a traditional direct burial method, where the trench would remain open for much longer. There may be locations where ducting is not the best solution, such as where topography limits installation techniques. In such cases, standard open-cut methods may be employed (i.e. direct burial).
- 4.6.4 Once the cables have been installed, the temporary works including any haul roads and temporary construction compounds would be removed. The land would be reinstated to its previous condition and use (or a condition agreed with the landowner), subject to any planting restrictions, for example trees cannot be planted over the top or within 10 m of underground cables.
- 4.6.5 As the construction of the underground cable and working area would require removal of soil there is potential for physical impacts to archaeology and, in some cases, palaeoenvironmental deposits located within these areas. The construction techniques are expected to affect near-surface archaeology with no impacts expected to deeply buried deposits. On the basis of current construction information, it is not expected that the static load or vehicle movements within the construction swathe for underground cables would generate downward compaction pressures of a great enough magnitude to impact deeply buried archaeological deposits, any such impacts are expected to occur within the depth of archaeological deposits that would be investigated as 'near-surface' features through mitigation measures set out in the relevant DWSI.
- 4.6.6 Any soil reinstatement measures, as set out in the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D), would also be expected to only affect near surface archaeological remains as these works would not impact a greater depth than would have been investigated through mitigation.

Trenchless Installation

- 4.6.7 Where open-cut trench is not feasible, for example where the alignment crosses an existing live railway line or other drivers such as for environmental mitigation, trenchless installation may be required. An example of which is Horizontal Directional Drilling (HDD). Typically, for HDD, a construction corridor approximately 200 m wide is required. The underground cable would typically be at a depth of 10 m below ground level; however, the depth would depend on the methodology employed and local constraints.
- 4.6.8 There are up to five trenchless crossings proposed to construct the Project. They are shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B). The location and number of the trenchless crossings presented are subject to further micro-siting/engineering design which would be informed by ground investigation.
- 4.6.9 Trenchless installation is an expensive option, often one of the noisiest activities during construction, requires a longer programme and can be technically challenging in areas of less suitable geology. Therefore, open-cut trench installation is the preferred technique where there are no constraints.
- 4.6.10 The underground cable would be installed using a drilling or boring method (or a suitable alternative method) to pass beneath features. There are different trenchless methods that could be used, and each method would have a different construction footprint (all of which could be accommodated within the Order Limits). Depending on the technique, there may be a need to undertake several passes to make the hole wide enough to allow the ducts (pipes) to be pulled through.

- 4.6.11 Temporary discharges may be required relating to dewatering and over-pumping in the cable sections, particularly where deeper working is required such as at the trenchless crossing. It is anticipated these would be made to ground, rather than to watercourses. Where this is not practicable in localised areas, any discharge to surface water would be made in compliance with relevant consents. Following finalisation of designs and construction methodologies a programme of appropriate archaeological and palaeoenvironmental mitigation for any impacts will be designed and included in DWSIs, if required.
- 4.6.12 Some trenchless methods require use of a drilling slurry such as bentonite to support the surrounding ground while the drilling/boring commences. The use of pressurised liquids presents a risk of environmental contamination, either through loss of fluids into permeable strata or breakout of fluids at the surface. Adequate mitigation of these risks requires detailed ground investigation and further design of the trenchless crossings – further assessment of this is presented in ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B). Space for access arrangements from the public highway to the proposed trenchless crossing locations is included within the Order Limits in the event of a pollution incident during construction.
- 4.6.13 The construction methods for trenchless installation of underground cable are not expected to affect near surface archaeology in normal working, with the exception of the drive and reception locations. In these locations impacts to both near surface and deeply buried archaeological deposits could occur, due to construction passing through the full stratigraphy to reach the required depth. Within the trenchless crossing there is the possibility of a drilling slurry breakout. However, this is considered to be unlikely with the proposed mitigation of these risks as specified by GH11 and GH12 of the Outline Code of Construction Practice (document reference 7.2) (Revision G), and consequently archaeological mitigation in advance is not currently proposed. The trenchless crossing locations are subject to geophysical survey and archaeological trial trench evaluation and geoarchaeological evaluation to ensure the character and extent of any archaeology in these locations is understood. This would inform any potential mitigation requirements in the event of a drilling slurry breakout, which would be undertaken in accordance with the terms set out in a DWSI. Where it is determined that preservation in situ is achievable, the Preservation In Situ Plan included in the DWSI will include provision and procedures for monitoring, reporting, emergency response, archaeological investigation and remediation measures in the event of slurry breakout, frac-out or other unexpected ground disturbance.
- 4.6.14 The trenchless construction techniques have potential to affect deeply buried deposits depending on the potential, where identified by geoarchaeological monitoring of the ground investigation works in these locations. Where the available data from geoarchaeological monitoring of the ground investigation works suggests the potential for impacts on deeply buried deposits, a programme of geoarchaeological and palaeoenvironmental investigation will be required to establish any mitigation measures that may be required.
- 4.6.15 Currently, the trenchless crossing technique(s) to be employed are unknown but will be confirmed at the detailed design stage. When confirmed, the areas of trenchless crossing within the Order Limits resulting in below ground impacts will be reviewed with the relevant LPAAA for potential impacts on near-surface archaeological remains and, where deemed appropriate based on borehole data and information on superficial geology held by the British Geological Survey, for potential impacts on

deeper deposits of geoarchaeological and palaeoenvironmental significance. The scope of the archaeological evaluation work, and any subsequent mitigation, in these areas will be set out in relevant DWSIs and will be agreed with the relevant LPAAA and, where appropriate, the Historic England regional science advisor.

4.7 Modification and Removal of Existing National Grid Pylons

- 4.7.1 Sections of the existing YYJ and ZB National Grid overhead lines need to be modified to facilitate the connection of the existing transmission network into the new Tilbury North Substation. The works are shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and ES Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) and comprise:
- The re-routeing of the existing YYJ overhead line to a more southerly permanent alignment. This would require eight new pylons and the removal of five existing pylons
 - Undergrounding a short section (approximately 0.55 km) of the existing ZB overhead line and the construction of two new CSE compounds, each with a permanent access. In addition, three new pylons would be required and four existing pylons removed
 - A number of temporary overhead line diversions onto temporary pylons and use of the proposed permanent pylons in a temporary arrangement would be required to facilitate the works to maintain ‘live’ circuits for the YYJ and ZB overhead lines. Any temporary pylons like the permanent pylons would be approximately 50 m in height and would require similar foundations to permanent pylons, as described earlier
 - To facilitate all of the above, the YYJ and ZB overhead line conductors need to be restrung between pylons YYJ116 to YYJ129 and ZB9 to ZB22.
- 4.7.2 Where pylons are proposed to be removed, it may be necessary to establish a 60 m x 60 m working area. Typically, this area would not be stoned; instead, if ground conditions are poor, trackway may be used. Removal of pylons would involve removing the conductors by lowering cut sections to the ground, then lowering the insulators and fittings to the ground. Where a pylon is in a clear area and it is safe to do so, the pylon would be removed by ‘felling’ the whole structure. Alternatively, a mobile crane would be used to remove the structure in sections which would then be lowered to the ground. Once dismantled, the pylon steelwork would typically be broken up on site then removed. The reinforced concrete foundation would then be removed typically to a depth of 1.2 m below ground level. The excavation would then be backfilled and the ground reinstated and any waste removed from site to a suitable licensed waste management facility.
- 4.7.3 The removal of existing pylons is not expected to cause new impacts to archaeological remains as the works areas would have been affected by construction of the pylons, and if archaeological remains were present it would have been removed at this time.
- 4.7.4 Archaeological impacts related to construction of new/temporary pylons and underground cable are as described for those works above.

4.8 Third Party Infrastructure Works

- 4.8.1 Several existing overhead and underground third-party services would need to be diverted, removed, undergrounded, or protected. This is largely where they interface with the Project, for example with proposed new overhead line crossings, along Primary Access Routes or at site access point locations. The construction methodology would largely follow the same premise as per the 400 kV overhead line and underground cable proposals but on a reduced scale in terms of width of cable trenches, size of working areas, and types and sizes of vehicles required to undertake the works.
- 4.8.2 The required mitigation methods and duration (i.e. permanent or temporary mitigation) need to be confirmed with the asset owners prior to any works being carried out. However, third-party works are outlined in the paragraphs that follow.

UK Power Networks (UKPN) 132 kV Pylons

- 4.8.3 Works to remove, underground and divert existing 132 kV lattice pylon overhead line UKPN infrastructure are shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and ES Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).
- 4.8.4 It may be necessary to establish a temporary diversion of the overhead line while the mitigation works are undertaken to ensure security of supply to end users by keeping one of the circuits live. To maintain supply, one live circuit would be routed on temporary poles, masts or pylons around the area of work so that pylon removal can be undertaken in an electrically isolated safe area (the temporary diversion of the overhead lines is required for approximately eight months up to one year). Only the angle structures have been shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) as the type of structures to be used are yet to be confirmed by UKPN; additional structures between those presented would likely be required during the works. A working area with an approximate 50 m radius at pylon locations and 20 m either side of centreline along the spans to be removed/temporarily diverted would be required. Typically, this area would not be stoned; trackway would be used instead.
- 4.8.5 It is assumed that typically these works would make use of existing access points. For access to temporary construction compounds and the installation of the underground cable diversions associated with these works, a bellmouth junction would be required due to the nature and type of vehicle movements (delivery of underground cable drums) to these locations. The connection from the bellmouth to the construction swathe would typically not be stoned; trackway would be used instead.
- 4.8.6 Dismantling of pylons would be undertaken in the same way as for National Grid pylons described above.
- 4.8.7 To facilitate the underground cable, the last remaining pylon would be replaced with a terminal pylon supporting a CSE platform. From here the 132 kV underground cable diversion would be installed as per the 400 kV underground cable alignment but reduced in scope due to the smaller scale of the assets. The installation of underground cable diversions is assumed to be in a single trench typically up to 3 m in width and 1.2 m in depth to the cover (worst-case for deep ploughing). An underground cable Limits of Deviation (LoD) of 35 m has been applied. Sensitive

features would be avoided such as heritage assets, woodland including ancient woodland, and ecologically valuable habitats including Sites of Special Scientific Interest (SSSIs), County Wildlife Sites (CWS) and Local Wildlife Sites (LWS). However, it is assumed that any vegetation within the LoD would be removed to ground level during construction and reinstated where practicable following the works.

- 4.8.8 In addition to the above, to facilitate the dismantling of the PSC and PAB route (to the west of Lower Dunton Road and subsequent underground cable diversion route), a new 132 kV substation extension would be required to the west of the existing UKPN Basildon Grid Substation at Dunton Hills. This would accommodate new equipment required to facilitate the undergrounding of the PAB overhead line, due to a lack of space in the existing Basildon Grid Substation footprint. The substation extension would be approximately 80 m by 50 m with a maximum height of 15 m.
- 4.8.9 These works would be expected to cause similar types of impacts to archaeology as for the 400 kV connection, although they would be reduced in area due to the smaller working areas and greater use of trackway required for the 132 kV works. A programme of archaeological evaluation will be undertaken to inform detailed design, enabling archaeology to be avoided where practicable. Where avoidance is not possible, a programme of archaeological mitigation will be required.

UKPN Low Voltage/11 kV/33 kV and Openreach Wood Pole Infrastructure

- 4.8.10 Works to remove, underground and divert existing low voltage/11 kV/33 kV and Openreach wood pole UKPN infrastructure along the overhead line alignment are shown on ES Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and ES Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Flexibility has also been retained to allow for the undergrounding of this third party infrastructure along the existing alignment, where this would not lead to materially different significant effects assessed within the ES (Volume 6 of the DCO application).
- 4.8.11 Vehicles and equipment would be similar to that required for the proposed 400 kV overhead line and underground cable works but at a reduced scale relevant to the works. A terminal wood pole structure would be installed at each end of the section to be undergrounded to facilitate the transition from overhead line to underground cable. The installation of underground cable diversions is assumed to be in a single trench typically up to 1 m in width with 1.2 m depth to the cover (worst-case for deep ploughing). These would be routed either within the existing highway, highway verges or across farmland (using existing gaps through hedgerows where practicable). An underground cable LoD of 25 m has been applied. Sensitive features would be avoided such as heritage assets, woodland including ancient woodland, and ecologically valuable habitats including SSSIs, CWS and LWS. Any residential gardens included within the Order Limits reflect existing oversail by existing UKPN low voltage, 11 kV and 33 kV and Openreach infrastructure and access to such areas is required to facilitate removal or, for example, stringing works.
- 4.8.12 It is assumed works would be completed using suitable vehicles, for example standard 4x4 or agricultural type vehicles and an excavator (size relevant to the works), which would use the public highway or existing agreed access routes (for the wood pole line), field gates and hedgerow gaps (where practicable). It is assumed there would be no requirement to create new physical temporary access tracks.

- 4.8.13 This work comprises:
- 47 Openreach mitigation designs
 - Five UKPN low voltage mitigation designs
 - 89 UKPN 11 kV mitigation designs
 - 21 UKPN 33 kV mitigation designs (two of which are steel lattice pylon overhead lines).
- 4.8.14 These works would be expected to cause similar types of impacts to archaeology as for the 400 kV connection, although they would be considerably reduced in area due to the smaller working areas and greater use of trackway required for the low voltage works.
- 4.8.15 Where the proposed 400 kV underground cable alignment interacts with existing low voltage/11 kV/33 kV UKPN and Openreach wood pole infrastructure, it is proposed that, where necessary, the height of the existing wooden poles would be raised to allow for safe vehicle clearance underneath during construction and operation (and maintenance). A lateral LoD of 25 m has been applied. The works would require limited vegetation clearance during construction, and during operation (and maintenance) vegetation would be managed to maintain the required clearance from the overhead line similar to what is currently required for routine maintenance. Construction activities would include the provision of temporary access to the existing and proposed pole locations, the creation of a working area, the installation of new wooden poles, the stringing of new conductors and fibres, and the removal of the existing poles. It is assumed trackway would be used for the access and working areas.
- 4.8.16 These works are not expected to cause any new impacts to archaeological remains as the works areas would have been affected by construction of the original poles/pylons, and if archaeological remains were present it would have been removed at this time. The archaeological implications of these works will be revisited once final designs have been submitted.

4.9 Environmental Mitigation

- 4.9.1 All proposed environmental mitigation, such as landscape planting and ecological habitat creation, is proposed in the areas within the Order Limits surrounding or near to existing or proposed substations and CSE compounds.
- 4.9.2 The environmental mitigation proposals are set out in the Outline Landscape and Ecological Management Plan (document reference 7.4) (Revision G). These works could require removal or disturbance of soil through creation of earthworks or tree or other planting and therefore have potential to impact near-surface archaeology. Most of the areas proposed for environmental mitigation would have been affected by construction activity for this Project or other developments and so in many cases any archaeology would have already been affected (and mitigated) prior to the implementation of environmental mitigation. In any locations where archaeology had not already been affected and the nature of the environmental mitigation would cause an impact this would be subject to mitigation as set out in a DWSI.

- 4.9.3 The Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D), sets out approaches to soil management and handling for construction and reinstatement following construction works. Some of the proposed methods could cause impacts to near-surface archaeology. In many cases the construction works themselves would have already affected (and mitigated) any archaeology in these locations. However, in areas where there has been no previous archaeological impact the Outline Soil Resource Plan includes provision to ensure potential archaeological impacts would be managed and considered in determining appropriate reinstatement measures and would be detailed in the final Soil Resource Plan.

5. Outline Written Scheme of Investigation

5.1 Detailed Written Scheme of Investigation

- 5.1.1 For any areas requiring evaluation due to previous issues, such as with land access, the work would be carried out post-consent under the terms of any existing SSWSI that was agreed with the LPAAAs prior to the grant of the DCO. If a SSWSI does not exist for the relevant area a separate DWSI would be prepared setting out suitable evaluation measures. DWSIs will be prepared setting out in detail evaluation and mitigation targeting impacts defined in the detailed design of the Project. This will be informed by the strategy described in this Outline AMS-OWSI. DWSIs for trial trenching will target areas of project impact, including haul roads, SuDs, pylon working areas, compounds, laydown areas and any area which will be subject to significant ground disturbance. The results of evaluation will inform design of mitigation works in the subsequent mitigation DWSIs. DWSIs for each stage of archaeological investigation would be prepared by the relevant Archaeological Contractor(s) or National Grid's Archaeological Advisor.
- 5.1.2 Where a DWSI is prepared by National Grid's Archaeological Advisor, including where this occurs prior to the appointment of an Archaeological Contractor, the relevant DWSI shall contain provision for the appointed Archaeological Contractor to prepare a Contractor's Method Statement (CMS). The CMS shall confirm compliance with the DWSI and set out how the works defined in the DWSI will be delivered. The CMS shall include, as appropriate, details of staffing, specialist provision, plant, programme, site procedures and any contractor-specific methodologies and insurance details. National Grid's Archaeological Advisor will submit the DWSIs to the LPA for approval subject to review by the appropriate LPAAA and where required Historic England. Where a CMS is required under the DWSI, the CMS shall be submitted to the LPAAA for review and approval. Archaeological fieldwork shall not commence until an approved DWSI, and where appropriate CMS, is in place.
- 5.1.3 The specification for the archaeological works contained within the DWSIs would be written in accordance with this Outline AMS-OWSI, and the complete suite of ClfA Standards and Guidance (ClfA 2020a-c, 2022b, 2023a-f), Historic England Guidance (Historic England, 2015d, 2008, 2015a-c, 2016a-b, 2017, 2018, 2023, 2024), Local Guidance (Norfolk County Council, 2018, SCCAS 2026a-g, Essex County Council, 2020). These documents cover archaeological evaluation, excavation, archaeological monitoring and recording (watching brief), and other related fieldwork and post-excavation activities. The DWSIs will also adhere to the current ClfA Code of Conduct (ClfA 2022a) and all other relevant best-practice guidance and standards.
- 5.1.4 Separate DWSIs would be prepared for specific geographic areas of works, such as a section of overhead line construction, or for types of construction works, such as temporary construction compounds and for each archaeological phase, e.g. evaluation and mitigation. The approach will be informed by the requirements of the construction programme and the nature of archaeology to be mitigated.

- 5.1.5 Where known, each DWSI would set out the timing and order of the investigative works and include details of how the archaeological programme interacts with other construction activities, and the parties undertaking them. Each DWSI would include a programme for the archaeological work that would be referenced against key milestones/events in the overall design and construction programme. The programme set out in each DWSI would allow for flexibility to account for events such as inclement weather, site conditions and the extent a significance of archaeology encountered.
- 5.1.6 The Archaeological Clerk of Works (ACoW) will advise the Project team to ensure the constraints identified in the approved DWSIs are incorporated into the project-wide constraints maps. The ACoW will prepare Toolbox Talks and other briefings to inform all site personnel so that archaeological and Historic Environment constraints are understood before and during construction works.

Archaeological Project Team

- 5.1.7 The archaeological mitigation works, including further phases of evaluation and palaeoenvironmental assessment, would be delivered by an Archaeological Project Team under the leadership of an experienced Project Manager. The Archaeological Project Team would be provided by one or more Archaeological Contractor(s), to be appointed by National Grid. The Archaeological Contractor(s) would have prime responsibility for delivery of the full programme of archaeological mitigation as set out in the Outline AMS-OWSI including: all on and off-site works; technical and non-technical publication and dissemination; and preparation and deposition of the archaeological Project archive with the recipient museum or other appropriate storage facility.
- 5.1.8 The Archaeological Project Team would include named key specialists who would either be site-based or have a regular site presence, or who would be on-call at short notice. These would include (but not be limited to) the following roles:
- Project Manager
 - Environmental archaeology co-ordinator
 - Environmental archaeology supervisor
 - Finds co-ordinator/processing specialist
 - Lithics specialist with relevant period expertise
 - Ceramics specialist with relevant period expertise and experience of local typologies
 - Geoarchaeologist
 - Geophysicist
 - Archaeological surveyor
 - Digital data co-ordinator/manager
 - Human remains specialist
 - Animal bone specialist
 - Scientific dating specialist

- Conservation specialist
- Metal-detectorist
- Archaeological outreach officer.

- 5.1.9 The names, qualifications and CVs of the individuals fulfilling these roles would be provided by the Archaeological Contractor(s) to National Grid for information and comment, immediately after their appointment. The postholders would be in place at the start of the mitigation programme. Any changes to the named Archaeological Project Team postholders would be notified to National Grid, for information and comment.
- 5.1.10 The specialists appointed to the Archaeological Project Team would be fully integrated into the Archaeological Contractor(s)'s Project Team to actively input to the design of strategies for the DWSIs, any public archaeology and community engagement elements, and to advise throughout the fieldwork and post-excavation stages. Regular communication between specialist members of the Archaeological Project Team and the fieldwork Project Manager and field staff would be ensured through off-site planning meetings, site visits and progress meetings.
- 5.1.11 Archaeological staff (part of the Archaeological Contractor(s)'s site team) supervising the investigative works set out in the Outline AMS-OWSI and relevant DWSIs must:
- Have demonstrable experience of directing machine- and hand-stripping in alluvial, colluvial and gravel deposits and of working with the archaeological character of the Project area
 - Be fully familiar with the results of the relevant geophysical surveys, artefact collection, archaeological trial trenching, the Outline AMS-OWSI and the pertinent DWSIs.

Unexpected Finds During Construction

- 5.1.12 If unexpected finds (sites, artefacts, environmental remains or ecofacts, monuments or features) are made during construction activities, a site consultation meeting(s) would be convened between the Main Works Contractor(s), National Grid, the ACoW, the Archaeological Contractor(s), the relevant Local Planning Authority Archaeological Advisors and (if appropriate) Historic England or other key stakeholders. The site consultation meeting would consider the specific nature of any unexpected archaeological remains and the potential impacts of any construction activity on the unexpected archaeological remains. The outcomes of this meeting will inform any further archaeological work and the extent of any stand-off that may be required.
- 5.1.13 This document, as secured through Requirement 5 of the Draft DCO (document reference 3.1) (Revision G), requires that any unexpected finds must be retained in situ and reported to the relevant Local Planning Authority by the ACoW as soon as reasonably practicable. No construction can take place in the location of the unexpected finds until a suitable approach is agreed with the Local Planning Authority and executed, as appropriate. If waterlogged structures, remains, or deposits are encountered, the size of any stand-down area will also be considered to account for the risk of dewatering adjacent areas. If the relevant Local Planning Authority finds that further investigation is needed, no construction would take place within the area of the remains, until further investigation and recording is undertaken including details to be approved by the relevant Local Planning Authority.

5.2 Communication, Monitoring and Sign-Off

Communication

- 5.2.1 On a project of this size, effective communication between all parties is essential. A communication strategy for external communications about the archaeological mitigation would be developed and implemented in line with Section 3.2 of the Outline CoCP (document reference 7.2) (Revision G). Such a strategy should include the timely dissemination of plans and photographic documentation to relevant stakeholders.
- 5.2.2 Regular progress meetings would be held monthly during the programme of archaeological mitigation works between key stakeholders, including the Local Planning Authority Archaeological Advisors and Historic England, the relevant Archaeological Contractor(s), the ACoW, National Grid and Main Works Contractor(s) as required. Less regular progress meetings should also be held during the post-excavation analysis period.
- 5.2.3 The purpose of these meetings would be to update all the stakeholders on progress on archaeological mitigation across the Project, to share best practice and to ensure the overall direction of the archaeological mitigation works are carried out in line with the principles of this document.
- 5.2.4 Prior to the implementation of archaeological mitigation works as set out in each DWSI, a meeting would be held between the ACoW, National Grid, the relevant Archaeological Contractor(s), the Local Planning Authority Archaeological Advisors and the Main Works Contractor(s).
- 5.2.5 The purpose of these meetings would be to discuss the overall strategy for the delivery of the works as set out in the relevant DWSI, the initial monitoring programme by the Local Planning Authority Archaeological Advisor and to share any relevant information not captured within the DWSI.

Monitoring

- 5.2.6 Site monitoring would be the day-to-day liaison and monitoring between the ACoW and the Archaeological Contractor(s), National Grid and the Main Works Contractor, and regular monitoring of the progress and compliance with the requirements of the DWSIs and archaeological fieldwork and post-excavation work by the Local Planning Authority Archaeological Advisors.
- 5.2.7 The responsibilities of the ACoW will include (but not be limited to):
- Day to day monitoring of all aspects of the archaeological fieldwork
 - Day to day monitoring of the installation and removal of protective measures, such as temporary fencing and at sites where preservation of archaeological remains is required.
- 5.2.8 Where issues are identified, the ACoW will report to the relevant LPAAA.
- 5.2.9 The archaeological mitigation works would be subject to ongoing monitoring by the relevant LPAAA and ACoW, who would have unrestricted access to the sites, site records or any other information as may be required. The work would be inspected to ensure that it is being carried out to the required standard and that it would achieve the desired aims and objectives.

- 5.2.10 The ACoW would report to National Grid on the archaeological mitigation works on a weekly basis.
- 5.2.11 Monitoring by the relevant LPAAA would ensure that archaeological mitigation works meet the requirements of each approved DWSI.
- 5.2.12 Local Planning Authority Archaeological Advisors are required to monitor the works and associated records as they are carried out. The frequency of monitoring visits would depend on the complexity of the works and significance of any archaeological deposits.
- 5.2.13 The Local Planning Authority Archaeological Advisors would be afforded access to the archaeological works and any other information, which would be arranged as necessary and required through the ACoW who would act as coordinator in respect of access and monitoring arrangements.
- 5.2.14 Where a DWSI needs to be amended for any reason, the Local Planning Authority Archaeological Advisors (and Historic England, if appropriate) and the Main Works Contractor(s) would be consulted on any alterations to the agreed DWSIs prior to them being undertaken.
- 5.2.15 National Grid's appointed ACoW would act as coordinator of engagement between the Archaeological Contractor(s) and the relevant heritage stakeholders, to ensure the timely provision of on-site advice to the fieldwork team.

Site Sign-Off

- 5.2.16 The programme of works would require authentication of completion, and the following approach is proposed.
- 5.2.17 Once the Archaeological Contractor(s) believes the fieldwork to be completed, a sign-off meeting would be held on site (unless alternative communication is agreed) between the ACoW, National Grid, Local Planning Authority Archaeological Advisors (and Historic England, if appropriate), the Archaeological Contractor(s) and the Main Works Contractor(s).
- 5.2.18 The purpose of this meeting would be to agree that the archaeological mitigation works have been carried out to the satisfaction of all parties prior to the formal sign-off by the Local Planning Authority Archaeological Advisors.
- 5.2.19 Sites that have been completed would be subject to a formal signing off procedure, in order to allow the mitigation areas to be released to the construction team. The Archaeological Contractor(s) would submit a completion statement to the ACoW. This statement will include a final site plan, showing locations of archaeological features and interventions (in both PDF and Shapefile format). The ACoW would submit the completion statement to National Grid and the appropriate Local Planning Authority Archaeological Advisor for confirmation by the LPAAA (in consultation with Historic England, where required) that the relevant works have been completed in compliance with the relevant DWSIs.
- 5.2.20 National Grid's ACoW would act as coordinator of engagement between the Archaeological Contractor(s) and the relevant heritage stakeholders, to ensure the sign-off meeting is held in a timely manner.

Review of Interim Statements, Post-Excavation Assessment Reporting, Updated Project Design and Publication

- 5.2.21 The Local Planning Authority Archaeological Advisors and, where appropriate, Historic England would review Interim Statements, the Post-Excavation Assessment Report, specialist reports and publications.
- 5.2.22 The Post-Excavation Assessment Report and updated project design would be approved by the relevant Local Planning Authority (through the relevant Local Planning Authority Archaeological Advisors) and Historic England.
- 5.2.23 Details of the Interim Statements, post-excavation reporting, updated project design and publication are set out in Chapter 6.

5.3 Methodology for Each Mitigation Technique

- 5.3.1 This section sets out the outline method statements for each mitigation technique. These would form the basis of the works to be detailed in the DWSIs.

Preservation In Situ

Avoidance

- 5.3.2 Heritage assets and archaeological sites that will be protected by a combination of protection measures that will be put in place at the start of the construction programme to ensure their long-term survival will be identified in the DWSIs in a Preservation in Situ Plan. The Preservation in Situ Plan will set out protections during the pre-commencement, construction and operation (and maintenance) phases of the Project, where relevant.
- 5.3.3 Avoidance would be undertaken where it would be practicable to amend design/construction works areas to allow for retention of the archaeological remains in situ and where those archaeological remains are found to be of significant value to require this form of mitigation. Sufficient archaeological evaluation should have been undertaken to establish the extent and significance of archaeological heritage assets. Relevant protection measures would include temporary protective fencing which will be maintained throughout the pre-commencement works and construction stages (incorporating an additional 10 m buffer area for specific identified designated and non-designated assets where practicable and a 20 m buffer area for burials and structural remains unless otherwise agreed with the relevant LPAAA). Some sites may require archaeological photographic recording prior to protection measures to ensure that there is a record of their existing condition, prior to the start of any groundworks.
- 5.3.4 For each site or heritage asset, protection measures will be described in a DWSI and Preservation in Situ Plan prepared in consultation with the relevant Local Planning Authority Archaeological Advisors and, if appropriate, Historic England. This will also include arrangements for regular site inspections by the ACoW, maintenance requirements, and 'Tool-Box Talks' to inform all site personnel of the archaeological and Historic Environment constraints on site, the protection measures that are required and their obligations under this Outline AMS-OWSI and generally, to ensure that these are put in place and complied with. Preservation in situ sites will also be recorded on project live constraints mapping. New sites may be added to the number of sites for preservation of archaeological remains, or existing sites may be adjusted.

- 5.3.5 Archaeological photographic recording of sites will be undertaken by the Archaeological Contractor(s) before protection measures are deployed and after their removal.

Burial or Sealing of Remains

- 5.3.6 At some locations along the Project, suitable fill material as identified in the DWSI could be used to bury sensitive archaeological remains, to ensure that they are not disturbed during construction. This could include the use of a protective permeable barrier membrane where certain scenarios permit its use (Historic England, 2024). Sites would be temporarily buried beneath fill to enable specific construction requirements, e.g. soil storage, some temporary construction compounds or some temporary roads. The Historic England (2024) Assessment of Threats and Risks will be undertaken to inform the appropriateness of reburial, and prior to reburial a Reburial Checklist will be undertaken.
- 5.3.7 The Archaeological Contractor(s) will include in the DWSI methods that they intend to use to protect sensitive buried archaeological remains, including measures to prevent damage (such as deep rutting) caused by vehicles or plant. This will include detail on the effects of compression and loading (whether dynamic or static) and site-specific protective measures, including the extent of the area to be protected, the depth of fill required and the type of fill. The DWSIs will set out suitable methodologies for filling areas without disturbing or impacting sensitive archaeological remains, and for removing the fill at the end of construction.
- 5.3.8 The preservation methodology in the DWSI will be developed in line with the principles of Historic England's 'Preserving Archaeological Remains' and 'Appendix 5 – The Reburial of Archaeological Sites' guidance (Historic England, 2016a, 2024) and in consultation with the National Grid, the ACoW and the Local Planning Authority Archaeological Advisors. At each site, measures will be put in place to avoid rutting or the compaction of soft ground (topsoil and fill) until or unless adequate protection is provided (vehicles will be restricted or prohibited from traversing sensitive areas prior to fencing, the laying of a protective membrane and fill deposits/vehicle running surface, and at decommissioning).
- 5.3.9 Provision for reburial, where appropriate, will follow Historic England (2024, appendix 5) guidance.
- 5.3.10 The ACoW will give Tool-Box Talks to inform all site personnel of the archaeological and Historic Environment constraints on site, the protection measures that are required and their obligations under the DWSI, and generally to ensure that these are put in place and complied with. Following construction, any protective fill material will be removed by the Main Works Contractor(s), under supervision by the Archaeological Contractor(s), leaving the sites in their original condition.

Fencing

- 5.3.11 To demarcate those sites that require preservation of archaeological remains sufficient archaeological evaluation should have been undertaken to establish the extent and significance of archaeological heritage assets. To avoid unintentional damage during construction, temporary fencing will be installed during the start of the construction stage. The fencing will be installed by a fencing contractor(s) under the supervision of the relevant Archaeological Contractor(s).

- 5.3.12 The location and type of fencing for each site for preservation of archaeological remains will be set out in the DWSI/Preservation in Situ Plan (it may be helpful for the Archaeological Contractor(s) to combine various sites into a single DWSI). It will also set out whether any preliminary archaeological investigative work is required (before or during the installation or removal process). Requirements for archaeological investigation will be contained within the DWSIs and Preservation in Situ Plan.
- 5.3.13 The ACoW will be responsible for regularly monitoring the condition of the fencing and the Main Works Contractor(s) will be responsible for its maintenance until either construction work in that area is complete or at Project opening, at which time the removal of the fencing will be monitored by the ACoW.

Track Matting

- 5.3.14 To demarcate those sites that require preservation of potential below-ground archaeological remains and to avoid unintentional damage during construction by plant and vehicles, the use of plastic ground cover mats is encouraged (and preferred to metal mats and wooden 'bog' mats) as per Norfolk County Council standards and guidelines (2018).
- 5.3.15 Plastic ground cover mats will be installed during the start of the construction stage. The mats will be installed by an appropriately qualified contractor under the supervision of the relevant Archaeological Contractor(s).
- 5.3.16 The location and type of ground cover mats for each site for preservation of archaeological remains will be set out in a DWSI (it may be helpful for the Archaeological Contractor(s) to combine various sites into a single DWSI). It will also set out whether any preliminary archaeological investigative work is required (before or during the installation or removal process or during any decompaction or soil remediation activity). Requirements for archaeological investigation will be contained within the DWSIs.
- 5.3.17 The ACoW will be responsible for regularly monitoring the condition of the ground cover matting and the Main Works Contractor(s) will be responsible for its maintenance until either construction work in that area is complete or at first operation, at which time the removal of the ground cover matting will be monitored by the ACoW.

Control of Plant Movement

- 5.3.18 Where archaeological investigation is required, the Archaeological Contractor(s) will retain overall control of all machine excavation within the work area. Stripped zones will be clearly demarcated, and no plant or vehicle movements may enter these zones until the works described in paragraphs 5.3.19–5.3.20 have been completed and formally signed-off.
- 5.3.19 Where any archaeological investigative work is required, all machine excavation is to be under the direct control and supervision of an experienced archaeologist provided by the Archaeological Contractor(s). The topsoil, subsoil and/or overburden should also be examined for archaeological material.
- 5.3.20 All machinery is to be kept off archaeologically stripped areas until areas under the control of the Archaeological Contractor(s) have been completed and the area has been signed off by the appropriate Local Planning Authority Archaeological Advisors.

Recording of Heritage Assets

Geoarchaeological Deposit Modelling

- 5.3.21 Geoarchaeology studies should follow the guidance provided by Historic England (2015b), Norfolk County Council (2018), Suffolk County Council Archaeology Service (SCCAS) (2026a) and Essex County Council (2020). Buried soils and sediment sequences may be inspected and recorded on site at all intrusive stages of the Project by a geoarchaeologist in order to produce a geoarchaeological deposit model. Historic records of previous ground investigation, where available, may also be consulted to inform the deposit model. This model can then provide further understanding of site formation processes and, where no geoarchaeological potential is identified, may reduce or avoid the need for the collection and processing of samples during intrusive works. Deposit models can be produced at different stages of the Project and an initial deposit model may be updated following further geoarchaeological investigation to provide a final output of mitigation.
- 5.3.22 There is potential for the Project to impact superficial deposits of geoarchaeological/palaeoenvironmental value across several sections of the route. Such deposits are not restricted to waterlogged river valleys and may also include, but not be limited to, lacustrine deposits and terrace deposits of sand and gravel. The geoarchaeological/palaeoenvironmental potential of the Project will be addressed in the relevant DWSIs, and these documents will detail the investigative methodologies to be used to sample any such deposits at risk of impact by the Project. The scope of the geoarchaeological/palaeoenvironmental work to be carried out in such locations, either as evaluation or mitigation, will be discussed and agreed with the relevant LPAAA and the Historic England advisor before being set out in the DWSI. Samples will be collected for scientific dating, analysis of chemistry, magnetic susceptibility, particle size, micromorphology and/or other techniques as appropriate, following the strategy presented in the DWSI, and in consultation with the Archaeological Contractor(s)'s geoarchaeologist, ACoW, National Grid, the relevant Local Planning Authority archaeological advisor, and where appropriate Historic England.
- 5.3.23 As per the guidelines provided by Historic England (2015b), Norfolk County Council (2018), and SCCAS (2026a), the following will need to be considered to inform deposit modelling:
- Depth and extent of stratigraphy and relationship to archaeological features
 - Patterns of the accumulation of deposits, significant waterlogged organic deposits, localised features such as palaeochannels and potential land surfaces/buried soils
 - Where practicable, samples may be retrieved to assess the preservation potential of ecofacts and the suitability of material for scientific dating (see Environmental Sampling Strategy paragraphs 5.3.90-103).
 - Potential date and potential for scientific dating of critical contexts (see Scientific Dating paragraph 5.3.105)
 - The potential for the preservation of archaeological remains, including Palaeolithic remains and Pleistocene ecofacts
 - Preservation potential for palaeoenvironmental remains (ecofacts) that may provide evidence of past environmental, climate and sea-level change
 - Heritage significance at local and wider landscape-scale

- 5.3.24 Any identified evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment will be given special consideration.
- 5.3.25 Methodology for geoarchaeological and palaeoenvironmental investigation is discussed below (see Section 5.3.126-144).

Non-Intrusive Archaeological Fieldwork

Controlled Metal Detecting

- 5.3.26 Use of metal detectors will be required during all types of intrusive archaeological investigations. The requirements for metal detector use during archaeological investigations will be contained within the DWSIs.
- 5.3.27 The metal detectors used must have separate discrimination and sensitivity controls which should not be set to discriminate against iron objects.
- 5.3.28 Topsoil, subsoil or other overburden on intrusive archaeological investigation sites must be scanned with a metal detector before and during its excavation, including when it is excavated by machine, but only when the site-specific health and safety requirements deem it is safe to do so.
- 5.3.29 Exposed features and layers should be scanned by metal detector prior to, and periodically during, their excavation where it is appropriate to do so.
- 5.3.30 All spoil heaps, whether of topsoil/overburden or from excavated archaeological deposits are to be scanned with a metal detector when the site-specific health and safety requirements deem it is safe to do so. Spoil heaps on intrusive archaeological investigation sites should be kept as low in height and as spread-out as practicable to allow for metal detecting, where the site-specific requirements deem it is appropriate and safe to do so.
- 5.3.31 Where spoil is removed from a site its final destination should, where practicable, be ascertained and described in the relevant grey literature report.

Geophysical Survey

- 5.3.32 The aims of geophysical surveys are set out in Table 2.1. The following general approach will apply for geophysical surveys.
- 5.3.33 Sites that require this type of investigation will be those that are identified in DWSIs and may include new areas that arise as a result of emerging results, detailed design and unexpected discoveries.
- 5.3.34 Geophysical surveys must be carried out in accordance with relevant ClfA and Historic England, and county specific standards and guidance (ClfA, 2020b; Historic England, 2008 and 2015b; Norfolk County Council, 2018; Essex County Council, 2020; and SCCAS, 2026f).
- 5.3.35 Sites designated for detailed geophysical survey will be set out in a DWSI. The programme of works, equipment types, calibrations and configurations, details of the aims and methodology for this type of survey, together with other relevant logistical considerations, will be set out in a DWSI.

- 5.3.36 Project archives must be prepared in line with Schmidt (2013) and submitted to the relevant county archive as well as being included with the relevant Post-Excavation Assessment (PXA) and Updated Project Design (UPD) (see section 6 below).
- 5.3.37 The results of the geophysical survey will be placed fully within the context of the known nearby archaeological record and will be compared to the results of the archaeological evaluation to confirm the accuracy of the survey results.
- 5.3.38 The results of calibration checks and surveys of the test traverses must be presented as an appendix to the grey literature reports as raw data.

Intrusive Archaeological Fieldwork

Trial Trenching

- 5.3.39 At or before the pre-commencement stage or relevant construction activity, trial trenching will be undertaken in areas of Project impact that have not previously been trial trenched. The purpose of archaeological trial trenching will be to determine the presence/absence, extent, character, condition and significance of the remains in order to inform DWSIs for mitigation, if required. This archaeological trial trenching will be implemented in accordance with the OAMS-OWSI and detailed in WSIs as set out in Section 5.1 of this document.
- 5.3.40 The post-consent archaeological trial trenching will be undertaken under the terms of DWSIs, unless already agreed through a pre-existing SSWSI, which will replicate the methodology used in the pre-application evaluation stage, detailed within the Overarching Written Scheme of Investigation for Pre-Commencement Trial Trenching (Headland Archaeology 2025). The post-consent evaluation DWSIs will apply the OAMS-OWSI requirements for excavation, recording, environmental sampling and scientific dating to inform a mitigation strategy.
- 5.3.41 The scope of any post-consent archaeological trial trenching for which there is no existing SSWSI, will be described in a DWSI that will be prepared by the Archaeological Contractor(s) in consultation with National Grid, the relevant Local Planning Authority Archaeological Advisors and Historic England. The DWSIs will be approved by the relevant Local Planning Authority (on the advice of the relevant Local Planning Authority Archaeological Advisors) and Historic England, prior to works commencing in the area to which each DWSI applies.

Phase 2 Archaeological Trial Trenching

- 5.3.42 The Phase 2 archaeological trial trenching is to take place post-submission of the DCO. The Phase 2 trenching will be focussed on the pylon working areas, 132 kV underground cable, construction laydown areas, highways mitigation compounds and the temporary haul road and associated SuDs for these works and will follow the geophysical survey of these areas. The proposed Phase 2 archaeological trial trenching area is shown on Figure 1 – Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching. This area is based on the submitted design, should detailed design alter any areas of construction impact or the nature of any construction impact this would be reviewed and, where appropriate, evaluation areas would be updated. This evaluation work will comprise a 4% sample by area of these elements of the Project, unless otherwise agreed with the relevant LPAAA, with a 1% contingency to react to on-site requirements such as the widening or lengthening of

trenches, to ensure a clear understanding of the archaeological resource is achieved. The methodology for the Phase 2 trenching will follow that which is set out in the Overarching Written Scheme of Investigation for the priority archaeological trial trenching (Overarching Written Scheme of Investigation for Pre-Commencement Trial Trenching, Headland Archaeology 2025), which was produced and agreed in consultation with relevant stakeholders. The archaeological contractor(s) will also submit for approval to the relevant LPAAAs SSWSIs for the Phase 2 trial trenching areas, which will include trench plans, site-specific archaeological background and detailed methodologies.

Detailed Archaeological Excavation

General Approach

- 5.3.43 The aims of detailed archaeological excavation are set out in Table 2.1. The following general approach will apply for detailed archaeological excavation.
- 5.3.44 Sites that require detailed archaeological excavation will be identified through a programme of archaeological evaluation and defined in DWSIs for mitigation, having regard to the extent, character, significance and archaeological potential of the remains identified. Mitigation areas will be designed to extend a minimum of 10m beyond the extent of known assets (through either or both geophysical survey and archaeological trial trenching), unless the assets comprise structural remains or funerary activity, in which case the mitigation area will extend a minimum of 20 m beyond the known extent of such remains. The mitigation areas will, however, be constrained by the area of Project impact or the Order Limits, whichever is smaller.
- 5.3.45 Where significant archaeological remains are identified during stripping, excavation or other mitigation works, provision will be made in the DWSIs for the mitigation area to be extended, where necessary and practicable, within the area of Project impact or Order Limits, whichever is smaller. Any such extension will be agreed with the relevant LPAAA. Extension will only be considered where remains have clear potential to contribute to national or regional research aims. As a minimum, this will comprise a 20m extension for funerary and structural remains, and a 10m extension for all other remains, unless otherwise agreed with the relevant LPAAA.
- 5.3.46 Sites designated for detailed archaeological excavation will be stripped with back acting mechanical plant of a suitable size, fitted with a toothless ditching bucket no smaller than 1.8m wide, as set out in the DWSI. The sequencing of stripping, location of soil storage areas and arrangements for backfilling, together with other relevant logistical considerations, will be set out in the DWSI.
- 5.3.47 For sites where machine stripping is required, topsoil, subsoil and other confirmed non-archaeological overburden will be removed under the supervision of the relevant Archaeological Contractor(s) to the first archaeological horizon.
- 5.3.48 The DWSIs will reflect research aims and objectives set out in the Regional Research Frameworks and will be further developed to identify site specific aims and objectives. The detailed archaeological excavation site will be subject to hand excavation of all archaeological features, structures and deposits unless previously agreed with the relevant LPAAA and where relevant Historic England.

- 5.3.49 Excavation and recording of archaeological features and deposits will also include appropriate sampling for palaeoenvironmental and palaeo-economic indicators (for example, charred plant remains, molluscs, pollen, etc.) (see Environmental Sampling Strategy), in accordance with the DWSI and the Research Framework. Artefact and palaeoenvironmental assessments will be carried out during the course of the fieldwork; selected key features/structures will be subject to more detailed excavation and sample recovery to address the evolving research objectives of the archaeological programme.
- 5.3.50 All features will be excavated and recorded, unless otherwise agreed with the relevant LPAAA. Any initial research questions will be detailed within the DWSIs, however, it is expected that the initial research questions will need to be refined during the course of excavation as new information is identified, and new research questions are required.
- 5.3.51 The research objectives and excavation strategy set out within the DWSIs will be kept under review during the investigation at each site. A process will be set out within the DWSIs to facilitate this approach. Initial artefact and environmental sample processing will be undertaken whilst the investigation proceeds on site (including artefact spot-dating and preliminary assessment of environmental samples, see section – *Environmental Sampling Strategy*). The preliminary assessment of materials, including faunal remains, ecofacts and palaeoenvironmental proxies recovered from samples, undertaken whilst the investigation is underway, will inform any updated sampling strategy. However, the minimum sampling requirements defined in the DWSIs will be adhered to.
- 5.3.52 Palaeoenvironmental sampling and environmental sequences of Quaternary date have the potential to recover information about past human environmental interactions, human activities and evidence of environmental change. Waterlogged deposits or sequences where waterlogged deposits are present will receive particular attention. Such deposits may also preserve organic artefacts and textiles which are not ordinarily preserved in dry conditions. If waterlogged deposits are identified, the Conservation specialist and the Environmental Archaeology Coordinator or Environmental Archaeology Supervisor will be contacted for advice in the first instance, and National Grid, the ACoW, the Main Works Contractor(s), the Historic England Regional Science Advisor and the relevant Local Planning Authority Archaeological Advisors will be notified. Special consideration will need to be given to other construction activities in the vicinity when considering the impact of works on waterlogged deposits. The process applies to all waterlogged deposits.
- 5.3.53 Geoarchaeological investigations (see Geoarchaeological and Palaeoenvironmental Investigation) will focus on areas of particular interest as identified through previous and current archaeological evaluations, and in the Research Framework, and will be specifically designed to address particular research questions. National Grid, the ACoW, the Local Planning Authority Archaeological Advisors and, if appropriate, Historic England will be contacted by the Archaeological Contractor(s) and consulted about an appropriate sampling strategy and to comment on site retrieval methods. The sampling methodologies and specific research questions for Geoarchaeological Investigations will be clearly outlined in the DWSI for each relevant area.
- 5.3.54 The Archaeological Contractor(s) shall not excavate any area beyond those identified within the relevant DWSI, unless significant archaeological remains are indicated to continue beyond the excavation area and are likely to be subject to construction impact, then the excavation area may need to be extended to fulfil the requirements

of the DCO and National Policy Statement (NPS) (EN-1) (DESNZ, 2024). This will only be undertaken following consultation with National Grid, the ACoW and the Main Works Contractor(s), in consultation with the relevant Local Planning Authority Archaeological Advisors and where appropriate Historic England. As a minimum, this will comprise a 20m extension for funerary and structural remains, and a 10m extension for all other remains, unless otherwise agreed with the relevant LPAAA. This is to establish a 20m or 10m archaeological sterile area from the last archaeological feature.

- 5.3.55 The hand-excavation of deep features or deposits on site will only proceed following the design of a suitable safe working practice methodology, as required by national health and safety guidance. The DWSIs will contain appropriate methodologies to achieve safe working at depth, these will include stepping of excavations and the use of shuttering where appropriate.
- 5.3.56 The DWSI will include details for the dewatering of features and removal of water from site, including (but not limited to) pumping.
- 5.3.57 Areas defined for archaeological mitigation will be clearly demarked on site, and no plant or other vehicles not directly involved in the archaeological excavation process, will access these areas until the archaeological excavation has been completed, and the area has been formally signed off by the LPAAA and released by the LPA. All plant access to archaeological excavation areas must be supervised and directed by a suitably trained and experienced archaeologist.

Machine Excavation

- 5.3.58 Detailed archaeological excavation will be carried out at the locations identified in the DWSIs. Each detailed archaeological excavation area will be positioned using electronic survey-grade equipment. Overburden will be removed using a 360° mechanical excavator or other similar back-acting plant fitted with a toothless bucket, under continuous supervision and direction of an appropriately qualified archaeologist. Removal of overburden should be undertaken to the first archaeological horizon and expose a clean archaeological surface. The Archaeological Contractor(s) shall ensure that hired-in plant and operators have the capability to achieve a consistently high standard of work. All operatives will receive an induction outlining the nature of any archaeological remains likely to be encountered and the expectations of the Archaeological Contractor(s), Main Works Contractor(s), the wider Project Team, and National Grid. The DWSIs for each site will include proposals for the stockpiling, handling and replacement of topsoil with reference to the Outline Soil Resource Plan, Appendix C of the Outline CoCP (document reference 7.2) (Revision D).
- 5.3.59 Machine excavation will proceed under the direct supervision of the Archaeological Contractor(s) in level spits, until either the top of the first archaeological horizon or undisturbed natural deposits are encountered (the methodology will be set out in each DWSI). Particular attention will be paid to achieving a clean and well-defined horizon with the machine. Under no circumstances will the machine be used to cut arbitrary trenches down to natural deposits. Should sondages be required these would be agreed with National Grid, the ACoW, and the Local Planning Authority Archaeological Advisors. The mechanical excavator will not be permitted to traverse any stripped areas.

- 5.3.60 Where the surface exposed through machine stripping does not provide clarity of the exposed archaeological remains, hand cleaning will be required to define the extent and nature of archaeological features. Where sites are left open and previously clean horizons have become silted or unclear, re-cleaning of these areas by hand will be required to re-define the extent and nature of archaeology. Provision for hand cleaning will be identified in the DWSI.
- 5.3.61 The extent of the area of detailed archaeological excavation will be clearly demarcated to ensure that persons or vehicles cannot inadvertently traverse the area of investigation whilst archaeological works are in progress; the method of demarcation will be set out in the DWSI for the archaeological work. Dump trucks and other plant will not be permitted to track over stripped areas until archaeological investigations at that location are complete and the archaeological site is signed-off for construction. All fencing/bunds associated with the archaeological works area will be regularly inspected by the ACoW and maintained by the Main Works Contractor(s) until the archaeological works in that area have been completed, inspected and approved.
- 5.3.62 Topsoil within detailed excavation areas will be subject to a rapid metal detector scan prior to stripping, to identify and recover metal objects within the topsoil. The finds co-ordinator/processing specialist and the conservation specialist will be consulted. Stripped surfaces and archaeological features will also be subject to a rapid metal detector scan to identify loose artefacts from uncleaned surfaces, and on cleaned surfaces to help identify areas for careful excavation. Hand-excavated spoil will also be scanned. This will be undertaken by an appropriately qualified or experienced metal detectorist. The DWSIs will set out how metal detecting will be used as part of the artefact recovery strategy for individual sites. Provision will also be made for 3D location recording of artefacts within features, but also within unstratified deposits where significant quantities are identified. The Archaeological Contractor(s) will consider the use of metal detecting at the end of each day in order to assist in site security.

Hand Excavated Trenches and Hand Excavated Test Pits

- 5.3.63 Where ploughzone artefact sampling or trial trenching suggests sensitive or fragile remains may survive, trenches and test pits shall be opened with hand tools rather than mechanical plant. Circumstances requiring this approach include:
- In situ lithic assemblages at risk of fabric damage or spatial distortion
 - Investigations on a very small scale where fine control is essential
 - Exposed buried colluvial or alluvial deposits with potential to contain or seal archaeological remains.
- 5.3.64 Hand excavation in these scenarios ensures maximum protection and accurate recording of delicate archaeological contexts. Hand excavations of test-pits or slots will inform a design for removal of deposits, created in consultation with the relevant LPAAA and Historic England where required.
- 5.3.65 Where deposits with archaeological potential, such as colluvium, alluvium, buried soils and occupation layers etc. are encountered during the mitigation works, these will need to be assessed by hand-excavation of test pits, or where appropriate, slots, to inform an appropriate strategy for their full excavation and recording, which will need to be agreed with the relevant LPAAA and if required Historic England. This process will be defined within the DWSIs.

Artefact Recovery Strategy

- 5.3.66 Finds will be recovered and will be bagged and labelled according to the context from which they were recovered. Where finds of specific value (small finds) are identified, e.g. metal artefacts, grave goods, structured deposition etc. their position will be recorded three-dimensionally prior to removal from the context.
- 5.3.67 The Archaeological Contractor(s) will consult the specialists during the preparation of the DWSIs, regarding the artefact recovery strategy. In the first instance, however, all finds will be collected unless of demonstrably 20th century or later date, but with the caveat that finds relating to military sites, WW1, WW2 and the Cold War are retained. If changes are required during the course of the investigation at a site, then these will be developed as an iterative process at site consultation meeting(s) between the Archaeological Contractor(s), National Grid, and the relevant Local Planning Authority Archaeological Advisors and where appropriate Historic England.

Excavation Sampling Strategy

- 5.3.68 Archaeological features, layers or deposits identified for excavation will be hand excavated in an archaeologically controlled and stratigraphic manner, to meet the aims and objectives of the investigation as set out in the DWSIs. Where excavation of deep features or deposits is required, a methodology to achieve this will be agreed by the relevant LPAAA in consultation with National Grid, Historic England and other relevant stakeholders. This may take the form of machine assisted excavation following suitable hand investigation. All deposits/features will be investigated through hand excavation in each archaeological excavation area to record the horizontal and vertical complexity of the stratigraphic sequence to the level of underlying sterile geological strata. Excavation will also target the inter-relationships between features and major feature intersections to understand and record their relationships.
- 5.3.69 The excavation sampling strategy of individual features/deposits will be dictated by the significance of the remains, their stratigraphic complexity and their artefactual and palaeoenvironmental content (including absence of artefactual content). The Archaeological Contractor(s), in consultation with National Grid, the relevant Local Planning Authority Archaeological Advisors and, if appropriate, Historic England will describe in their DWSIs an appropriate sampling strategy informed by the results of the archaeological evaluation and key research questions, prior to works commencing in the area to which the DWSI applies.
- 5.3.70 The excavation sampling strategy will remain under continuous review throughout all field investigations. The strategy outline in the approved DWSIs will be implemented unless otherwise agreed in writing by the relevant LPAAA. Site data, artefacts, and environmental samples will be processed as the investigation progresses. This should include provision for spot-dating of finds and preliminary assessment of environmental samples. Provision should be made within the DWSIs to employ a reflexive approach to recover additional finds and samples for radiocarbon dating and palaeoenvironmental or geoarchaeological analysis as needed. Any deviation from the approved DWSI strategy will be developed through regular site consultation meetings involving project stakeholders and the relevant LPAAA and Historic England were required, and will require approval in writing by the relevant LPAAA.

- 5.3.71 The following minimum sampling requirements will be used as a standard, within the iterative excavation sampling strategy; these may be varied to suit the research value of the remains, subject to agreement with the relevant Local Planning Authority Archaeological Advisors and, if appropriate, Historic England at a site consultation meeting with National Grid and relevant Stakeholders. The DWSI will identify the minimum sample for excavation.

Linear Features

- 5.3.72 The DWSIs will detail the minimum requirement for investigating linear features, sufficient numbers of sections though linear features will be targeted to fully characterise the archaeological feature. It may be necessary to increase percentage excavation to address research questions where a higher volume sample would achieve this. Segments will be hand excavated along the length of the feature to understand its depositional sequence and character. Each segment will be not less than 1 m long and will be regularly spaced along its length. Segments will be located away from intersections with other features, although intersections will also be targeted to provide an understanding of the deposit sequence and the relationship between different feature types/classes. All ditch termini will be investigated. A minimum of 10% of each linear feature will be excavated (increasing up to 50% for enclosure ditches unless otherwise agreed with the relevant LPAAA) and provision for 100% excavation for ditches with burial or structural context.

Discrete Features

- 5.3.73 Pits, post-holes and other discrete features (including presumed natural features) will be half-sectioned (50% excavated) as a minimum. There will be provision to fully excavate (100% excavate) where significant archaeological remains have been identified or to address research questions. Structural post-holes will be 100% excavated and sampled to recover evidence to aid in the dating and use of structures.

Buried Soils (Ground Surfaces)

- 5.3.74 Buried soils have the potential to contain important archaeological remains, including finds distributions, ecofacts and palaeoenvironmental evidence. Where buried soils are identified, a suitably qualified geoarchaeologist and environmental specialist will design an excavation and sampling methodology in consultation and agreement with the relevant LPAAA and Historic England where appropriate.

Floor Surfaces and Working Surfaces

- 5.3.75 Floor surfaces and working surfaces relate to structural remains and have the potential to contain important archaeological remains, including finds distributions, ecofacts and palaeoenvironmental evidence which will inform on the date and use of the structure. Where floor surfaces and working surfaces are encountered, these will be excavated in grids and should be fully excavated (100% excavated) by hand. There is potential for stratigraphic sequences of multiple floor surfaces and working surfaces, the excavation methodology must account for this.

Hearths, Ovens, Kiln Structures

- 5.3.76 Heat effected features, such as Hearths, Ovens, Kilns etc. will need a careful and specific excavation methodology. Once features have been identified on site, the potential need for archaeomagnetic dating should be assessed prior to the feature being excavated, to allow time to gather control samples before the excavation process. Features will be hand excavated to fully characterise and achieve 100% recovery of remains. Appropriate samples must be taken, to address research questions and identify the nature of the feature. There will be provision to consult the Historic England Regional Science Advisor for advice on specific sampling strategies and dating techniques.

Animal Bone Groups

- 5.3.77 Where animal bone groups are identified during excavation, the Archaeological Contractor(s) will follow Historic England guidance Animal Bones and Archaeology: Recovery to archive (Baker and Worley, 2019). Sufficient sampling to extrapolate total quantities and understand the nature of the deposit(s). Where animal bone groups are identified the excavation and sampling strategy should be designed in by a qualified animal bone specialist and environmental specialist in consultation with the relevant LPAAA and where required Historic England.

Structured Deposits

- 5.3.78 Where features are identified to contain structured deposition of archaeological remains and artefacts (including Human and/or animal bone). A methodology for excavation of the feature should be developed which fully records the location and stratigraphic sequences of the structured deposition, this will require three-dimensional recording and can be assisted by photogrammetry and will require 100% sampling of each stratigraphic layer. The excavation and sampling methodology will need to be agreed by the relevant LPAAA and where relevant Historic England.

Structures

- 5.3.79 Each structure, including stone structures and foundations, will be investigated/sampled to define the extent, form, stratigraphic complexity and depth of the component features and its associated deposits. Intersections between components will be investigated to determine their relationship(s). Particular care will be taken to ensure that areas of in situ burning are not investigated prior to the consideration of scientific dating.
- 5.3.80 Where structures are found or suspected after topsoil stripping, machine excavation will stop and careful hand cleaning will be undertaken at the level of initial definition to establish the full extent of the structure and any associated or related contemporary features, to understand its complexity, state of preservation, significance and to contribute to answering research questions set out in the DWSIs. It may be necessary to re-clean areas to achieve an acceptable level of feature definition. Features/contexts that are part of the structure or which may have contributed to its construction (such as drip gullies, post holes, internal or external surfaces, hearths, etc.) will be 100% excavated. Hearths will be examined prior to excavation by an archaeomagnetic dating specialist to assess their potential for dating. Contexts will be routinely sampled for ecofacts, palaeoenvironmental remains and dating material.

- 5.3.81 Some features may require a specific sample strategy to be developed which will be included in the DWSIs. The hand excavation of wells, or similar deep structures, will only proceed following design of a suitable safe working practice methodology, as required by national health and safety guidance, and as recorded in the DWSI to be prepared by the Archaeological Contractor(s) and approved by National Grid, the ACoW and the relevant Main Works Contractor(s). Preliminary hand augering of potential deep deposits may be able to identify depth and would inform an excavation strategy which may include machine excavation or stepping-out to ensure that there is no depth restriction in areas subject to archaeological mitigation. The excavation sampling strategy will be developed at site consultation meeting(s) between the Archaeological Contractor(s), National Grid, and the relevant Local Planning Authority Archaeological Advisors and where appropriate Historic England.

Burials

- 5.3.82 Burials (including features suspected of being burials) will be investigated in accordance with a strategy detailed in the DWSIs for the excavation of burials and the recovery of human remains. A methodology for the recovery of human remains is expanded upon in the Strategy for the Recovery of Human Remains section below.

Tree Hollows

- 5.3.83 Tree hollows, where encountered, may relate to historic ploughing, topography and drainage, or possibly to specific prehistoric land use. The distribution of tree hollows has potential to contribute to studies of landscape evolution and change across the landscape. The comprehensive mapping and investigation of a representative sample of tree hollows for artefactual, ecofactual and palaeoenvironmental evidence is therefore proposed, comprising:
- Mapping of all possible tree hollows encountered in mitigation areas (i.e. interpretation)
 - Archaeological excavation of a sample of confirmed tree hollows to assess the archaeological significance of these features within the excavation area, and inform a full mitigation strategy in consultation with the relevant LPAAA and Historic England where appropriate
 - Recovery of a sample of the fill of excavated tree hollows to be sieved for small artefact recovery. A proportion of samples will be wet-sieved to identify whether significant ecofacts e.g. grains, hazelnut shells are present to inform a full sampling strategy.

Recording

- 5.3.84 Once open, the extent of the excavation area(s) will be accurately recorded using metric survey grade equipment (or its equivalent) and fixed in relation to any existing survey markers. The data will be overlaid onto the Ordnance Survey national grid (using digital map data).
- 5.3.85 Following cleaning, the archaeological remains will be mapped (electronic survey grade equipment) and planned to enable the selection of areas and features for investigation and to compare the position of the identified archaeological remains with any available previous geophysical, aerial photographic, trial trench data, as applicable.

- 5.3.86 A full written, drawn and photographic record will be made of the archaeological remains, in accordance with the Archaeological Contractor(s)'s recording system, standard archaeological methodologies and national and local guidance. Details of the recording system to be used must be included in the DWSIs.
- 5.3.87 The Archaeological Contractor(s) will be expected to use digital recording methods to ensure the smoothest transfer of information between the on-site work and the Local Planning Authority Archaeological Advisors. Digital records will be backed up daily to ensure that no data is lost due to technical issues. Where digital recording is undeliverable, manual recording by paper record and hand-drawn sections and plans will be substituted. All written records and hand drawn plans will be tied to the Ordnance Survey Datum.
- 5.3.88 Hand-drawn or digital plans and sections of features will be produced. The minimum acceptable scale will be 1:50 or 1:20 for plans and 1:10 for sections. Human burials and other special deposits, such as animal bone groups will normally be drawn at a scale of 1:10. All plans and sections will be accurately located against the site grid using electronic survey equipment and will include spot heights relative to Ordnance Datum in metres and will be expressed to a minimum of two decimal places. The Archaeological Contractor(s) will include in their DWSI a statement that describes their recording system and the accuracy of their site mapping.
- 5.3.89 Site photography will be used to record all archaeological remains that are under investigation. In addition, photographs will be taken to assist in interpretation and publication, and to give an overview of the site, the progress of the investigations and site activities. Overhead (drone) photography will also be used to record progress, relationships between structures and to put the investigations within a wider landscape context. Particular attention will be paid to obtaining photographs suitable for displays, exhibitions and other publicity material, dependent on Health and Safety considerations. The photographic record will consist of high-resolution digital images. All cameras used for archive photography must have sensors of APS-C (or larger) and all images must be at least 10 megapixels in size. All digital images for archiving purposes must be high quality non-altered RAW files (.DNG) or TIFF images. JPG images must not be used for archiving.

Environmental Sampling Strategy

- 5.3.90 An Environmental Archaeology Coordinator will be appointed to develop, manage and oversee all aspects of the environmental sampling strategy. Their core responsibilities will include:
- Consulting with qualified environmental specialists, and, via the ACoW, the Local Planning Authority Archaeological Advisors (LPAAA) and Historic England (as required) to define sampling methodologies and research aims
 - Supervising the implementation of the strategy during fieldwork to ensure methodological consistency and data quality
 - Liaising with the archaeological contractor's specialist team, of which they may be a member, to coordinate resources and maintain smooth progress.
- 5.3.91 The nominated Coordinator must hold formal qualifications and demonstrable experience in environmental archaeology. They will also attend site visits and stakeholder meetings with National Grid and the LPAAA, where required, to integrate sampling activities into the wider palaeoenvironmental framework and address any emerging issues.

- 5.3.92 The Environmental Archaeology Coordinator will oversee all routine sample collection and manage the subsequent processing of environmental samples throughout the investigations.
- 5.3.93 Each Detailed Written Scheme of Investigation (DWSI) will include an environmental sampling strategy informed by previous assessment results. The Environmental Archaeology Coordinator will develop this strategy in consultation with specialists such as (but not limited to) zooarchaeologist for animal bones, archaeobotanist for charred plant remains, archaeomalacologist for molluscs, as well as National Grid, the relevant Historic England Regional Science Advisor and Local Planning Authority Archaeological Advisors to establish site specific requirements. The strategy will remain adaptable throughout excavation; as new evidence and deposits emerge, sampling methods, priorities, and coverage will be reviewed and refined to ensure all key research questions are addressed.
- 5.3.94 Environmental sampling will adhere to current national and local guidance, including (but not limited to):
- Historic England (2025) Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation (3rd edition)
 - Historic England, Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record (2015)
 - ClfA Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (2020)
 - Relevant Historic England Good Practice Advice and ClfA standards for field evaluation, excavation, and post-excavation reporting.
- 5.3.95 Where necessary, specialist guidance (for example) for archaeobotany, zooarchaeology, osteoarchaeology, geoarchaeology or waterlogged deposits, will be integrated to ensure all phases of sampling, recovery and analysis meet professional quality and consistency.
- 5.3.96 The processing of samples and their assessment will feed back into the sampling strategy that is employed in the field. Except for specialist samples, the processing and initial assessment of environmental samples would be undertaken during the archaeological fieldwork to facilitate the rapid feedback to the field team. Processing will be supervised by the Archaeological Contractor(s) Environmental Archaeology Coordinator and relevant specialists as required.
- 5.3.97 Samples for flotation and for coarse sieving will be taken. Following consultation and agreement with the relevant LPAAA, coarse sieving may be employed to recover small or fragmented bones, larger Mollusca, substantial charcoal fragments, robust plant macrofossils (e.g. hazelnut shell fragments, fruit stones, and pips), and some wood. However, coarse sieving is not appropriate as the sole method of sample processing and will not reliably retrieve the full range of palaeoenvironmental and bioarchaeological material present within archaeological deposits.
- 5.3.98 Flotation sampling enables the recovery of charred and mineralised plant macrofossils, charcoal fragments, and small bones from well-drained deposits. Larger, denser remains are retained in the wet-sieved residues generated by the flotation process. Sample volumes should be a minimum of 40L (as per Historic England Guidance) or more may be taken due to feature/deposit significance and

where context size allows, whereas smaller contexts should be completely sampled. Sample size and strategy should be agreed with specialists during project planning, based on expected preservation, frequency, and fragment size. Where facilities permit (water supply, drainage, silt disposal, drying space), flotation processing can be carried out at the site compound. All residues must then be carefully examined for any remains not captured by the sieves.

- 5.3.99 All environmental samples will be processed and assessed unless otherwise agreed with the relevant LPAAA and Historic England (where required) via the ACoW. Initial samples will be processed and assessed to inform the sampling strategy within an agreed timescale, agreed between National Grid, Archaeological Contractor(s), the relevant LPAAA and Historic England (where required). Realistic timescales for initial sample processing will be detailed within the DWSIs.
- 5.3.100 The aims of the environmental strategy will be to examine the environmental evidence produced by the archaeological works. Details of the types of samples that will be recovered are to be included in the appropriate DWSIs and will include the size of the samples required to produce statistically reliable assessments. Site based studies that could aid the investigations will include the following (this list is not exhaustive, and other studies may be relevant):
- Pedological (including micromorphology) study of soils (or other suitable deposits) deeply buried beneath or within colluvium would provide information relating to the status of the soil at the time of burial and should be able to detect and characterise aspects of previous land use and will provide information on erosion and on the contribution of colluvium and wind-borne material to the soil
 - Pollen and diatom/phytolith analysis
 - Detailed wet sieving/flotation of buried ground surfaces and other selected contexts and features for the recovery of charcoal/wood, plant macrofossils, small animal bones, molluscs, coleoptera, small artefacts, etc. The retrieval of a reliable sample will be achieved by the routine sampling of a set proportion of each selected context/deposit excavated. Sampling will also be systematic and extensive.
- 5.3.101 All samples taken will come from suitably cleaned surfaces and will be collected with clean tools and placed in clean containers, in consultation with relevant specialists. They will be recorded and labelled in accordance with national guidance such as Historic England 2025 and ClfA 2014a, and a register of all samples will be kept. Once the samples have been obtained, the Environmental Archaeology Coordinator and the Finds Coordinator will ensure that they are placed in safe storage under suitable conditions to prevent deterioration prior to them being sent to the appropriate specialist.
- 5.3.102 If organic rich archaeological remains are encountered during the investigations, the Environmental Archaeology Coordinator will be contacted for advice and to devise an appropriate strategy for excavation and sampling. In addition, the Archaeological Contractor(s) will inform the ACoW immediately, who will then notify the Main Works Contractor(s) and National Grid. All proposed strategies must be developed in consultation with, and agreed by, the Local Planning Authority Archaeological Advisor (LPAAA).
- 5.3.103 At the post-excavation assessment (PXA) reporting stage, the Environmental Assessment will contribute to the understanding of the archaeology and site formation processes, and inform the development of strategy for further investigation,

detailed within the Updated Project Design (UPD). For example, zooarchaeological assessment at the PXA reporting stage will include the potential of biomolecular methodologies where there is a clear research question which could be addressed through biomolecular analysis, determined through the assessment of animal bones, and detailed within the UPD. Samples for radiocarbon dating will be identified from material sampled for environmental analyses during the post-excavation assessment stage, and detailed for full analysis in the UPD.

Strategy for Scientific Dating

- 5.3.104 An initial scientific dating strategy will be developed by the scientific dating specialist, and this will be detailed in the DWSI. Where scientific dating is required during fieldwork stage to inform the scientific dating strategy or provide spot dates to inform the excavation strategy, the initial scientific dating strategy may need to be amended to reflect this. During fieldwork samples will be recovered to undertake specific scientific dating techniques. The Updated Project Design will set out the programme of a comprehensive scientific dating programme, based upon the results of the archaeological fieldwork and post-excavation assessment (PXA). At the Post-excavation Assessment (PXA) reporting stage, each Scientific Dating Specialist will develop a detailed strategy for scientific dating in consultation with relevant specialists, the relevant LPAAA, Historic England and National Grid. The UPD will be submitted for approval with the relevant LPA in consultation with the relevant LPAAA and, where required, Historic England.
- 5.3.105 Appropriate scientific dating will be applied to deposits recovered as samples taken during geoarchaeological works to inform on the significance of those deposits e.g. C-14 dating for organic deposits. Samples for radiocarbon dating will be identified from materials sampled for environmental analysis: see Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (Historic England, 2025); Geoarchaeology. Using earth sciences to understand the archaeological record (Historic England, 2015b); and Animal Bones and Archaeology – Recovery to archive (Baker and Worley, 2019) or from recovered artefacts. The requirements for the recovery, processing, and retention of these materials may be affected by the proposed dating programme (e.g. packaging typologically diagnostic refitting groups of ceramic sherds so that their potential for absorbed lipid analysis and dating is not compromised).
- 5.3.106 Scientific dating will also be utilised to provide spot dates to inform the excavation strategy, contribute to understanding of stratigraphic sequences, or to provide precision/resolution for statistical modelling. The Scientific Dating Specialist will provide advice and guidance throughout the life-cycle of the Project (preparation of the DWSIs, site investigations, and at the post-excavation assessment and analysis stages and production of the Updated Project Design). The Historic England Regional Science Advisor, the relevant Local Planning Authority Archaeological Advisors and National Grid will be consulted during preparation of the DWSI, throughout the fieldwork, post-excavation stages, production and delivery of the UPD.
- 5.3.107 Scientific dating techniques will include (but not limited to) the following:
- Radiocarbon (C-14) dating which can be used to date any carbon-based organic materials, such as wood, bone, or plant remains. If remnant peat is found, reliable and high-resolution dating will be essential, and multiple methods will be employed unless otherwise justified
 - Luminescence dating for suitable features

- Archaeomagnetic dating for highly fired structures such as kilns or ovens and in situ burning
- A range of other absolute techniques, such as amino acid racemization, or tephrochronology (dating volcanic ash from deposits)
- If preserved wood is present, for example, in waterlogged deposits then dendrochronology may be able to provide precise and accurate dates (suitable on-site provision to retain the wood in stable condition will be required).

5.3.108 Scientific dating will be undertaken on the recovered samples in accordance with a sampling strategy designed, in consultation with a scientific dating specialist and chronological modelling specialist, to address the research questions set out in the Research Framework and the DWSI, and any research questions identified during the excavation and post-excavation analysis process. This strategy should follow guidance set out in Historic England (2022) Radiocarbon Dating and Chronological Modelling and should be set out within an Updated Project Design. Multiple laboratories/techniques will be employed to ensure that robust chronologies are produced. Different strands of evidence will be combined using formal statistical modelling to produce quantitative estimates for chronologies that address the Project objectives. Reporting will follow Historic England guidelines such as Historic England 2015c. The strategy will be devised in consultation with the Historic England Regional Science Advisor, the relevant Local Planning Authority Archaeological Advisors and National Grid and will be approved by National Grid.

Strategy for the Recovery of Human Remains

5.3.109 The DWSIs will describe a detailed strategy for the investigation, treatment, recovery and assessment/analysis of human remains (neonate/young infants, inhumations, cremations, disarticulated/charnel remains) which will be developed by the human remains specialist. The DWSIs will also include provision for the identification, excavation, recording and sampling of body stains/shadows, coffin remains and coffin stains/shadows where they exist. Any investigation of human remains must comply with all legal requirements. The investigation of human remains will be undertaken in accordance with national and local guidelines (Historic England, 2018; Advisory Panel on the Archaeology of Burials in England, 2017; Historic England, 2023; McKinley and Roberts, 1993; and McKinley and Brickley, 2004; SCCAS 2026c), under the guidance of the human remains specialist. An appropriate methodology for the recovery of cremated human remains will be developed and detailed in the DWSI. At the post-excavation assessment (PXA) stage the Archaeological Contractor(s) will consider the application of modern scientific studies, such as DNA work and isotope analysis. It is expected where other dating cannot be obtained for this material that C-14 will be applied. A programme of full assessment of human remains will be detailed in the Updated Project Design (UPD), which will be approved by the relevant LPAAA and where required Historic England.

5.3.110 In the event of the discovery of human remains the Archaeological Contractor(s) will notify National Grid and the ACoW immediately. The ACoW will immediately notify the relevant Local Planning Authority Archaeological Advisors. Remains will be covered and protected and left in situ in the first instance, in accordance with current guidance. A strategy for recovery of remains will be developed, with reference to the DWSI, and in consultation with the LPAAA and Historic England where appropriate, and a licence from the Ministry of Justice will be applied for.

- 5.3.111 The excavation of human remains should be in their entirety, therefore where human remains are partially exposed, extensions to the excavation area will be required. Extensions for the purpose of mitigating human remains will follow national and local guidance, and a 20 m archaeologically sterile area from the last human burial will be required to identify the presence/absence of further human remains, define the extent of burials, and mitigate the impacts of the development. Extensions would not exceed the project Order Limits.
- 5.3.112 The human remains specialist will be available to visit a site where human remains have been found to provide specialist advice and to ensure that the work is being carried out in accordance with procedures set out in the DWSIs.
- 5.3.113 Where inhumation burials are encountered, it is good practice to take samples from the entire lens of soil remaining at the bottom of the grave and divide it into three sections, head, torso and feet.
- 5.3.114 Where artefacts are identified within the burial context, additional specialist advice will be sought with regards to the potential for mineral-preserved organics, including mineral-preserved textiles and other organic materials preserved on or in proximity to metal artefacts. Appropriate block lifting and sampling, conservation and laboratory excavation will be undertaken where required. This will be carried out in accordance with relevant guidance, including the SCCAS Excavating Inhumations for Mineral Preserved Organics Guidance (reviewed April 2026), and in consultation with the human remains specialist, archaeological conservator and relevant finds/MPO specialists.
- 5.3.115 Cremation deposits, or deposits suspected to contain cremated human material, will be subject to 100% excavation and sampling to enable assessment of charcoal, charred plant remains as well as recovery of artefacts and human bone at the post-excavation assessment (PXA) phase.
- 5.3.116 Where large deposits of pyre debris are identified the human remains specialist will be contacted to devise an appropriate strategy for excavation and sampling. The strategy will be developed in consultation with the Archaeological Contractor(s), National Grid, the relevant Historic England Regional Science Advisor and the relevant LPAAA.
- 5.3.117 Where un-urned cremation deposits are encountered or anticipated, each cremation or suspected cremation burial will first be half-sectioned in 5 cm spits to document the depositional sequence and spatial distribution of cremated remains. Once this half-section is recorded, the feature will be excavated in full to its natural base continuing in 5cm spits until the entire feature has been excavated. Each of the 5cm samples will be retained as separate samples to inform on depositional sequences and concentration of bone.
- 5.3.118 Larger fragments of charcoal (>2 cm diameter) will be individually sampled (hand recovered) as specialist samples and the location of these samples recorded on the resulting plan and section drawing; the location of specialist samples will be surveyed in.
- 5.3.119 Urned cremations will be block lifted to allow for X-radiography and excavation under laboratory conditions. The conservator or field staff experienced in lifting cremation urns will be present when lifting takes place. In the first instance, the conservator will be contacted for advice.

- 5.3.120 In addition to standard osteological recording, post-excavation assessment will evaluate advanced analytical techniques, including but not limited to, microscopic, biomolecular, imaging, and other emerging methods. To determine their potential to develop the project's research questions and develop a programme of full analysis and reporting in the Updated Project Design (UPD). The Archaeological Contractor(s) will consult National Grid, the Historic England Regional Science Advisor, and the relevant Local Planning Authority Archaeological Advisor.

Treasure

- 5.3.121 Any artefacts which are recovered that fall within the scope of the Treasure Act 1996 and The Treasure (Designation) (Amendment) Order 2023 will be reported to National Grid and the ACoW. The ACoW will contact His Majesty's Coroner for the relevant area and will ensure that the Treasure regulations are enforced and that all the relevant parties are kept informed. The relevant Finds Liaison Officer for the Portable Antiquities Scheme, relevant Local Planning Authority Archaeological Advisors and Historic England will also be notified immediately. A list of finds that have been collected that fall under the Treasure Act and related legislation will be included in the fieldwork report.

Strip, Map and Sample Excavation

- 5.3.122 Strip, Map and Sample Excavation (SMS) is defined in Table 2.1. The following general approach will apply for SMS. Sites that require investigation by SMS are identified in DWSIs.
- 5.3.123 Sites designated for SMS in the DWSI will be stripped by a suitably sized back-acting tracked excavator fitted with a toothless ditching bucket and operated by an experienced operator under the continuous supervision and direction of an experienced archaeologist; machine excavation will proceed to the first archaeological horizon with overburden continuously examined for artefacts and ecofacts, and metal-detector surveys carried out before, during and immediately after stripping and prior to any hand excavation of the horizon; topsoil, subsoil and other non-archaeological overburden will be kept separate, the depth of the archaeological horizon will be confirmed on site (informed by evaluation results where available), and the sequencing of stripping, location of soil storage areas, backfilling and other logistics, will be set out in a DWSI.
- 5.3.124 Following stripping, the exposed archaeological remains will be surveyed using electronic survey-grade equipment to create a detailed digital pre-excavation plan, to inform an excavation strategy which will be agreed with the relevant LPAAA and where required Historic England, in discussion with National Grid. The agreed strategy will be implemented for hand excavation of features/deposits to recover artefactual, stratigraphic, environmental and scientific dating evidence. The DWSI will set out provision for where complex features, complexes of features and/or significant archaeology is identified, excavation will follow the detailed excavation methodology.
- 5.3.125 The proportion of features excavated will be determined by the significance of the remains, the research framework, and the site-specific research objectives developed in the DWSIs and in consultation with relevant specialists and approved by the relevant LPAAA and where appropriate Historic England. Sufficient hand excavation must be undertaken to understand and characterise any features and deposits identified.

Geoarchaeological and Palaeoenvironmental Investigation

- 5.3.126 All work must be undertaken in line with guidance on Geoarchaeology (Historic England, 2015b) and Environmental Archaeology (Historic England 2025 3rd edition). Provision will be included within the DWSIs for consultation with the Historic England Regional Science Advisors.
- 5.3.127 Areas requiring geoarchaeological or palaeoenvironmental assessment will be subject to investigation using boreholes and cores, laid out in grids or transects as appropriate to ensure comprehensive coverage. Sleeved cores should be recovered using a percussion coring rig, to facilitate full analysis of the deposits. Details and full methodology will be defined within the DWSI.
- 5.3.128 Each borehole column will be recovered using a windowless sampling rig (for example a Terrier Drilling Rig or for shallower deposits a power auger) that will be provided by the Main Works Contractor(s) or the Archaeological Contractor(s) and used under the supervision of the Archaeological Contractor(s)' geoarchaeologist. The diameter of the borehole shall be approximately 100 mm and the core shall be recovered in plastic tubes (or an appropriate substitute). The number of cores to be recovered from each location will be specified in the DWSI.
- 5.3.129 The location of the borehole will be set out by the Archaeological Contractor(s)'s surveyors and shall be surveyed and levelled in three dimensions to Ordnance Survey Grid and Ordnance Datum
- 5.3.130 A suitably experienced geoarchaeologist shall be present during any geoarchaeological investigation and where Palaeolithic archaeology is suspected a Palaeolithic specialist would be required. This is to ensure that a proper record and interpretation is made of the observed deposits and to ensure that any samples are collected and labelled appropriately.
- 5.3.131 The Archaeological Contractor(s) should make allowance for the excavation of a starter pit prior to drilling to confirm that no buried services, land drains or other subsurface obstructions are present.
- 5.3.132 Made ground deposits need not be described in detail unless it is relevant to the understanding of site formation processes. Each deposit and deposit boundaries with the core will be exposed, cleaned and the sequence of sediments from the borehole shall be described and logged on site (compaction, colour, particle size, deposit structure, inclusions, thickness, depth and elevations). If practicable, a record shall be made of the depth of any water table at the borehole location. A preliminary interpretation of formation processes, depositional environment and the gross stratigraphy will be made. The scope and methodology for this work will be detailed in the Archaeological Contractor(s)'s DWSI and agreed with the relevant LPAAA and Historic England where relevant.
- 5.3.133 Upon completion of the borehole and the recovery of the core, the void left by the sampling rig shall be backfilled by the operator with a suitable material.
- 5.3.134 The core sample shall be sealed, labelled (with site code, borehole number, core depth and top and bottom of core), transported as soon as practicable, and stored securely and in appropriate controlled conditions (refrigerated) either on site (temporary) or off-site at the assessment stage. It may be necessary to store the core long-term if it is likely to contribute to any future analyses. Facilities to achieve appropriate storage will be detailed in the DWSIs.

- 5.3.135 If suitable organic remains are recovered from the core, samples may be taken for radiocarbon dating if appropriate, to provide a dating framework for the stratigraphic sequence (following Strategy for Scientific Dating paragraphs 5.3.104-108). The Archaeological Contractor(s), following consultation with the Historic England Regional Science advisor, shall make provision for submitting a justified proposal and number of samples for radiocarbon dating.
- 5.3.136 If suitable deposits exist, samples will be submitted for specialist assessment to define geoarchaeological and palaeoenvironmental objectives and mitigation aims, for example dating, landscape reconstruction, depositional sequencing, human impact and palaeoclimate indicators and, to determine the required analyses, minimum sample densities, reporting format and curation arrangements. The Archaeological Contractor(s)'s Environmental Archaeology Coordinator, via the ACoW, will agree on suitable analyses with the Historic England Regional Science advisor. Analyses may include, but may not be limited to, pollen, macrofossil and charcoal identification, diatoms/ foraminifera, phytoliths, chironomids, aDNA, geochemical profiling (XRF, Loss On Ignition) and grain-size analysis and appropriate dating of all sequences.
- 5.3.137 Geoarchaeological investigation may also be undertaken using machine excavated test pits. These will most likely be used where deposits of interest are between approximately 0 m – 4 m depth, to account for the maximum reach of a machine bucket. Where archaeological trenching or open area excavation are undertaken in areas of geoarchaeological potential, test pits or sondages within trenches will be considered. Machine excavation would be undertaken in accordance with the general principles set out in section 'Machine Excavation' (paragraphs 5.3.58-59). Test pits will be a standard machine bucket width and will not be entered by staff, with observations made from the test pit/trench edge. If deposits need to be investigated laterally a stepped trial trench may be used to enable safe working and must follow appropriate health and safety procedures.
- 5.3.138 Test pits or trial trenches may also be used where archaeological remains are suspected to be sealed by colluvium, alluvium, peats or other sediments, to inform on depth and extent of buried archaeological remains. The results of this approach will guide the requirement for removal of overlying deposits by machine or hand, which may need to be undertaken in stages for the exposure of archaeological horizons and features over a wide area. Any excavated transects should be orientated perpendicular to the feature, such as a palaeochannel, they are investigating so that they capture in section sedimentary processes.
- 5.3.139 Upon completion of recording and following sign-off of a test pit or trial trench the excavation will be backfilled by mechanical excavator, in the reverse order they were excavated, i.e. subsoil first and then topsoil. The spoil will be compacted by the weight of the mechanical excavator provided and not by any other type of plant.
- 5.3.140 For all geoarchaeological investigation the requirement for work should be detailed in a DWSI, guided by the Archaeological Contractor(s)'s geoarchaeologist and agreed with the relevant LPAAA and Historic England where relevant.
- 5.3.141 An interim summary assessment report will be produced by a suitably qualified geoarchaeologist shortly after completion of the fieldwork, and include sufficient specialist analysis and scientific dating, to inform the design of any subsequent archaeological mitigation.

- 5.3.142 The final geoarchaeological and palaeoenvironmental assessment report will provide a detailed deposit model (see section 5.3.22-26), which will characterise the sediments present on the site and provide an assessment of the palaeoenvironmental record and included preliminary scientific dating. The report will include all aspects of the fieldwork associated with geoarchaeological and palaeoenvironmental investigation. This will inform the production of the Updated Project Design for full analysis and publication, which will include costings and timescales to complete this work.
- 5.3.143 The geoarchaeological assessment will be placed within the context of any previous investigations and assessment work undertaken in the vicinity of each site to aid the interpretation of the deposit sequence.

Monitoring During Pre-Commencement and Construction

Archaeological Monitoring and Recording

- 5.3.144 The following general approach will apply for Continuous Archaeological Monitoring and Recording during pre-commencement and main works stages on very small construction impacts where no other mitigation methodology is practicable. Such works might include the connection of compound areas to the local water, electric and digital cable services.
- 5.3.145 The location and function of pre-commencement and construction activities that require continuous archaeological monitoring and recording during construction activities and investigation will be identified in DWSIs as necessary. Archaeological monitoring will only occur on areas previously evaluated (geophysical survey and/or trial trenching) where the extent and significance of archaeology has been determined.
- 5.3.146 Sites designated for Archaeological Monitoring and Recording will be stripped with mechanical plant as set out in the DWSIs. The Main Works Contractor(s)' preferred method of working will be subject to archaeological supervision and control. Topsoil, subsoil or other overburden that does not contain datasets relevant to the research objectives will be stripped by a mechanical excavator fitted with a toothless bucket to the correct archaeological horizon, under the supervision of the Archaeological Contractor(s). The relevant horizon will be informed by the evaluation results, the Research Framework and the research aims and objectives identified in the DWSIs. The sequencing of stripping, together with other relevant logistical considerations will be set out in the DWSI.
- 5.3.147 Following stripping, if archaeological remains are identified they will be surveyed using electronic survey-grade equipment to create a detailed digital pre-excavation plan. In accordance with the aims and objectives that will be identified in each DWSI, a strategy based on this plan will be implemented for hand excavation of key features to recover artefactual and scientific dating evidence. At the same time selected feature complexes would be subject to further hand excavation designed to resolve stratigraphic relationships.
- 5.3.148 The Main Works Contractor(s) will allow sufficient time and access for the investigation of the archaeological remains identified during the monitoring process. Should significant archaeological remains be identified during monitoring, groundworks in that area will stop and a methodology will be agreed to appropriately mitigate the impacts of the development. This will be agreed with the relevant

LPAAA, in consultation with National Grid, the ACoW and where appropriate Historic England. This may include reversion of the methodology to Detailed Excavation of defined and targeted areas. Vehicles and other plant will not be permitted to track over areas that contain remains until archaeological investigations are complete, or until the ACoW has given permission.

- 5.3.149 National Grid and the ACoW in consultation with the relevant Local Planning Authority Archaeological Advisors and if appropriate, Historic England will determine access parameters for plant. However, once the parameters have been established, access for plant will be controlled pro-actively by the Archaeological Contractor(s). In the event of genuinely different circumstances further consultation (as part of normal or additional site meetings) would be anticipated.
- 5.3.150 There will be provision within the DWSIs methodology for continuous archaeological monitoring and recording methodology to allow for the modification of work specification should significant archaeological remains be identified during the monitoring process. In this event, a Contractor's Method Statement will be produced, in line with the DWSI and AMS-OWSI Detailed Excavation Methodology detailing the extent of archaeological works to be undertaken. This will be approved by the relevant LPAAA in consultation with National Grid, ACoW and where appropriate Historic England.
- 5.3.151 Written notice will be provided by the LPAAA to the ACoW, to give clearance for construction works to (re)commence in the defined area once archaeological mitigation has been completed. A mechanism for authorising continued construction, under archaeological supervision, beyond the defined mitigation area will be detailed within the DWSIs.

Unexpected Finds During Construction

- 5.3.152 In the event of an unexpected discovery, during construction, requiring further investigation (that is, a significant find that was not predicted as a result of the evaluation), the archaeological excavation methodologies outline in Intrusive Archaeological Fieldwork (above) will apply. A site consultation meeting will be held which will consider the specific nature of any unexpected archaeological remains and the potential impacts of any construction activity on the unexpected archaeological remains. The outcomes of this meeting will inform any further archaeological work and the extent of any stand-off that may be required. The area will be fenced off, cleaned archaeologically and recording works completed, in line with a revised DWSI prepared by National Grid and the ACoW in consultation with the relevant Local Planning Authority Archaeological Advisors and if appropriate, Historic England.
- 5.3.153 This document, as secured through Requirement 5 of the Draft DCO (document reference 3.1) (Revision G), requires that any unexpected finds must be retained in situ and reported to the relevant Local Planning Authority as soon as reasonably practicable. No construction can take place in the location of the unexpected finds until a suitable approach is agreed with the Local Planning Authority and executed, as appropriate. If waterlogged structures, remains, or deposits are encountered, the size of any stand-down area will also be considered to account for the risk of dewatering adjacent areas. If the relevant Local Planning Authority finds that further investigation is needed, no construction would take place within the area of the remains, until further investigation and recording is undertaken including details to be approved by the relevant Local Planning Authority.

6. Reporting and Publication

6.1 Introduction

- 6.1.1 All finds and samples will be processed, cleaned and marked within appropriate timescales, following removal from the excavation site. It is expected that a programme of finds processing will be undertaken simultaneously with the excavations to ensure appropriate curation of the archaeological evidence. Following completion of the fieldwork, each category of find or environmental/industrial material would be examined by a suitably qualified specialist so that the results can be included in the Post-Excavation Assessment Report produced at the end of the investigations and inform the production of the Updated Project Design.
- 6.1.2 A fully costed and funded conservation strategy will be developed. All finds will be assessed in order to recover information that will contribute to an understanding of their deterioration and hence preservation potential, as well as identifying potential for further investigation. Furthermore, all finds will be stabilised and packaged in accordance with the requirements of the receiving museum. As a guiding principle, only artefacts of a “displayable” quality would warrant full conservation, but metalwork and coinage from stratified contexts would be expected to be x-rayed if necessary, and conservation costs should also be included as a contingency.
- 6.1.3 Upon completion of fieldwork all finds will be cleaned, identified, marked (if appropriate) and properly packed and stored in accordance with the requirements of national guidelines. Metalwork will be x-rayed and assessed by a conservator. Any samples taken shall be processed appropriately. All artefacts must be assessed by a qualified and experienced specialist. Assessment should be generally based on MORPHE (Historic England 2015b) but should include:
- Preparation of a descriptive catalogue
 - Dating (where possible)
 - An assessment of the significance of the assemblage
 - An assessment of the potential for further analysis to contribute to the interpretation of the archaeology of the site
 - An assessment of the potential for further analysis to contribute to artefact studies
 - Recommendations for additional artefact illustration/photography
 - An assessment of the condition of the assemblage and recommendations for conservation, retention/discard and archiving.

6.2 Interim Statements

- 6.2.1 Interim statements would be prepared and submitted to National Grid and the relevant LPAAA within six weeks of completing fieldwork at each site. The purpose of each interim statement is to provide a basic account of the results of the investigations at each site to inform the progress meetings. The interim statement would include:

- A summary of the results
- A plan of each archaeological area or site showing features, interventions and sample locations
- Provisional dating of features
- A quantification of the primary archive including finds and samples
- Identification of any issues that have arisen to ensure that there is integration across the Project between sites and phases
- An initial programme of work and schedule for the completion of the Post-Excavation Assessment Report.

6.3 Post-Excavation Assessment Report

- 6.3.1 The Post-Excavation Assessment (PXAs) reports will be completed within one year of the completion of the archaeological mitigation for the relevant development phase, detailed within the relevant DWSI. The Updated Project Design (UPD) will be completed within one year of the approval of the final site-specific PXA. The UPD will provide details of timescales and costs for delivery of the archaeological project and detail full publication and archive deposition.
- 6.3.2 The results from several fieldwork interventions may be combined as one site for the purposes of the post-excavation assessment and analysis stages or the results for the entire Project assessed in a single Post Excavation Assessment Report but each site must be assessed on its own merits and recorded separately within that Post Excavation Assessment Report. The results from earlier investigations (evaluation surveys and excavations) would also be assessed/reviewed by the Archaeological Contractor(s) where they contribute to an understanding of the site and address the research framework and aims and objectives of the DWSI(s). The Post Excavation assessment report will set out the assessment and analysis of fieldwork results. Identify revised research questions and priorities derived from the Regional Research Frameworks. Inform the production of an Updated Project Design (UPD). The Updated Project Design (UPD) will consolidate findings from the PXAs across the project and define a programme of further analysis and specialist study, detail the required work, including further analysis, scientific dating and specialist reporting, provide a clear delivery timetable and costed programme for completion of the post-excavation work, including publication of results and archive deposition (including provision to add the vast amount of information to each of the relevant county Historic Environment Records) and secure archive deposition with the relevant LPAAA's archaeological archive repository and digital archiving with the Archaeological Data Service (ADS).
- 6.3.3 Following the completion of the post-excavation assessment, the original Project objectives would be reviewed to determine the scope of any analysis and publication that may be appropriate.
- 6.3.4 The preparation of the Project archive, post-excavation assessment and subsequent analysis and publication phases would be undertaken in accordance with all relevant national and local guidance, including but not limited to: Historic England guidelines Historic England, 2016a, MoRPHE 2015, and ClfA guidelines ClfA 2014b; 2020; 2023a-f, Schmidt (2013), and with reference to the approved OAMS-OWSI and approved DWSIs. Timescales for production of the Post-excavation Assessment Reports and Updated Project Design will be decided in consultation with the relevant Local Planning Authority Archaeological Advisors, National Grid, the ACoW, an the Archaeological Contractor(s).

- 6.3.5 The precise format of the report is dependent upon the findings of the investigations, but the Post-Excavation Assessment Report would contain the following in accordance with Principles of Management of Research Projects in the Historic Environment (Historic England 2015d):
- A non-technical summary
 - Site location
 - Brief archaeological, historical and Project background
 - Original research aims and objectives
 - Interim statement of the results of fieldwork – factual data statements (stratigraphic, artefactual, environmental, initial scientific dating results)
 - Statements of potential (stratigraphic, artefactual, environmental)
 - Statements regarding immediate and long-term storage and curation
 - Review of original aims and objectives
 - Statement of the significance of the results in their local, regional, national and international context
 - Research design that sets out how the research framework and research aims and objectives of the DWSI(s) can be addressed at the analysis stage
 - Post-excavation analysis method statements
 - Recommendations for analysis, reporting and publication (including a synopsis of the proposed contents)
 - General and detailed plans showing the location of the investigation areas accurately positioned on an Ordnance Survey base with grid co-ordinates and a plan of the identified archaeological remains (to a known scale)
 - Detailed plans and sections/profiles, deposit models, etc., to support the narrative
 - Detailed stratigraphic matrix for each area excavated and how the areas interlink
 - Photographs and illustrations, including 3D models
 - Bibliography
 - A cross-referenced index to the Project archive and summary of contexts
 - Appendices containing specialist reports.
- 6.3.6 The Post-Excavation Assessment Report would be submitted to National Grid for review and comment. National Grid would issue the revised draft report to relevant Local Planning Authority Archaeological Advisors and Historic England for comment and approval. In finalising the report, the Archaeological Contractor(s) would take account of these comments.
- 6.3.7 The scope of the analysis and publication report would be dependent upon the assessment and future discussions to be held with National Grid, relevant Local Planning Authority Archaeological Advisors and Historic England. The analysis stage would be undertaken in accordance with the Post-Excavation Assessment report and would lead to the compilation of a research archive and the production of integrated report texts and illustrations for publication.

- 6.3.8 In accordance with the principles of Management of Research Projects in the Historic Environment (Historic England, 2015), a staged programme of post-excavation assessment and reporting would be carried out, to commence on completion of archaeological mitigation fieldwork of each archaeological mitigation site. This would inform the production of an Updated Project Design (UPD). The UPD would be developed in consultation with key stakeholders and agreed by the relevant Local Planning Authority Archaeological Advisors.
- 6.3.9 Given the Project's scale and, therefore, potential long-term duration, the Archaeological Contractor(s) should commission an up-to-date Historic Environment Record (HER) data search at the Post-Excavation Assessment stage. This enables any records added in the interim to be incorporated into the assessment reports.

6.4 Conservation and Assessment

- 6.4.1 Following (or, where suitable, during) fieldwork, the findings would be assessed against the original OAMS-OWSI and DWSIs to determine the extent to which the original research aims have been met, and to identify any new research questions to be incorporated in a post-excavation Updated Project Design (UPD).
- 6.4.2 Post-Excavation Assessment Reports (PXAs) will be produced, and these reports would form part of the Project archive. The PXAs will include a statement of the quantity and perceived quality of the data in the site archive, a statement of the archaeological potential of the data to answer the Project research aims, and recommendations on the analysis and data storage and curation requirements.
- 6.4.3 After processing, including conservation, recording and marking, the finds assemblage type from all mitigation and evaluation phases of work must be assessed to give an overview of their potential to meet the research aims of the archaeological project. The specialists' recommendations for further analysis of all, or selected components of, the finds assemblages will be given and justified at this stage and would contribute to the development of an Updated Project Design (UPD). The specialists' assessments will also determine the resource requirements for analysis and identify conservation needs both for analysis and long-term storage and curation. Further analysis should not proceed without the specialists' assessments.
- 6.4.4 Samples taken from each archaeological context will be processed and assessed by the relevant specialists for palaeoenvironmental, industrial and agricultural potential. This must include appropriate scientific dating. The specialists' assessments will also determine the resource requirements for analysis and identify conservation needs both for analysis and long-term storage and curation. Further analysis should not proceed without the specialists' assessments.
- 6.4.5 Specialists' assessments and site narratives would be prepared for inclusion in an Updated Project Design (UPD). This would be prepared on completion of the specialist assessment, providing a scope for the full analysis, reporting and publication of the findings, as well as archive deposition (both physical and digital). In addition to reporting, digital vector plans of processed geophysical survey data (greyscale and interpretation plots), trial trenches and mitigation areas, recorded archaeological features and excavated sections, should be provided as georeferenced (EPSG: 27700) ESRI shape or QGIS GPK files. These files should have the relevant attributes attached to them including; HER Parish/Site Code, Primary Reference Number e.g. (Section Number, Context Number, Sample Number, Small Find number etc.); Group or Feature Number; Archaeological Periods and Phases. These GIS files should be provided to the relevant HER following approval of the Post-Excavation Assessment Report(s).

6.5 Analysis and Reporting

- 6.5.1 The updated Project-specific research aims would be addressed in determining the scope for further specialist analysis. This would be carried out in consultation with the relevant LPA and in line with the approved Updated Project Design (UPD). The UPD will set out measurable programme milestones, to ensure a reasonable and timely programme for the final publication of the results and secure archive deposition (both physical and digital).
- 6.5.2 The Updated Project Design (UPD) will define a programme of publication and the number and nature of publications, e.g. journal articles and monographs, appropriate to the significance and extent of archaeology investigated by the project. As a minimum all results will be published as summaries in a regional publication such as Proceedings of the Suffolk Institute for Archaeology and History. This will be undertaken within agreed timescales set out within the UPD.

6.6 Archiving

- 6.6.1 All reasonable steps would be taken to obtain the agreement of the landowner to the deposition of the full Project archive, and transfer of title to the relevant repository or repositories before mitigation commences. Archives must be appropriately maintained and publicly accessible for future research.
- 6.6.2 An archiving strategy, including digital archiving would be developed prior to the preparation of any DWSI(s) and be further developed in the Updated Project Design (UPD). Each DWSI will outline the specific requirement for use of accession/event number or parish code per site, which will be used as a reference on all material to be archived. The following will apply:
- Norfolk - Archives will be deposited with The Norfolk Museums Service. An Event number will be obtained prior to commencement of site works. An accession number will be obtained during reporting phases of works
 - Suffolk - Archives will be deposited with Suffolk County Council Archaeological Archive, and in line with SCCAS (2026b) guidelines for deposition within Suffolk. A HER Parish Code will be obtained prior to commencement of site works for each parish within which a site falls. An archive deposition form will be completed and submitted to the SCCAS Archive Team
 - Essex and Colchester – Archives will be deposited with Essex Museums Service or Colchester and Ipswich Museum Service (as appropriate). A unique site code will be agreed with the Local Planning Authority Archaeological Advisor prior to commencement of site works for each site. An accession number will be obtained in conjunction with the site code for deposition. It will need to be determined whether a single combined deposition location for the archives is practicable. This will be ascertained on a site-specific basis as required. If an agreement cannot be reached between the districts within Essex, individual deposition requirements will be determined per district.
- 6.6.3 The relevant repository or repositories would be consulted before the archive is prepared regarding the specific requirements for the archive deposition and curation, and regarding any specific cost implications of deposition, including the long-term storage of material requiring special conditions, such as relative humidity and temperature. This will typically occur at the Post-Excavation Assessment and Updated Project Design Stage.

- 6.6.4 If no relevant repository or repositories are identified, the Project would ensure the storage of the archive until an appropriate repository is available. All repositories will need to be approved by the relevant LPAAA.
- 6.6.5 In addition to the deposition of Project reports and archive with the relevant Local Planning Authority Archaeological Advisors, an electronic record of the Project details would be created through OASIS. The Project record would include technical details for each technique used in the Project. Subject to any contractual requirements on confidentiality, copies of the OASIS record would be integrated into the relevant local and national records and published through the Archaeology Data Service.

6.7 Digital Data

- 6.7.1 A strategy for digital data would be developed setting out the requirements for the management and preservation of digital data created during the course of the Project. This would require the production of a Digital Management Plan, which will be produced by the Archaeological Contractor(s). The Digital Management Plan will be updated during the Post-Excavation Assessment and full requirements for digital archiving will be included in the Updated Project Design (UPD). All relevant digital data generated by the project will be archived to national standards and would be transferred at the end of the Project to a suitable facility or collections repository where it can be properly accessed, curated and maintained (such as Archaeology Data Service (University of York), or other cloud based service).

6.8 Publication and Outreach

- 6.8.1 The Project will provide scope for additional and more complex reporting, through for example a periodical or regional journal, stand-alone 'monograph' publication and/or popular publication. In addition, popular publications that include, for example, reconstruction drawings and non-technical summaries could be provided to make the results of the on-site mitigation recording more publicly accessible. A programme and strategy for the publication, and public dissemination of the results of the archaeological programme of works would be provided in the UPD.
- 6.8.2 Opportunities should be considered and undertaken as appropriate to disseminate the results publicly. The archaeological contractor would retain a dedicated Archaeological Outreach Officer who will produce a Public Archaeology and Community Engagement strategy (PACE). The PACE will set out a Project-wide strategy for public engagement detailing the results of audience mapping, the targeted audiences and the activities to be undertaken. This will include a programme of activities throughout the Project lifecycle and might include, but not be limited to, public talks to take place locally during the excavation phase of the project, school visits and the use of social media to disseminate information. If the results present significant information a public facing conference at the end of the project may be arranged or presentations made at existing conferences. Other ideas for public benefit should also be explored and detailed in the PACE and Updated Project Design (UPD) and presented, where applicable, in the relevant DWSI.

Abbreviations

Abbreviation	Full Reference
ACoW	Archaeological Clerk of Works
AIS	Air Insulated Switchgear
AONB	Area of Outstanding Natural Beauty
ATT	Archaeological Trial Trenching
BNG	Biodiversity Net Gain
CBS	Cement-Bound Sand
CIfA	Chartered Institute for Archaeologists
CoCP	Code of Construction Practice
CSE	Cable Sealing End
CWS	County Wildlife Sites
AMS-OWSI	Archaeological Mitigation Strategy and Outline Written Scheme of Investigation
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
DMRB	Design Manual for Roads and Bridges
DWSI	Detailed Written Scheme of Investigation
EACN	East Anglia Connection Node
EERRF	East of England Regional Research Framework
ES	Environmental Statement
GIS	Gas Insulated Switchgear
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HVAC	High Voltage Alternating Current
kV	kilovolts
LoD	Limits of Deviation
LPAAA	Local Planning Authority Archaeological Advisor
LWS	Local Wildlife Sites

Abbreviation	Full Reference
MLD	Maximum Linear Dimension
NPS	National Policy Statement
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
OASIS	Online Access to the Index of Archaeological Investigations
OSL	Optically Stimulated Luminescence
OWSI	Outline Written Scheme of Investigation
PD	Project Design
PXA	Post-Excavation Assessment Report
SCCAS	Suffolk County Council Archaeology Service
SMS	Strip, Map and Sample Excavation
SSSI	Sites of Special Scientific Interest
UKPN	UK Power Networks
UPD	Updated Project Design

Glossary

Term	Definition
Additional mitigation	Additional mitigation comprises measures over and above any embedded and standard mitigation measures, for which assessment within the ES has identified a requirement to further reduce significant environmental effects.
Alignment	The proposed overhead line and underground cable route.
Ancient woodland	Land that has been continually wooded since at least 1600 in England. Regarded as ‘irreplaceable habitat’ in national planning policy and guidance. Ancient woodland greater than 2 ha is recorded on the Natural England Ancient Woodland Inventory.
Angle/tension pylon	Pylon where a horizontal insulator string attaches the conductors. Tension or ‘angle’ pylons are used at points where the overhead line alignment changes direction.
Archaeological remains	The material remains of human activity from the earliest periods of human evolution to the present. These may be buried traces of human activities, sites visible above ground, or moveable artefacts.
Archaeological Mitigation Strategy and Outline Written Scheme of Investigation	Sets out the scope, guiding principles and methods for the planning and implementation of additional archaeological mitigation works associated with the construction of the Project.
Embedded mitigation	Embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project.
Baseline	Reference to the report which identifies, describes, and collates the historic environment resource identified from desk-based sources, walkover, and setting survey within the Order Limits and defined Study Areas for the Project.
Bellmouth	A flared vehicular access point connecting a construction site to the public highway, designed to accommodate turning movements by large vehicles.
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biodiversity Net Gain	An approach for developments to ensure habitats for wildlife are left in a measurably better state than they were before the development.
Cable	An insulated conductor designed for underground installation.

Term	Definition
Cable Sealing End	Structures used to transfer transmission circuits between underground cables and overhead lines.
Cable Sealing End compound	Electrical infrastructure used as the transition point between overhead lines and underground cables. A compound on the ground acts as the principal transition point.
Circuit	A set of wires along which current flows and returns. It is necessary to have a complete circuit for current to flow. The National Grid standard for overhead lines operating at 400 kV is for pylons to carry two circuits, each consisting of three phases, i.e. a double circuit configuration.
Code of Construction Practice	A code of construction practice sets out the standards and procedures to which a developer (and its contractors) must adhere in order to manage the potential effects of construction works.
Conductor	The overhead wire that carries electricity from one place to another, for example the line between two pylons.
Consultation(s)	Meeting(s) with stakeholders, councils, the client, and the public that are required to be conducted at different stages of the Project prior to decision making, to discuss the potential impacts made by the Project on designated and non-designated heritage assets within the Order Limits and Study Areas.
Contaminated Land	Land where a substance or contaminant is in or under the land which has the potential to cause significant harm or the significant possibility of significant harm to human health, property or protected species, or significant pollution or the significant possibility of significant pollution to controlled waters.
Environmental Statement (ES)	The main output from the EIA process, an ES is the report required to accompany an application for development consent (under the Infrastructure Planning (EIA) Regulations 2017) to inform public and stakeholder consultation and the decision on whether a project should be allowed to proceed. The EIA Regulations set out specific requirements for the contents of an ES for Nationally Significant Infrastructure Projects.
Designated Heritage Asset	Assets which have been attributed certain degrees of importance, that include listed buildings, World Heritage Sites, registered parks and gardens, scheduled monuments, and conservation areas.
Gantry	An overhead bridge-like structure supporting electrical equipment. A transition point from overhead line equipment to equipment in a compound.
Geophysical Survey	A non-destructive survey method in which specialist equipment is used to map subsurface features and conditions by measuring the physical properties of the earth. The imagery produced through this survey provides valuable information in the form of charted data and images that are then analysed and interpreted by a specialist.

Term	Definition
Haul road	A route used by construction traffic within the Order Limits to access a working area from a site access point.
Horizontal directional drilling	Trenchless method for the installation of pipes, in a shallow arc using a surface-launched drilling rig. In particular, it applies to large-scale crossings in which a fluid filled pilot bore is drilled without rotating the drill string, and this is then enlarged by a washover pipe and back reamer to the size required for the product pipe.
High voltage	275,000 volts and over. National Grid's transmission lines generally operate at 275,000 and 400,000 volts. Lower voltage lines, such as 132,000 volts and 33,000 volts, are generally owned by local distribution companies.
High voltage alternating current	The transmission and distribution of electrical energy using alternating current (AC) at high voltage levels.
Historic buildings	Architectural, designed, or other structures with a significant historical value. These may include structures that have no aesthetic appeal or structures not usually thought of as buildings, such as milestones or bridges.
Historic Environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Historic Landscape	The current landscape, whose character is the result of the action and interaction of natural and/or human factors
Impact(s)	The degree of change to the asset and its setting caused by the Project and which is graded through the magnitude of impact criteria.
Insulator	Used to attach the conductors to the pylons, preventing electrical discharge to the steelwork.
Kilovolt	1,000 volts
Lattice pylon	Pylon type widely used on the national electricity transmission networks. Both standard lattice pylons (approximately 50 m in height) and low high lattice pylons (approximately 40 m in height) are proposed on the Project.
Limits of Deviation (LoD)	LoD allow for adjustment to the final positioning of the permanent features, for example to avoid localised constraints or unknown or unforeseeable issues that may arise. This could include previously unidentified poor ground conditions which require a pylon to be moved slightly for geotechnical reasons, such as ground stability. The horizontal LoD define the parameters within which the position on the ground of proposed permanent features may deviate from the position shown on the plans. This applies to both linear (for example overhead lines and underground cables) and non-linear (for example the new EACN Substation and CSE compounds) proposed infrastructure.

Term	Definition
	Vertical LoD limit the maximum vertical height, or the depth below ground, of any new infrastructure.
Local Planning Authority	The public authority whose duty it is to carry out specific planning functions for a particular area.
Main Works Contractor(s)	Contractor(s) appointed by National Grid to construct the Project.
Mitigation	The action of reducing the severity and magnitude of change (impact) to the environment. Measures to avoid, reduce, remedy or compensate for significant adverse effects.
National Landscape (an Area of Outstanding Natural Beauty)	Formally designated under the National Parks and Access to the Countryside Act of 1949 to protect areas of the countryside of high scenic quality that cannot be selected for National Park status due to their lack of opportunities for outdoor recreation (an essential objective of National Parks). As of November 2023, all AONBs became 'National Landscapes'. This reflects ambitions for the areas to play a key part in the international '30 by 30' commitment (to protect and conserve a minimum of 30% of land and sea for biodiversity by 2030).
Non-Designated Heritage Asset	Assets such as buildings, objects, monuments, sites, places, areas, and landscapes, and information from the Historic Environment Record that are recognised by local authorities as having heritage significance but that are not protected formally by law like a designated heritage asset it. Non-designated heritage assets are values for their contribution to the character and identity of the locality, and their historical, architectural, artistic, and/or archaeological interest.
Order Limits	The maximum extent of land within which the authorised development may take place.
Overhead line	Conductor (wire) carrying electric current, strung from pylon to pylon.
Permanent access	Access required to infrastructure during the operational phase of the Project, for operational and maintenance purposes.
Piling	Engineering process of installing elongated structural elements, known as piles, into the subsoil. This technique is employed to transfer structural loads to deeper, more competent strata, thereby providing stable foundations for construction projects. Essentially, it addresses situations where surface soils lack sufficient bearing capacity to support intended structures.
Primary Access Routes (PAR)	These are the roads on the local road network that would be used by construction vehicles between the strategic road network and the access points within the Order Limits.
Pylon	Structures that support the overhead line (conductors).
Setting	The surroundings in which a heritage asset or landscape designation is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or

Term	Definition
	negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
Site access points	A location connecting a construction site to the public highway.
Standard mitigation	Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.
Significance	The collective term for the sum of all the heritage values that are attached to a place (e.g. a building, archaeological site, larger historic area, etc.) which is then assessed.
Subsoil	Weathered soil layer extending between the natural topsoil and the unweathered basal layer (geological parent material, either solid or drift) below.
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
Suspension pylon	Pylon where conductors are suspended by a vertical insulator string. Suspension pylons support the conductors on straight stretches of overhead line.
Temporary construction compounds	Temporary compounds installed during the construction phase of the Project. Each compound may contain storage areas including laydown areas, soils storage and areas for equipment and fuel, drainage, generators, car parking and offices and welfare areas (portacabins).
Temporary overhead line diversions and pylons	Temporary diversions of existing overhead line may be required to ensure electricity flows are maintained at all times during construction of the Project to limit the disruption to the electricity network. These typically comprise a short section of overhead line with temporary structures or pylons which electricity flows are diverted along.
Terminal pylon	Pylons erected at the end of the overhead line to terminate the line at substations or where overhead lines are connected to underground cables. Because of the uneven load on one side of the pylons, much deeper and heavier foundations are required on the unloaded side.
Trenchless crossing	A crossing installation method that has limited above-ground disturbance which is used to avoid a sensitive feature such as an environmental feature.
Topsoil	Material which developed originally at the top of the soil profile and is characteristically darker in colour and has a higher organic matter content than subsoil material.
UK Power Networks	UK Power Networks (Operations) Limited (registered company number 03870728) and/or its affiliate Eastern Power Networks plc (registered company number 02366906) as applicable.

Term	Definition
Underground cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds.
Updated Project Design (UPD)	The UPD is a post-excavation document that will consolidate findings from the post-excavation assessment reports across the project and define a programme of further analysis and specialist study, detail the required work, including further analysis, scientific dating and specialist reporting, provide a clear delivery timetable and costed programme for completion of the post-excavation work, including publication of results and archive deposition (including provision to enter the accrued data in to the relevant county Historic Environment Records) and secure archive deposition with the relevant LPAAA's archaeological archive repository and digital archiving with the Archaeological Data Service (ADS).
Value	A descriptor of the importance of a heritage asset which derives from the asset's ability to illustrate one or more of the Conservation Principles (Historic England, 2008).
Voltage	The electrical potential difference between two points.
Working area	Working area required to construct elements of the Project, such as pylons, underground cables, CSE compounds.

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Appendix A. Locations and Reasons for Gaps in the Completed and Ongoing Archaeological Evaluation Fieldwork

Appendix A

Locations and Reasons for Gaps in the Completed and Ongoing Archaeological Evaluation Fieldwork

At various points along the route of the Project there are areas where no geophysical survey and/or archaeological trial trenching is proposed as part of the Project's archaeological fieldworks. The locations and reasons for these 'gaps' are recorded in the following table.

Location	Reason	HER ref.
RG1 to RG5	Trial Trenching by Headland Archaeology at Mangreen Quarry, Swardeston/Swainsthorpe/Stoke Holy Cross, August-October 2011	ENF129414
RG13 and haul road between RG13 and RG15	Trial Trenching by Pre-Construct Archaeology of land off Brick Kiln Lane, Mulbarton/Newton Flotman/Swainsthorpe, February-June 2023	ENF153219
	Trial Trenching by Pre-Construct Archaeology at land south of Brick Kiln Lane, Mulbarton, September 2015	ENF138854
Haul road between RG24 and RG25	No haul road	N/A
Haul road between RG87 and RG86	No haul road	N/A
Haul road between RG94 and RG95	No haul road	N/A
RG161 to RG162	No haul road	N/A
RG165 to RG166	No haul road	N/A
RG202	Evaluation - Land to the South of Church Farm, Somersham and Land to the East of the Channel, Burstall	ESF28549
RG207-208 and haul road	Evaluation - Bullen Lane, Bramford	ESF23128
	Watching Brief - East Anglia One Area 43	ESF25143
	Watching Brief - East Anglia One Area 44	ESF25144
	Landscaped area for substation - as seen on Google Earth Pro, image date 24/09/2017	
Between JC16 and JC17	No haul road	N/A
Between TB15 and TB16 haul road	No haul road	N/A
TB20 haul road	Existing trackway	N/A
Between TB59 and TB60	No haul road	N/A

Location	Reason	HER ref.
TB84	Rivenhall Airfield/Bradwell Quarry Area Site A6 and A7	EEX59322
TB132 and haul road	ATT seen on Google Earth Pro, image date 01/03/2022	N/A
TB139-TB140	No haul road	N/A
Haul road between TB157 and TB158	Quarry - seen on Google Earth Pro, image date 01/12/2000	N/A
Haul road north-east of Roxwell road, between TB161 and TB162	Old landfill/quarry	N/A
Between TB165 and TB166	No haul road	N/A
Haul road between TB201-TB204	Pre-existing tracks	N/A
TB224 and haul road	Archaeological Evaluation at Dunton Road, Herongate	EEX59885
TB232	Solar farm	N/A
Haul road west of TB246	Pre-existing track	N/A
TB257 to TB258	Historic landfill, Buckingham Hill, old quarry/land fill on Google Earth Pro Maps	N/A
TB262	Golf course	N/A
Everything west of YYJ125 and ZB13	LTC ATT	N/A

Appendix B.

Archaeological

Mitigation Areas

Appendix B

Archaeological Mitigation Areas

These mitigation areas proposed by National Grid are based on the design as presented in 6.4.F1 Environmental Statement Figure 4.1 - Proposed Project Design (document reference 6.4.F1) (Revision B) and identified through the Priority geophysical and trial trenching surveys, and the results of earlier phases of archaeological fieldwork recorded in the relevant HER unrelated to the Project. If the design is amended through the detailed design process these mitigation areas will be reviewed and amended as required in consultation with the relevant LPAAA. Unless stated otherwise, either detailed excavation or strip, map and sample are assumed to be the mitigation methods. The mitigation area and methodology will be defined in the relevant DWSI and agreed with the LPAAA through that document. The mitigation areas (Figure 2) are based on the results of the evaluation work reported in the Archaeological Contractor's assessment reports submitted with the DCO [APP-209], as Supplementary Environmental Information (SEI) [AS-078] or received since the submission of the SEI data. The trench plans will also be illustrated in the DWSIs relevant to the mitigation areas.

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m ²)
101a	Suffolk / 007 / 14	Substation compound RG-SC02, substation compound buffer, temporary attenuation drainage works, and the temporary haul road	Geophysical survey identified three enclosure complexes with internal divisions and discrete features along the northern edge of the evaluation area. The subsequent trial trenching dated the majority of the archaeological remains to the medieval period. As the trenching did not pick up evidence of the activity in the south of the evaluation area, the proposed mitigation area is focussed on the northern portion of the evaluation area.	27916
101b	Suffolk / 007 / 14	Temporary attenuation drainage works	The archaeological trial trenching of this area has revealed a pit with Bronze Age pottery. This mitigation area is located in order to search for associated features.	1359
101c	Suffolk / 007 / 14	Substation compound RG-SC02	The archaeological trial trenching of this area has revealed a pit with early Iron Age pottery. This mitigation area is located in order to search for associated features.	1600
101d	Suffolk / 007 / 14	Substation compound RG-SC02	The archaeological trial trenching of this area has revealed a pit with Iron Age pottery. This mitigation area is located in order to search for associated features.	1600

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m²)
102a	Suffolk / 008 / 15S	Underground cable alignment, bypass haul road, temporary attenuation drainage works	The archaeological trial trenching of this area has revealed evidence of Iron Age/Romano-British settlement activity. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	9720
102b	Suffolk / 008 / 15S	Underground cable alignment	The archaeological trial trenching of this area has revealed Romano-British ditches, pits and post-holes. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	22593
102c	Suffolk / 008 / 15S	Underground cable alignment	The archaeological trial trenching of this area has revealed a potential enclosure. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	4626
102d	Suffolk / 008 / 15S	Underground cable alignment, bypass haul road	The archaeological trial trenching of this area has revealed Romano-British enclosures and pits. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	18459
103a	Suffolk / 008 / 19	Underground cable alignment, temporary attenuation drainage works	The archaeological trial trenching of this area has revealed evidence of Bronze Age and Iron Age settlement activity as well as Neolithic pits. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	110008
103b	Suffolk / 008 / 21	Underground cable alignment	The archaeological trial trenching of this area has revealed evidence of undated ditches. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	5528
107	Essex / 009 / 27	Underground cable alignment, construction laydown area	Cropmark evidence suggests the presence of field boundaries, a trackway and a subcircular enclosure. The evaluation identified these features and dated the trackway and field boundaries to the post medieval period. The subcircular enclosure remains undated but was 'respected' by the post medieval landscape. This mitigation area is located in order to clarify the nature of and potentially date the subcircular enclosure.	36282

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m²)
108	Essex / 001 / 3	Little Bromley Road cable compound (JC-CC05), temporary infiltration drainage works	The archaeological trial trenching of this area revealed possible evidence of Iron Age activity likely peripheral to an area of settlement. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	11992
109	Essex / 001 / 1	Environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed two Bronze Age pits. This mitigation area is located in order to search for associated features.	1064
110	Essex / 001 / 1	Batching compound (JC-BC03)	The archaeological trial trenching of this area revealed an undated partial possible ring ditch suggested to be of Bronze Age date by the archaeological contractor. This mitigation area is located in order to clarify the nature and extent of the ring ditch and to search for associated features.	760
111	Essex / 001 / 1	Environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed a curvilinear feature interpreted as part of a possible enclosure by the archaeological contractor. This mitigation area is located in order to clarify the nature and extent of the possible enclosure and to search for associated features.	2529
112a	Essex / 001 / 1	Environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed a series of Romano-British linear features. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	1517
112b	Essex / 001 / 1	Environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed a series of Romano-British linear features. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	1111
113a	Essex / 010 / 39	Cable compound (TB-CC03), underground cable alignment, bypass haul road	The archaeological trial trenching of this area revealed evidence of possible Romano-British settlement activity and possible medieval pottery production. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	9456

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m ²)
113b	Essex / 010 / 39	Bypass haul road	The archaeological trial trenching of this area revealed evidence of possible Romano-British settlement activity and possible medieval pottery production. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	4709
114	Essex / 010 / 44	Underground cable alignment, bypass haul road	The archaeological trial trenching of this area revealed evidence of a Romano-British enclosure and likely associated field boundaries. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	8297
115	Essex / 010 / 40	Underground cable alignment, bypass haul road, temporary infiltration drainage works	The archaeological trial trenching of this area revealed evidence of possible medieval roadside settlement activity and potential Bronze Age activity. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	13998
116	Essex / 010 / 47	Great Horkesley – Tilbury side cable sealing end compound (CSEC#3), underground cable alignment, bypass haul road, permanent and temporary attenuation drainage works, permanent spoil bund, environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed evidence of Romano-British settlement activity as well as late Iron Age and medieval remains. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	54408
117E	Norfolk / 002 / 4	UKPN overhead line mitigation	The archaeological trial trenching of this area revealed evidence of medieval settlement activity and strip field system. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	5009

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m ²)
117W	Norfolk / 002 / 4	Pylon RG57, temporary haul road, SuDS basin	The archaeological trial trenching of this area revealed evidence of medieval settlement activity and strip field system. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	6597
118	Essex / 016 / 54N	Tilbury North Substation	The archaeological trial trenching of this area revealed a dense area of undated pits and ditches considered to be of potentially prehistoric date. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	5225
119	Essex / 016 / 54N	Permanent attenuation drainage works, environmental area – landscape mitigation	The archaeological trial trenching of this area revealed two Romano-British post-holes. This mitigation area is located in order to search for associated features.	900
120	Suffolk / 008 / 17	Underground cable alignment, cabling haul road	The archaeological trial trenching of this area revealed probable prehistoric features possibly associated with the late Iron Age / Romano-British enclosure a little to the south identified by the Suffolk HER. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	8892
121	Suffolk / 008 / 17	Underground cable alignment, temporary infiltration drainage works	Project mapped cropmarks, the geophysical survey and archaeological trial trenching identified anomalies and archaeological features indicating the presence of a large late Iron Age / Romano-British enclosure with an internal enclosure and discrete features. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	16614
122a	Suffolk / 008 / 21	Underground cable alignment, temporary attenuation drainage works	Preservation In Situ (partial) / The archaeological trial trenching of this area revealed evidence of prehistoric enclosure system, likely associated with more intensive activity to the south. Some areas of the archaeological remains in this location will be preserved in situ as the field to the south will be crossed using a trenchless method.	49172

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m²)
122b	Suffolk / 008 / 21	Underground cable alignment	The archaeological trial trenching of this area identified a pit containing neolithic pot. This mitigation area is located in order to search for associated features.	1600
122c	Suffolk / 008 / 21	Underground cable alignment	The archaeological trial trenching of this area identified two medieval refuse pits. This mitigation area is located in order to search for associated features.	945
123	Suffolk / 008 / 22N	Underground cable alignment, cabling haul road	Preservation In Situ – trenchless crossing / Project mapped cropmarks, geophysical anomalies and archaeological evaluation features suggest a prehistoric enclosure system of potential late Iron Age to Romano-British date. The archaeological remains in this location will be preserved in situ as the field will be crossed using a trenchless method.	33074
124	Essex / 009 / 25	Within construction swathe for underground cable alignment	The archaeological trial trenching of this area revealed evidence of medieval activity. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	1145
126	Essex / 009 / 29E	Within construction swathe for underground cable alignment	The archaeological trial trenching of this area revealed a partial, possible ring ditch / roundhouse. This mitigation area is located in order to clarify the nature, date and extent of the ring ditch, and to search for associated features.	398
128a	Essex / 009 / 31	Pylon TB8, underground cable alignment, temporary infiltration drainage works, a SuDS basin, cabling haul road, temporary haul road	The archaeological trial trenching of this area revealed phased field systems. This mitigation area is located in order to clarify the nature, date and phasing of the field systems, and to search for associated features.	55163
128b	Essex / 009 / 32	Underground cable alignment, temporary infiltration drainage works	Located to investigate phased field systems, also evidence of early prehistoric activity. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	36056

Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m²)
128c	Essex / 009 / 32	Temporary infiltration drainage works	Located to investigate phased field systems, also evidence of early prehistoric activity. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	2863
129	Essex / 016 / 54N	Tilbury North Substation – Substation Compound (TB-SC08), biological net gain mitigation	The archaeological trial trenching of this area revealed medieval ditches and pits. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	2022
130	Suffolk / 008 / 15C	Bypass haul road	The archaeological trial trenching of this area revealed a Romano-British ditch and possible spreads of occupation material. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	4655
131	Suffolk / 008 / 15N	Wenham Grove CSE Compound (JC-SC01), compound buffer	The archaeological trial trenching of this area revealed the north-east corner of a Roman-British enclosure. This mitigation area is located in order to clarify the nature, date and extent of the enclosure.	3387
132	Suffolk / 008 / 15N	Bypass haul road	The archaeological trial trenching of this area revealed the possible remains of a Romano-British kiln and linear feature. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	1600
133	Suffolk / 008 / 15N	Environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed a possible cremation burial. This mitigation area is located in order to search for associated features.	1600
134	Essex / 012 / 50N	Fairstead – Tilbury Side Cable Sealing End Compound (CSEC#5), permanent spoil bund	The archaeological trial trenching of this area revealed a prehistoric pit. This mitigation area is located in order to search for associated features.	400

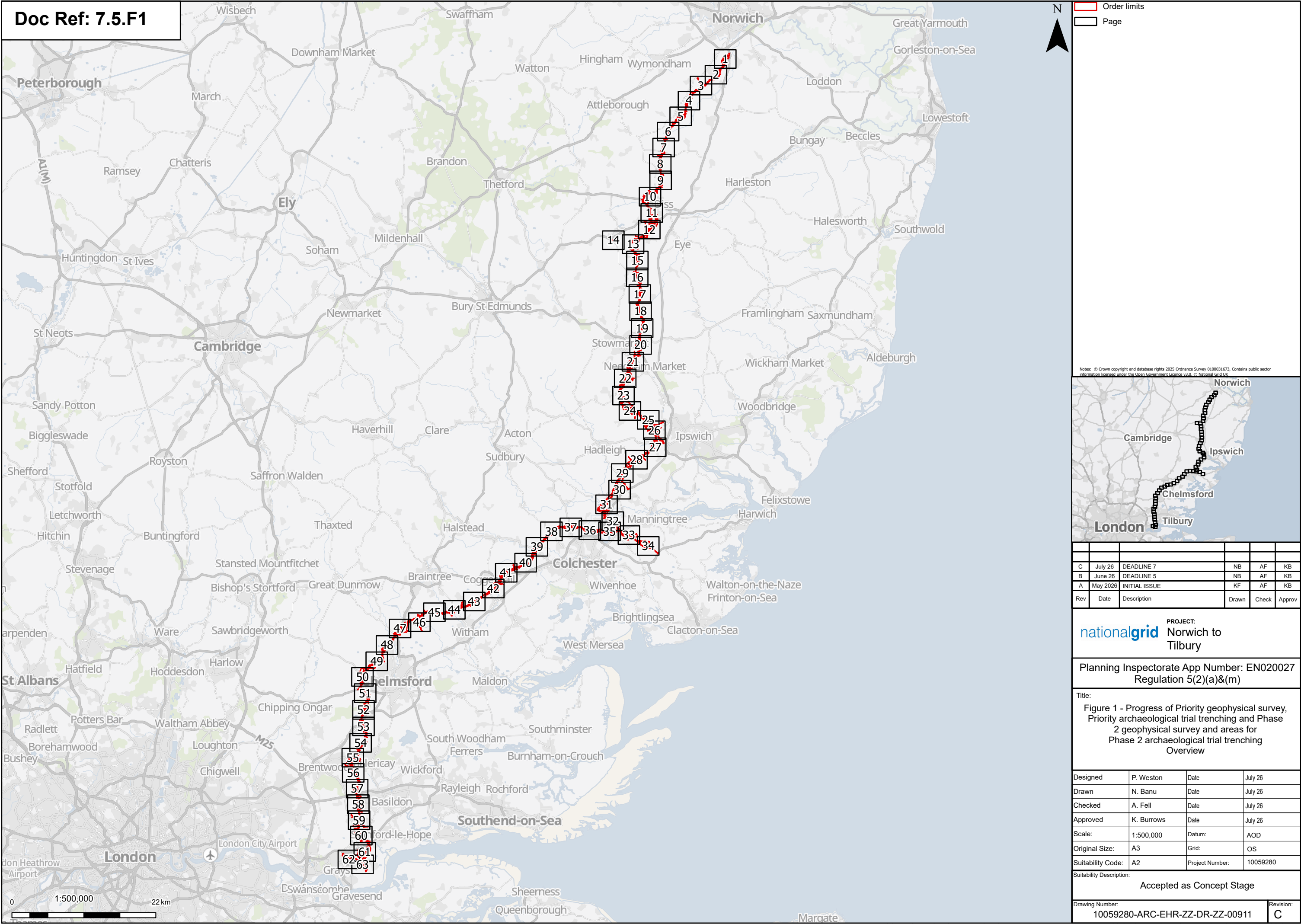
Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m²)
135	Suffolk / 005 / 12	RG Main Compound, temporary haul road	The archaeological trial trenching of this area revealed part of a possible Romano-British enclosure. This mitigation area is located in order to clarify the nature, and extent of the archaeological remains, and to search for associated features.	2201
136a	Essex / 009 / 61	Within construction swathe for underground cable alignment	The archaeological trial trenching of this area revealed a possible medieval enclosure and associated field system. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	3348
136b	Essex / 009 / 61	Underground cable alignment	The archaeological trial trenching of this area revealed a 16th - 18th century brick-built cellar and well. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	9444
137	Essex / 009 / 62	Underground cable alignment, cabling haul road	The archaeological trial trenching of this area revealed evidence of Romano-British ditches and a pit as well as post medieval and widespread undated ditches. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	50726
138	Essex / 009 / 24N	Langham Hall Cabling Compound (JC-CC03), batching compound (JC-BC02), temporary attenuation drainage works, cabling haul road	The archaeological trial trenching of this area revealed evidence of prehistoric activity and three undated cremations as well as widespread undated features. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains and to search for further evidence of funerary activity.	72484
139	Essex / 009 / 34	EACN Substation, temporary attenuation drainage works, temporary haul road, environmental area – permanent landscape mitigation	The archaeological trial trenching of this area revealed a widespread concentration of prehistoric, Iron Age/Romano-British, Romano-British, post medieval and undated archaeological remains. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	59120

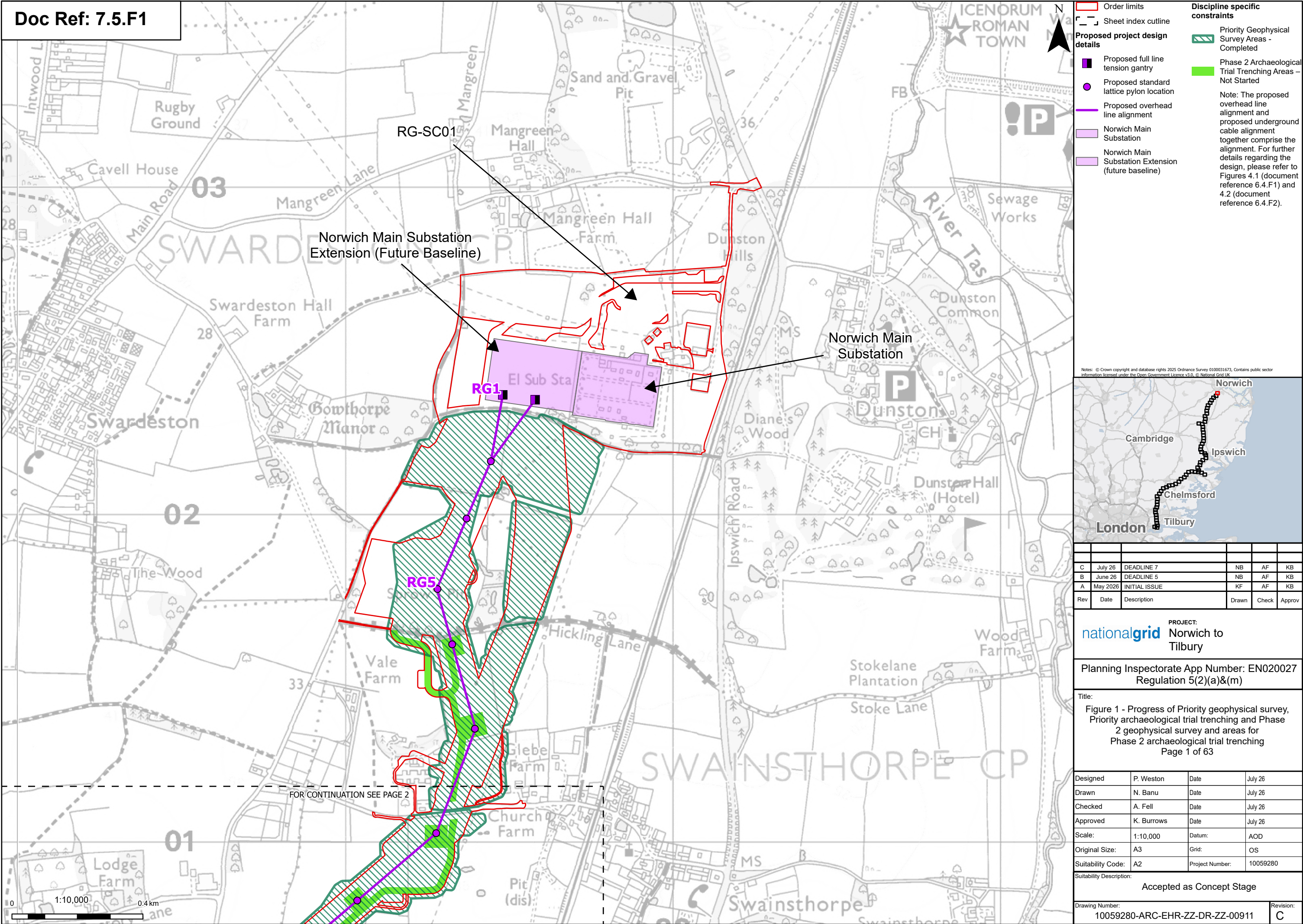
Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m ²)
140	Essex / 009 / 29E	Underground cable alignment, cabling haul road, temporary haul road	The archaeological trial trenching of this area revealed mostly undated field boundaries, but one of possible middle Bronze Age date which is moderately close to an undated and un-urned cremation. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains and to search for further evidence of funerary activity.	5484
141	Essex / 009 / 60	Underground cable alignment	The archaeological trial trenching of this area revealed a small concentration of undated pits and ditches. One sherd of undated pottery was recovered. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	3387
142	Essex / 009 / 60	Underground cable alignment	The archaeological trial trenching of this area revealed a trackway with an adjoined small enclosure. Possibly of late Iron Age / Romano-British date. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	19326
143	Norfolk / N/A / N/A	Pylon RG5, three construction laydown areas, two SuDS basins, temporary haul road	An archaeological evaluation by Headland Archaeology in August-September 2011 identified widespread evidence of early Romano-British settlement and agricultural activity. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	82336
144	Norfolk / N/A / N/A	Pylon RG3, construction laydown area, a SuDS basin, temporary haul road	An archaeological evaluation by Headland Archaeology in August-September 2011 identified widespread evidence of early Romano-British settlement and agricultural activity. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	71085
145	Suffolk / 08 / 15S	Within Order Limits for underground cable alignment	The archaeological trial trenching of this area revealed a possible roundhouse and undated enclosure. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	10069

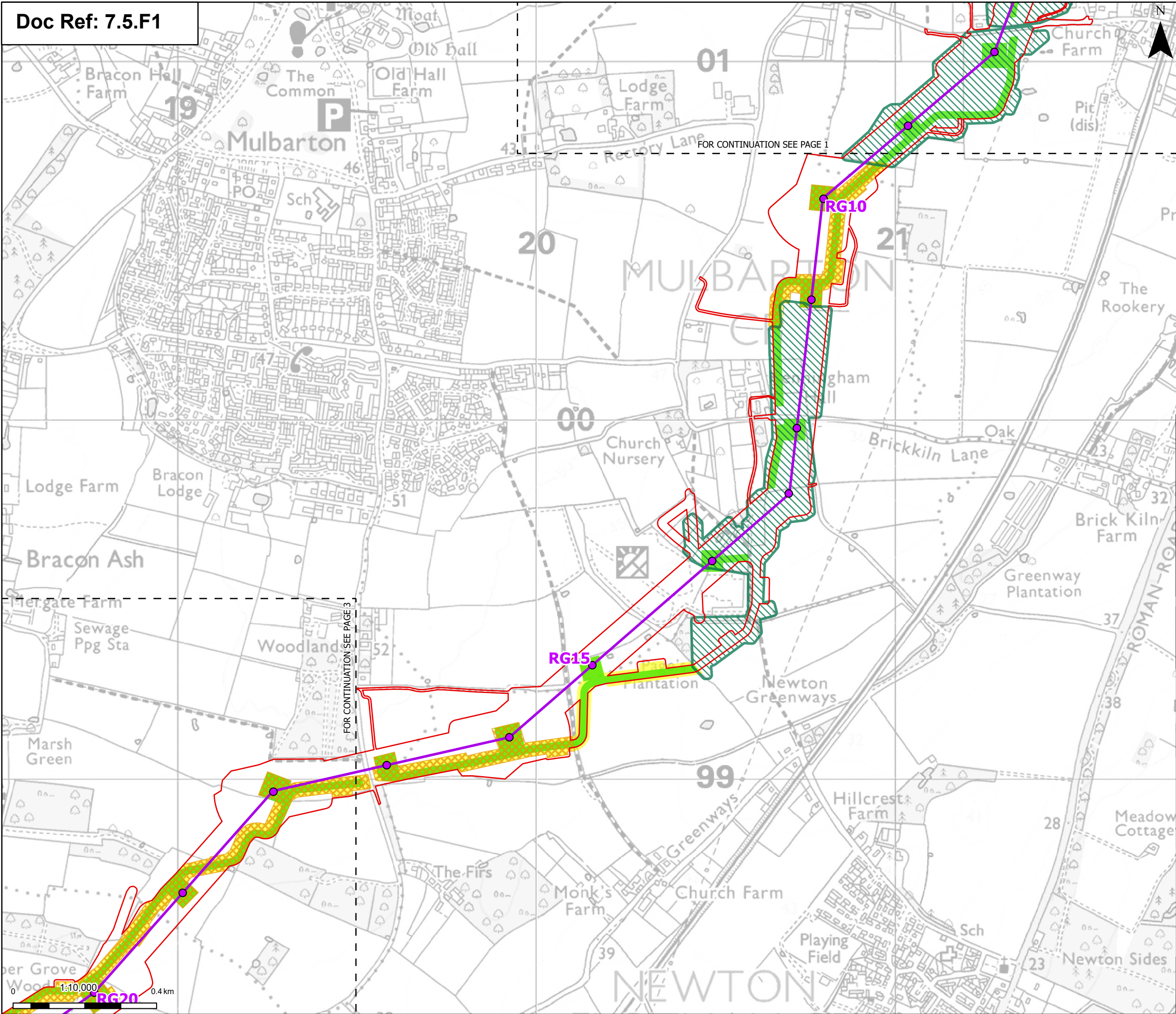
Mitigation Area ID	County / Site / Area	Project element	Rationale	Area (m ²)
146	Suffolk / 08 / 15S	Within construction swathe for underground cable alignment	The archaeological trial trenching of this area revealed a possible large ring ditch (c. 21 m diameter) and undated ditches. This mitigation area is located in order to clarify the nature, date and extent of the archaeological remains.	2366
147	Suffolk / 08 / 15S	Within construction swathe and adjacent to underground cable alignment	The archaeological trial trenching of this area revealed possible evidence of enclosed early Iron Age activity. This mitigation area is located in order to clarify the nature and extent of the archaeological remains.	10261

Figures

Figure 1 Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching







Order limits

Sheet index outline

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

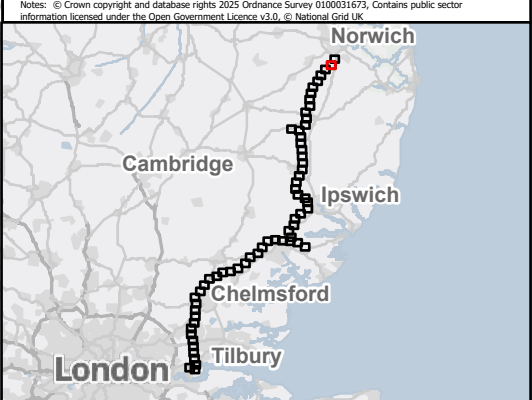
Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
C	July 26	DEADLINE 7	NB	AF	KB
B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

PROJECT:
nationalgrid Norwich to Tilbury

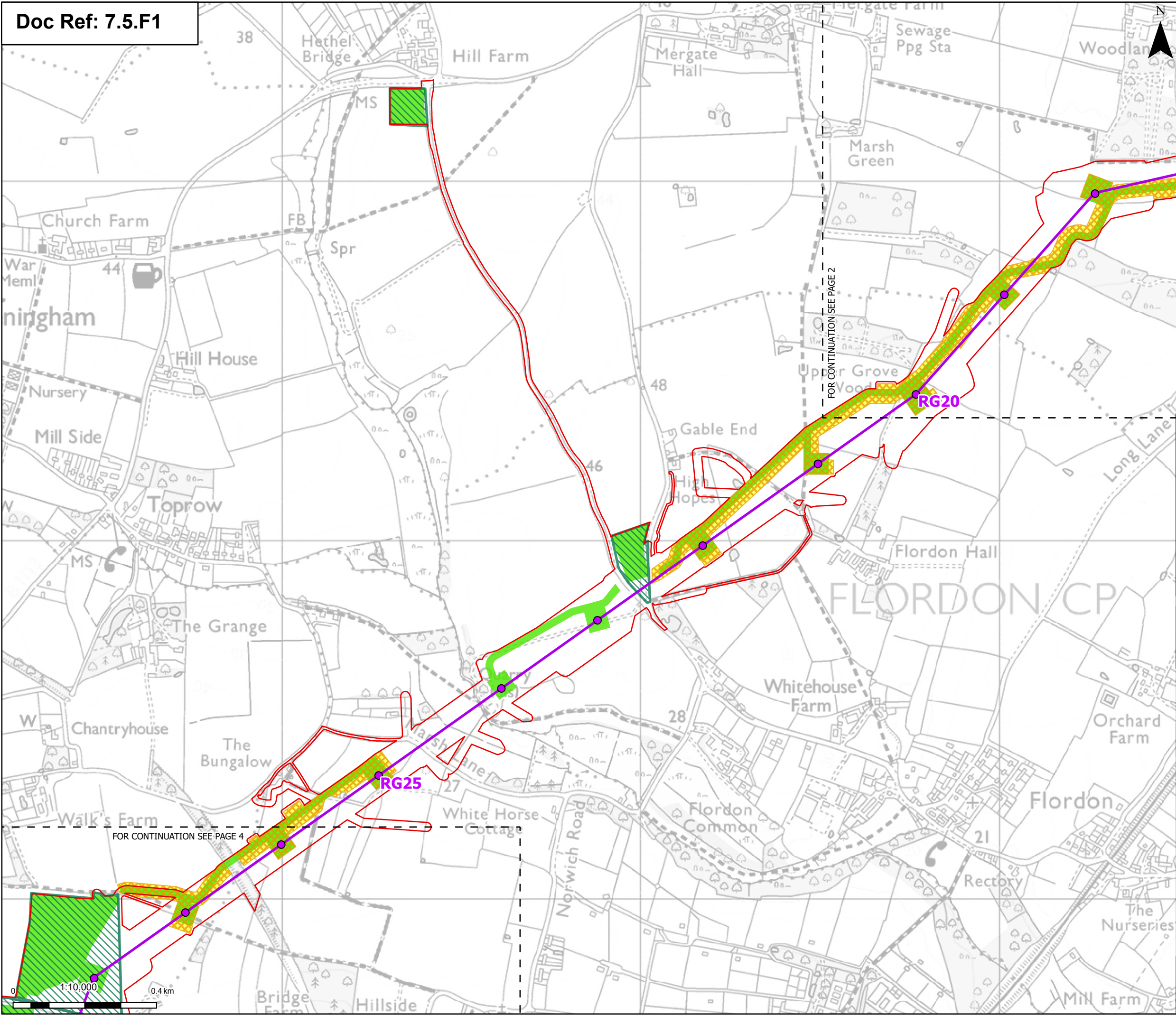
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
Page 2 of 63

Designed	P. Weston	Date	July 26
Drawn	N. Banu	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number:
10059280-ARC-EHR-ZZ-DR-ZZ-00911
Revision:
C



Order limits

Sheet index outline

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

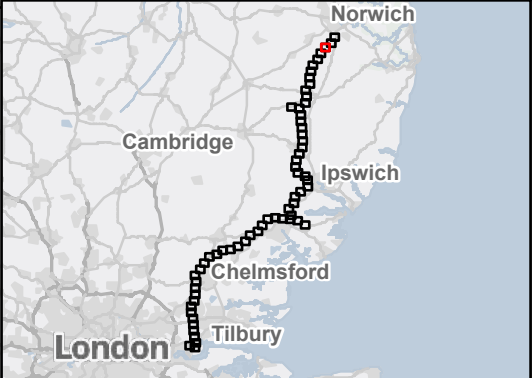
Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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C	July 26	DEADLINE 7	NB	AF	KB
B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

nationalgrid

PROJECT:
Norwich to
Tilbury

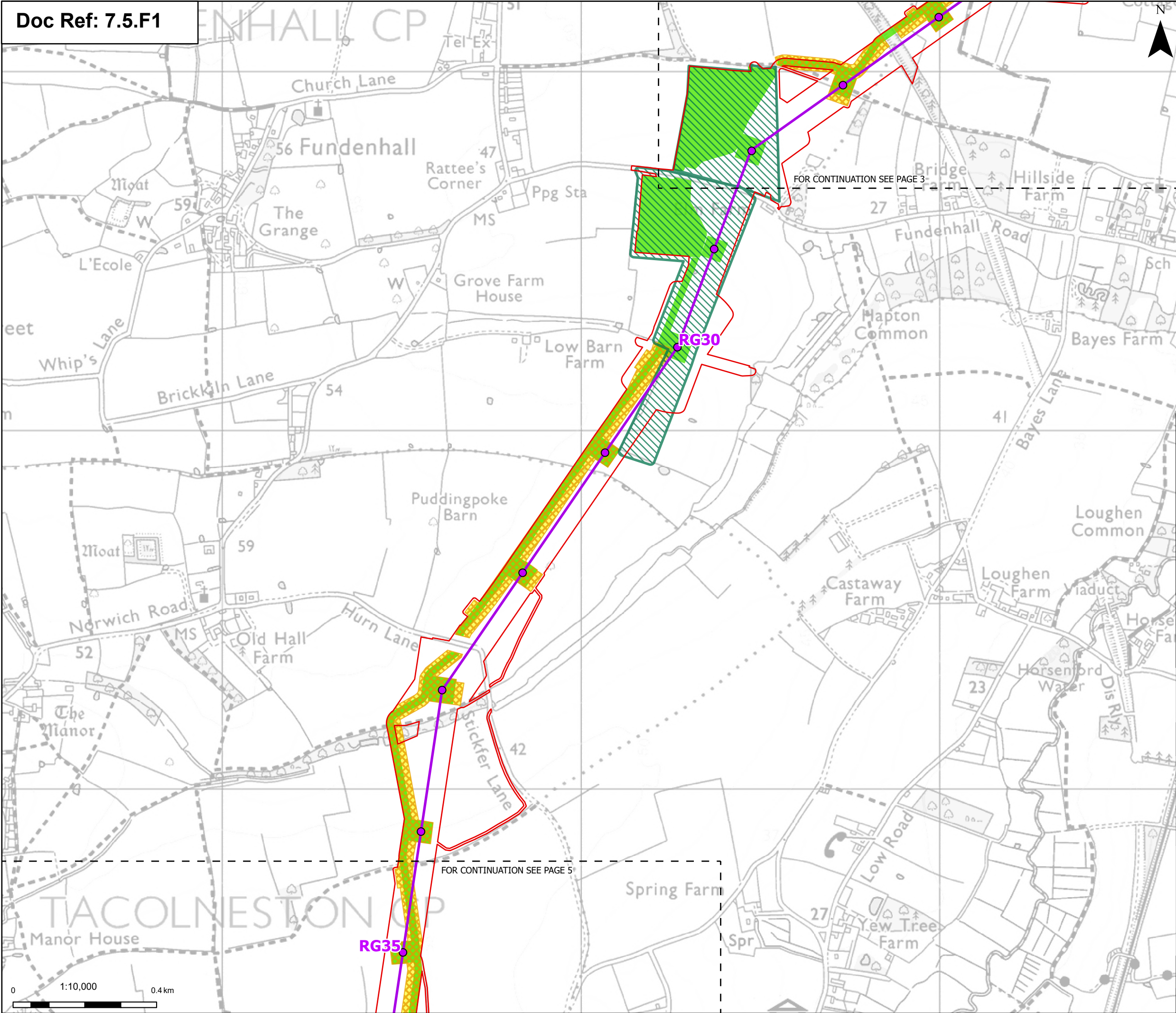
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 1 - Progress of Priority geophysical survey,
Priority archaeological trial trenching and Phase
2 geophysical survey and areas for
Phase 2 archaeological trial trenching
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Designed	P. Weston	Date	July 26
Drawn	N. Banu	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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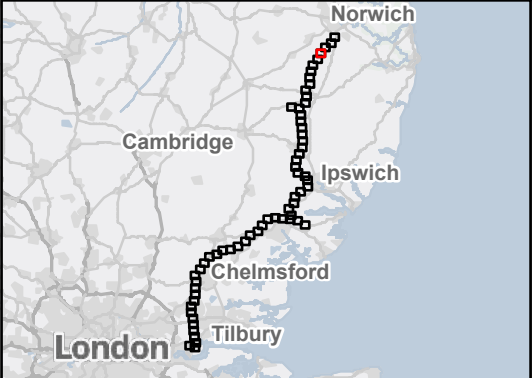
Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EHR-ZZ-DR-ZZ-00911	Revision: C
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	Order limits		Phase 2 Geophysical Survey Areas
	Sheet index cutline		Phase 2 Archaeological Trial Trenching Areas – Not Started
Proposed project design details		Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).	
	Proposed standard lattice pylon location		
	Proposed overhead line alignment		
Discipline specific constraints			
	Priority Geophysical Survey Areas - Completed		
	Phase 2 Geophysical Survey Areas – Completed		

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B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB
Rev	Date	Description	Drawn	Check	Approv

nationalgrid PROJECT:
Norwich to
Tilbury

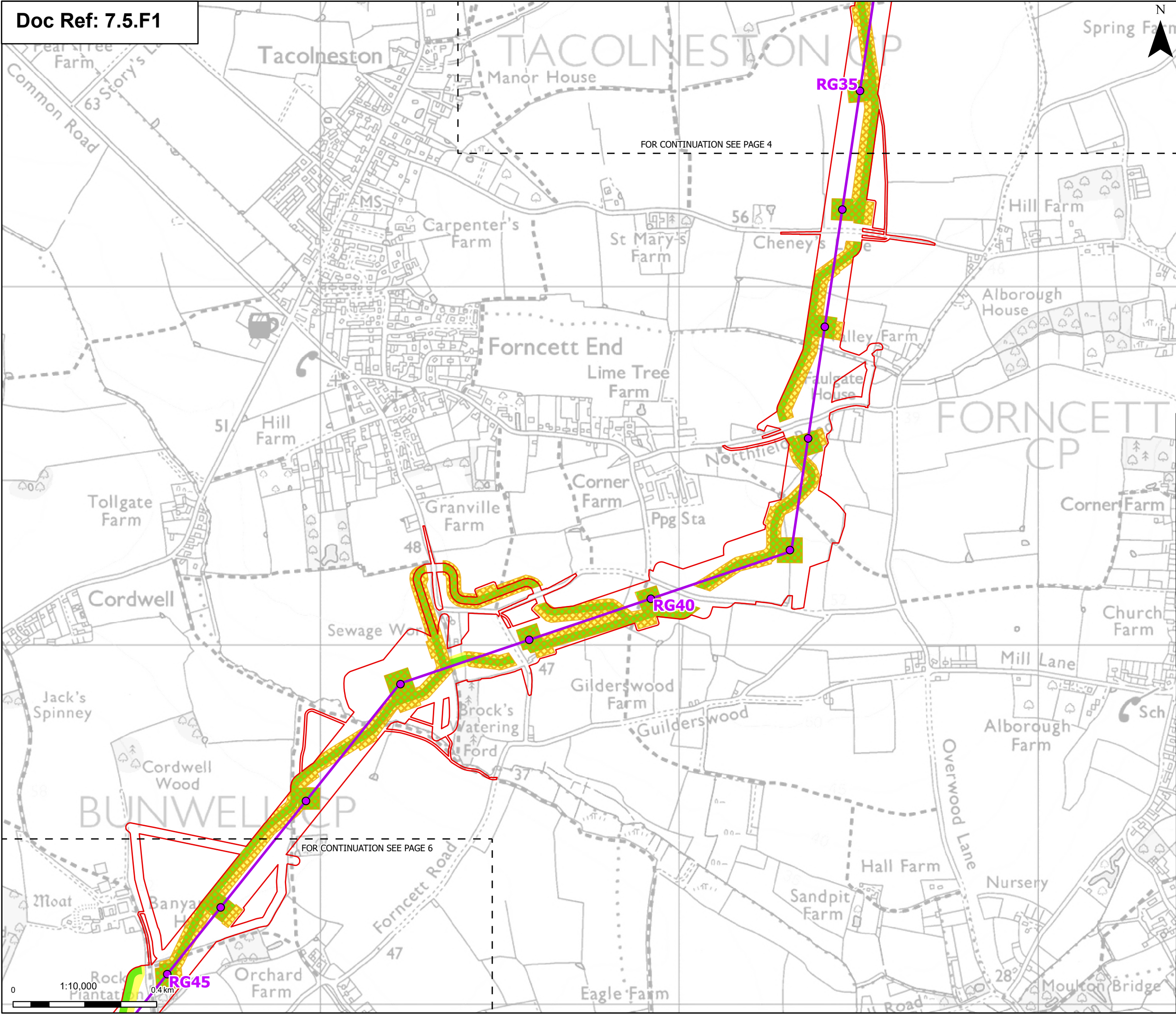
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Regulation 5(2)(a)&(m)

Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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Suitability Code:	A2	Project Number:	10059280

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Order limits

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Proposed standard lattice pylon location

Proposed overhead line alignment

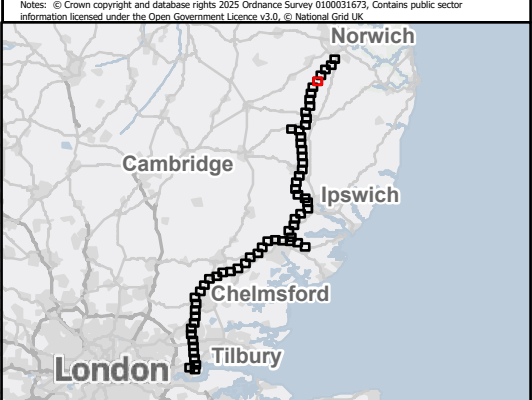
Discipline specific constraints

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:

nationalgrid

Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

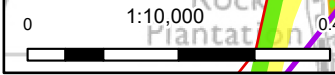
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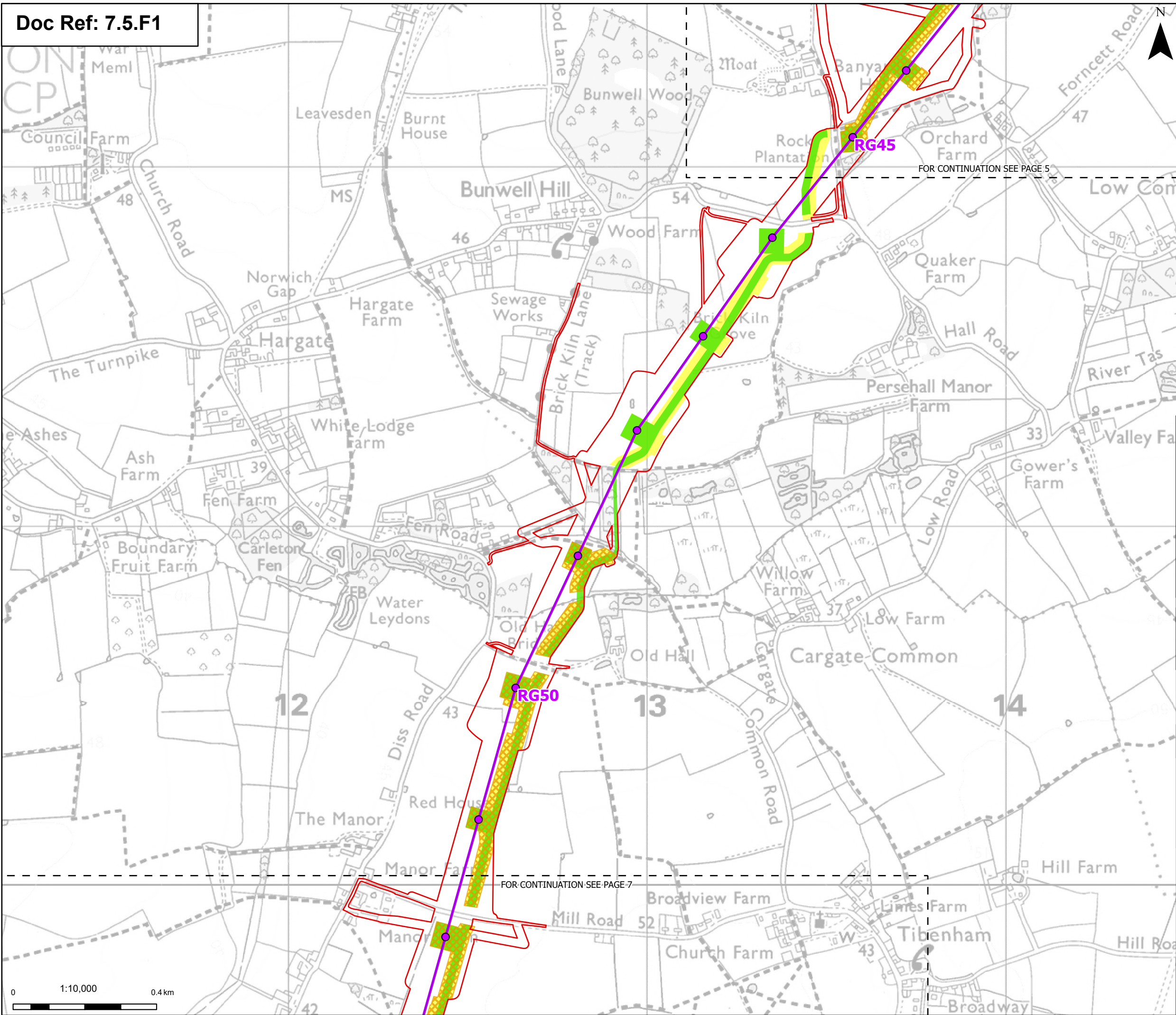
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Revision:
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Sheet index outline

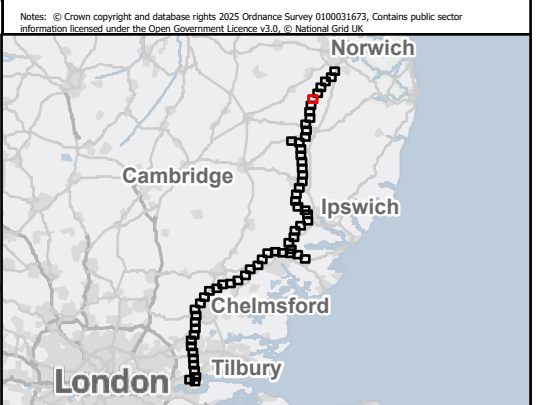
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment

Discipline specific constraints

- Phase 2 Geophysical Survey Areas – Completed
- Phase 2 Geophysical Survey Areas
- Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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nationalgrid Norwich to Tilbury

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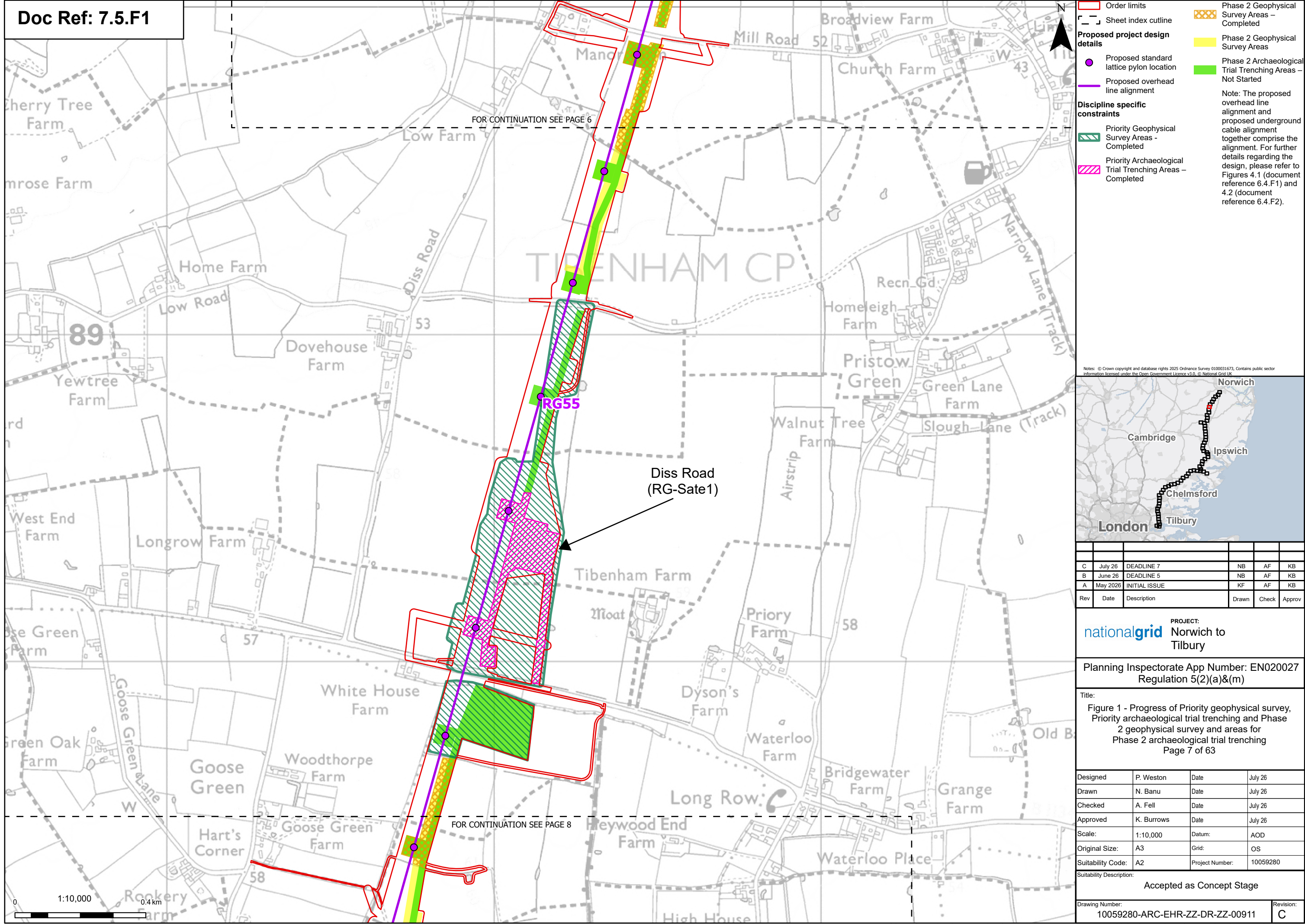
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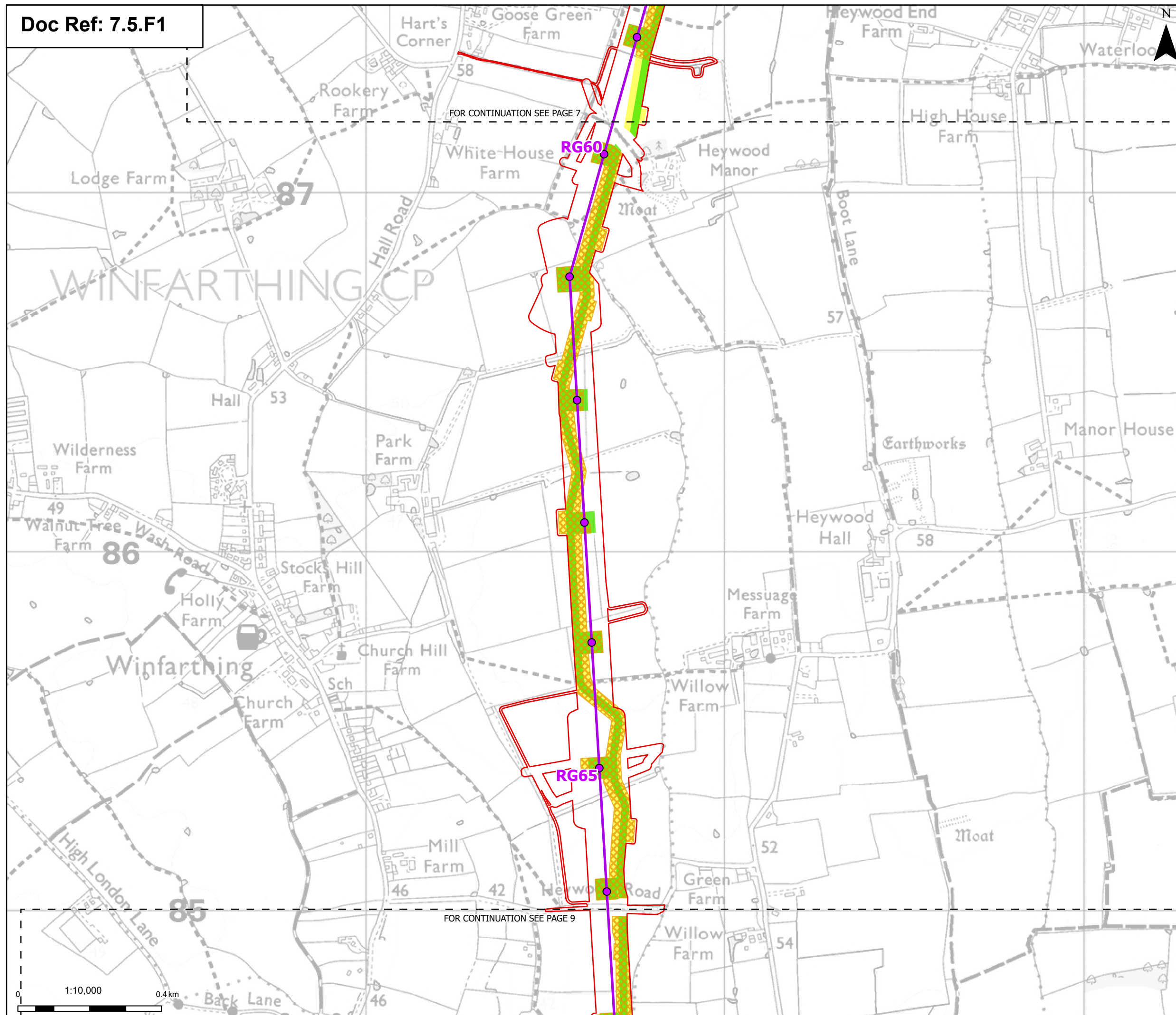
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Suitability Code:	A2	Project Number:	10059280

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Revision:
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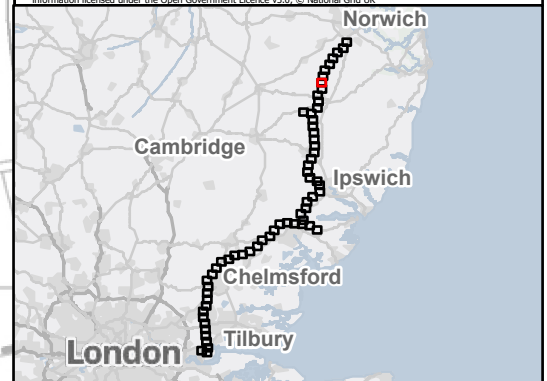
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-  Sheet index outline
- Proposed project design details**
-  Proposed standard lattice pylon location
-  Proposed overhead line alignment

Discipline specific constraints

	Phase 2 Geophysical Survey Areas – Completed
	Phase 2 Geophysical Survey Areas
	Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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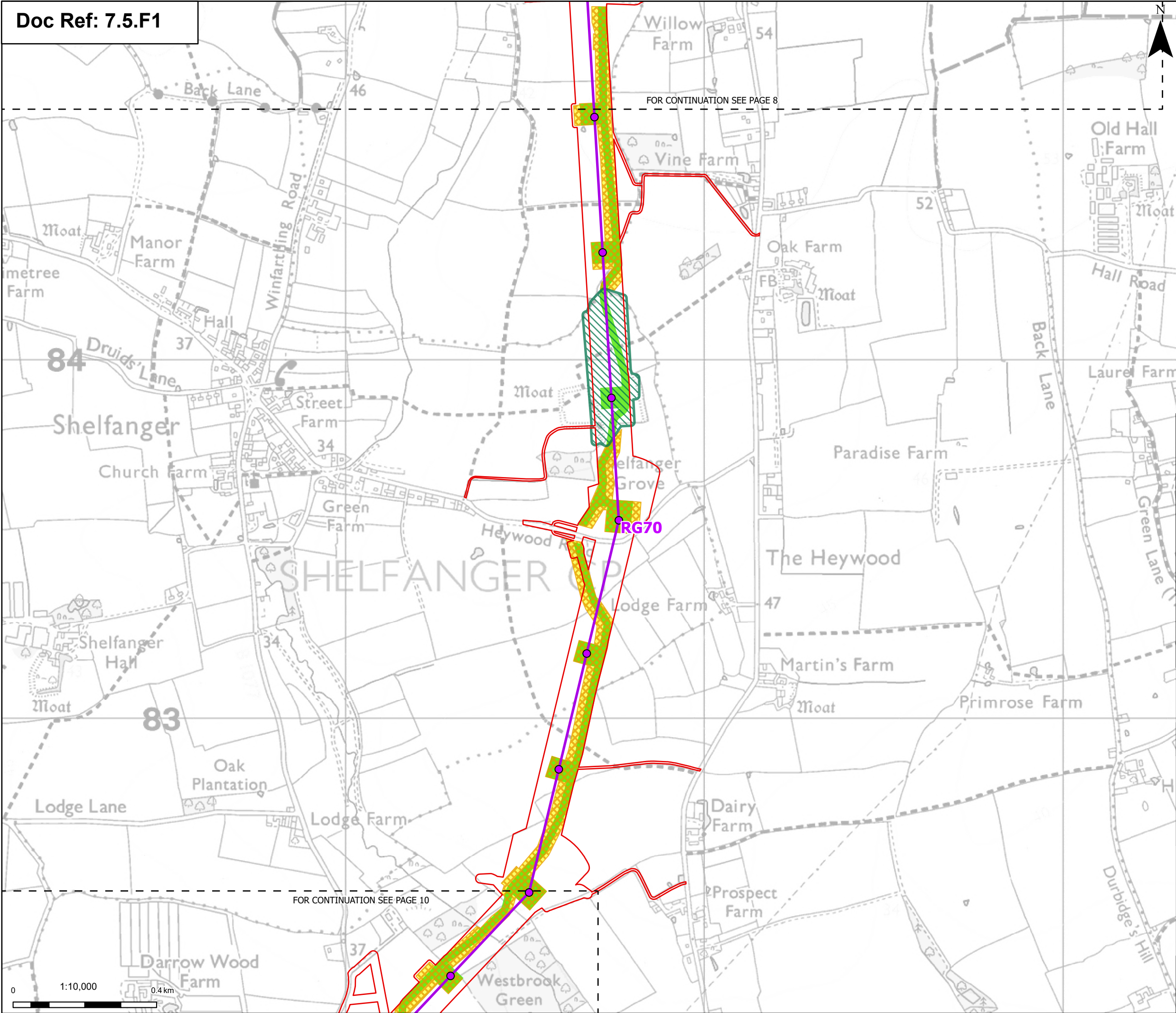
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Figure 1 - Progress of Priority geophysical survey,
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Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

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Order limits

Sheet index outline

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid Norwich to Tilbury

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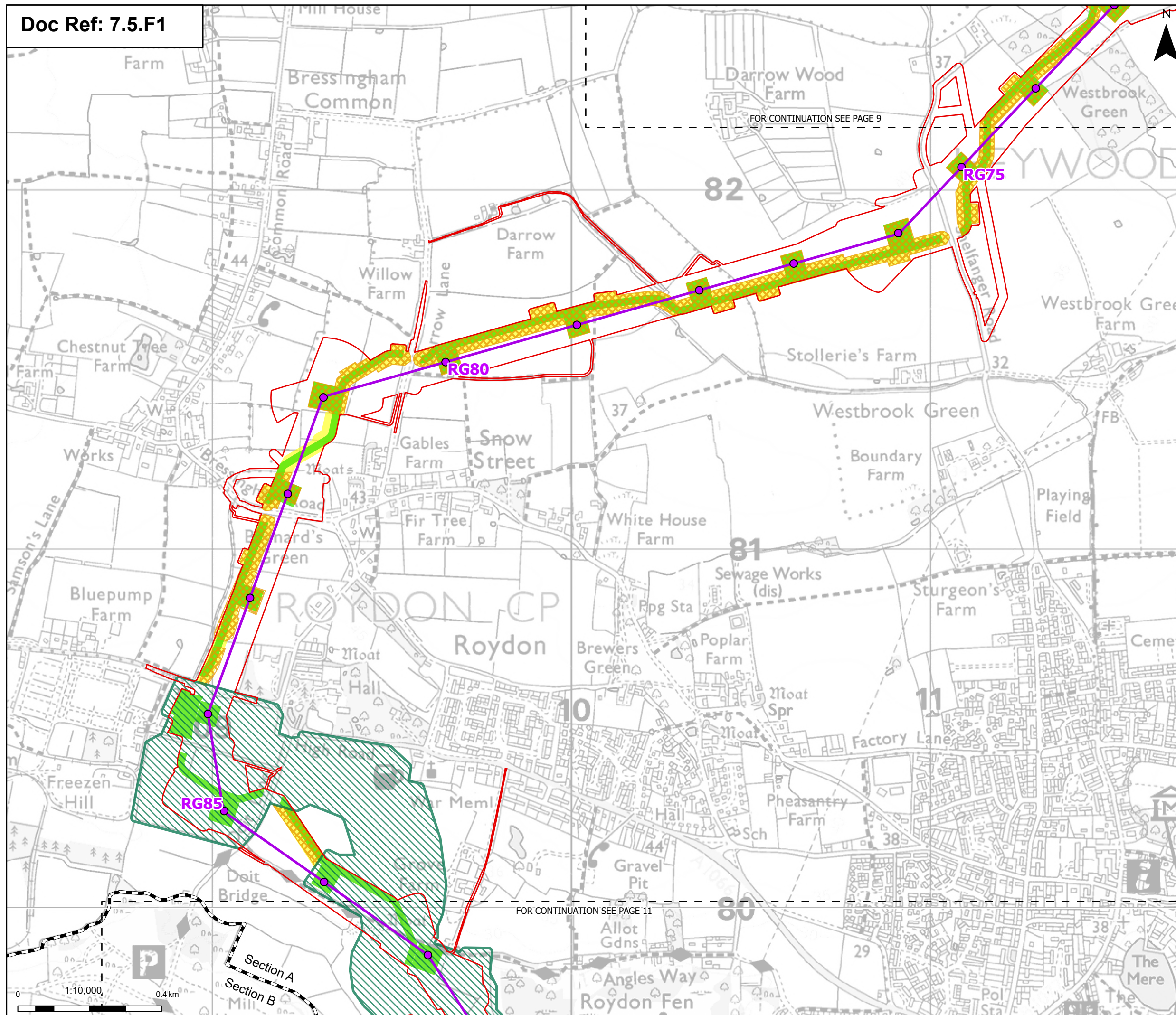
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Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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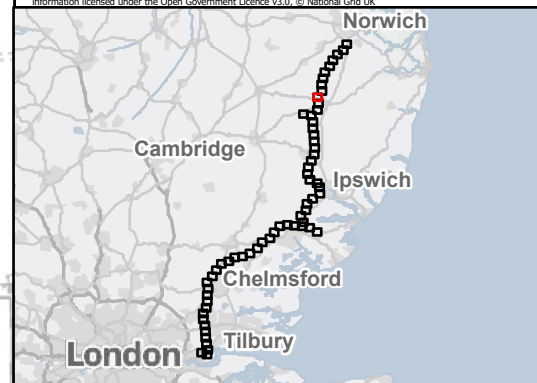
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	Order limits		Phase 2 Geophysical Survey Areas
	Sheet index cutline		Phase 2 Archaeological Trial Trenching Areas – Not Started
	Project section line		
Proposed project design details			
	Proposed standard lattice pylon location	Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).	
	Proposed overhead line alignment		
Discipline specific constraints			
	Priority Geophysical Survey Areas - Completed		
	Phase 2 Geophysical Survey Areas – Completed		

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Norwich to
Tilbury

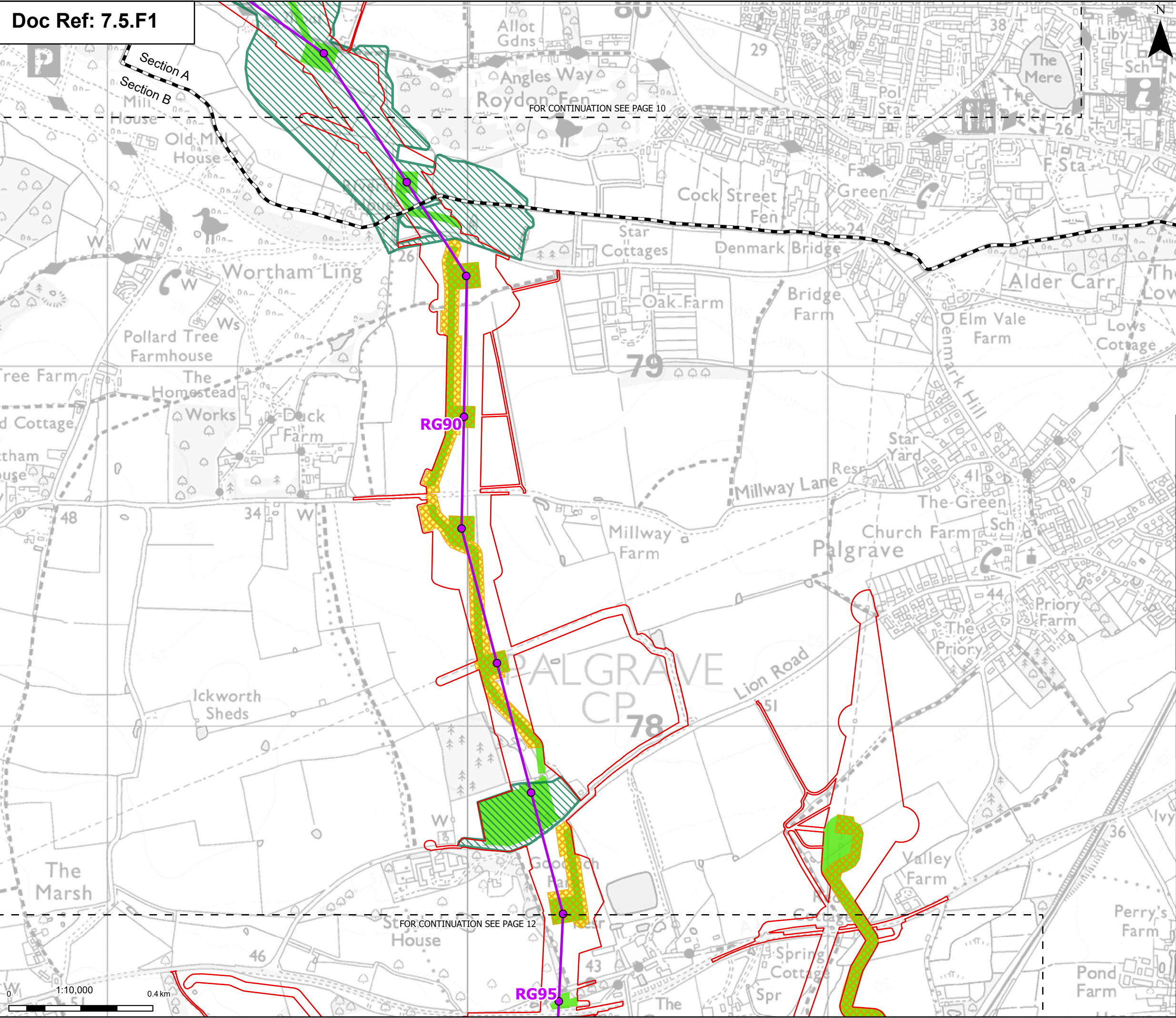
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Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

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Order limits

Sheet index outline

Project section line

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas – Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

An inset map showing the project location within the East of England region. The map highlights the proposed alignment from London to Tilbury, passing through Chelmsford, Ipswich, and Norwich. Major cities like Cambridge and London are also marked.

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PROJECT:
nationalgrid Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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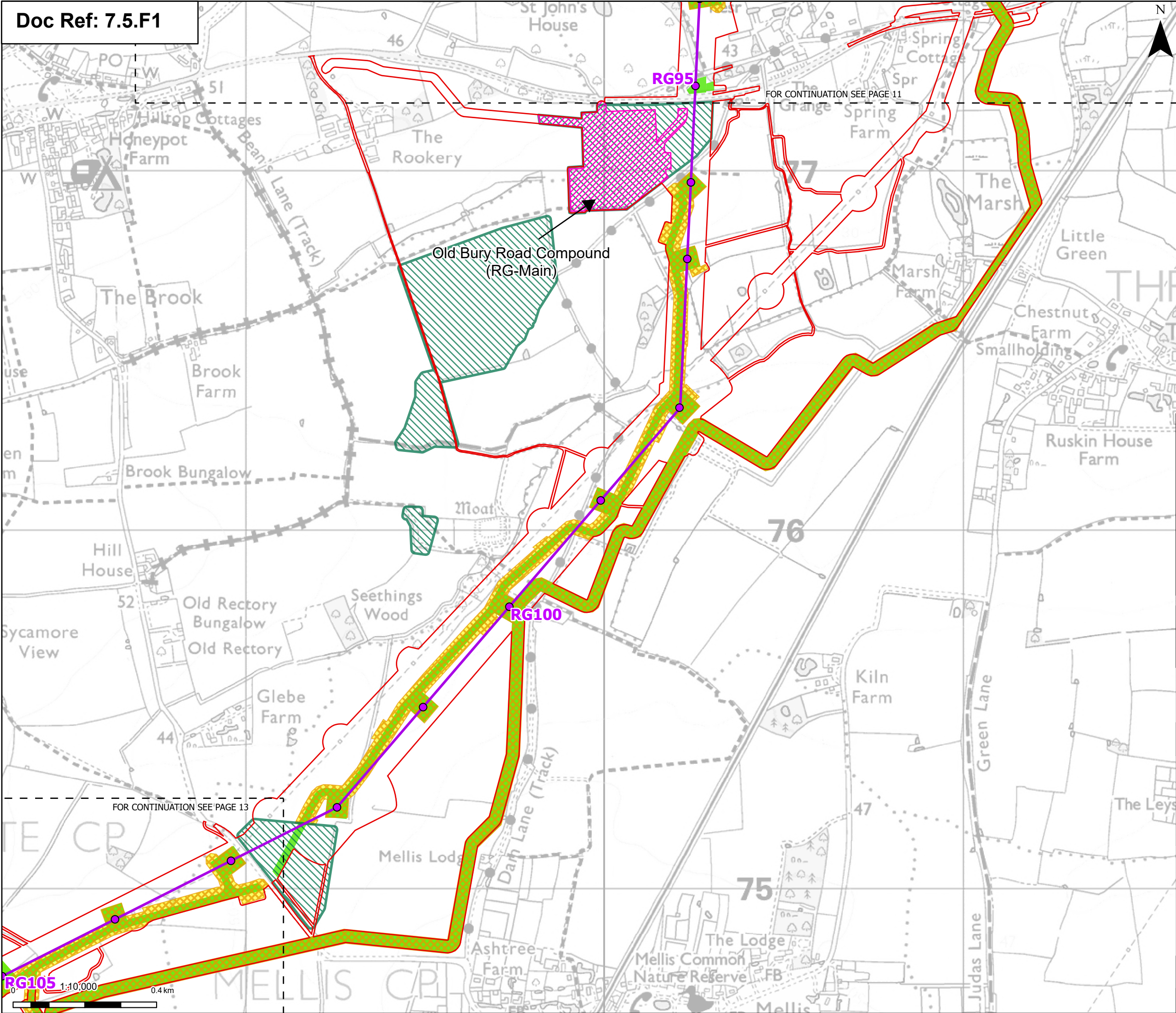
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Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Approved	K. Burrows	Date	July 26
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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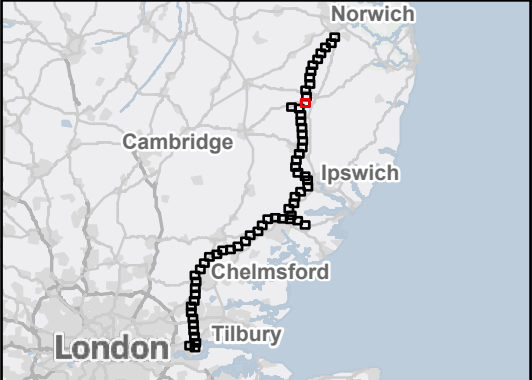
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|  | Order limits |  | Phase 2 Geophysical Survey Areas – Completed |
|  | Sheet index cutline |  | Phase 2 Geophysical Survey Areas |
| Proposed project design details | |  | Phase 2 Archaeological Trial Trenching Areas – Not Started |
|  | Proposed standard lattice pylon location | Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2). | |
|  | Proposed overhead line alignment | | |
| Discipline specific constraints | | | |
|  | Priority Geophysical Survey Areas - Completed | | |
|  | Priority Archaeological Trial Trenching Areas – Completed | | |

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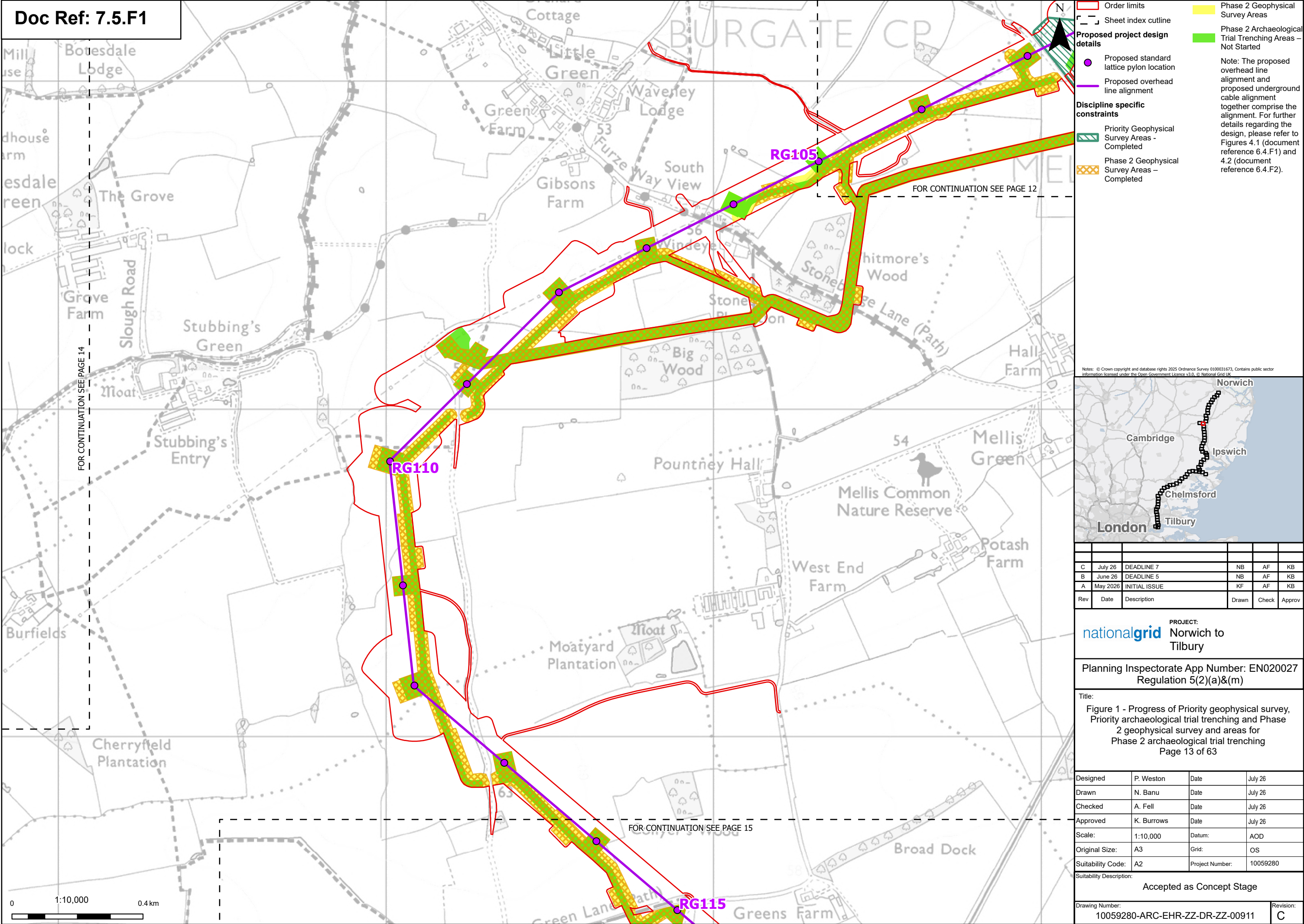
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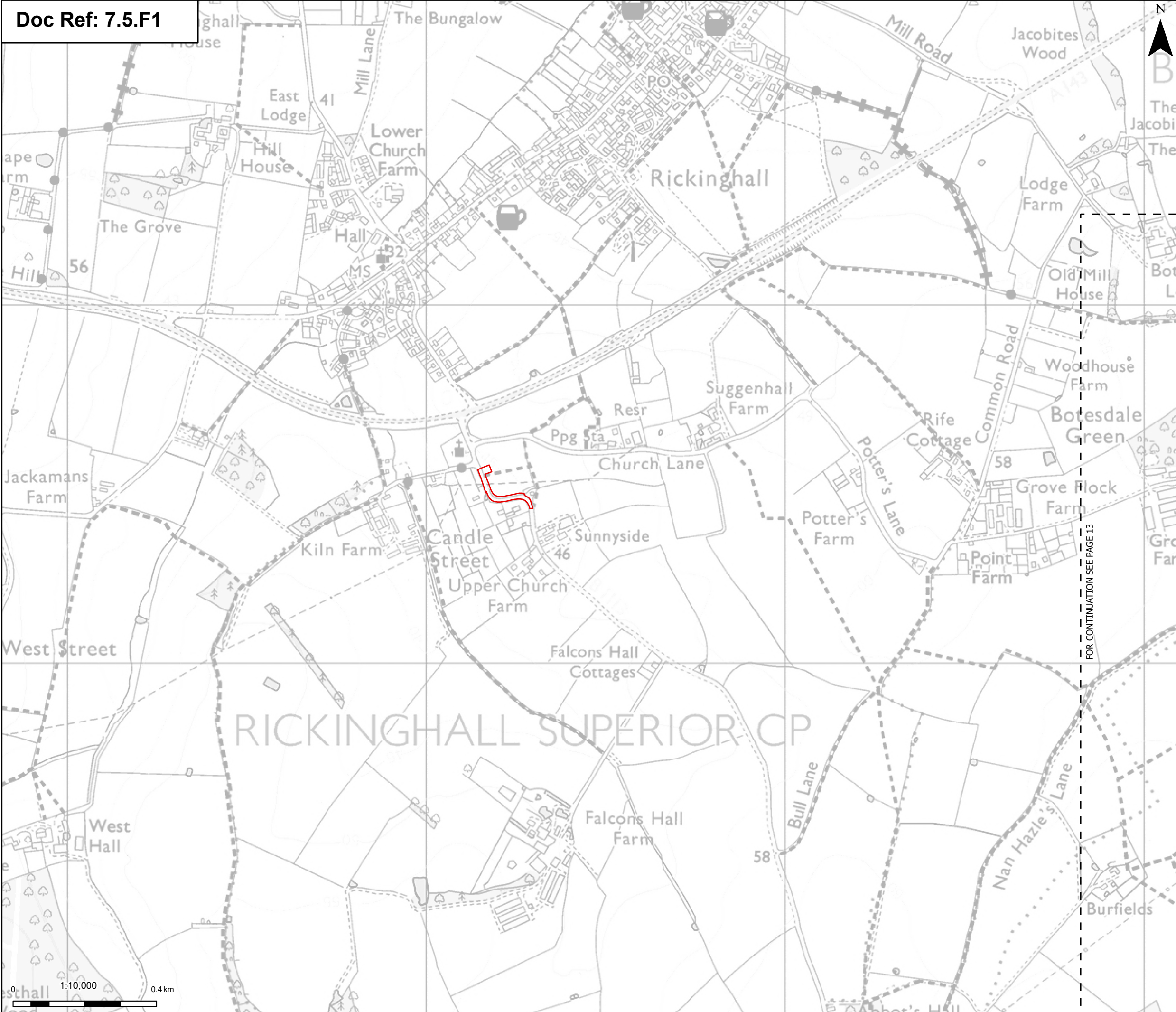
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Suitability Code:	A2	Project Number:	10059280

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Sheet index outline

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London, Cambridge, Ipswich, Norwich, Chelmsford, Tilbury

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Title:

Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching

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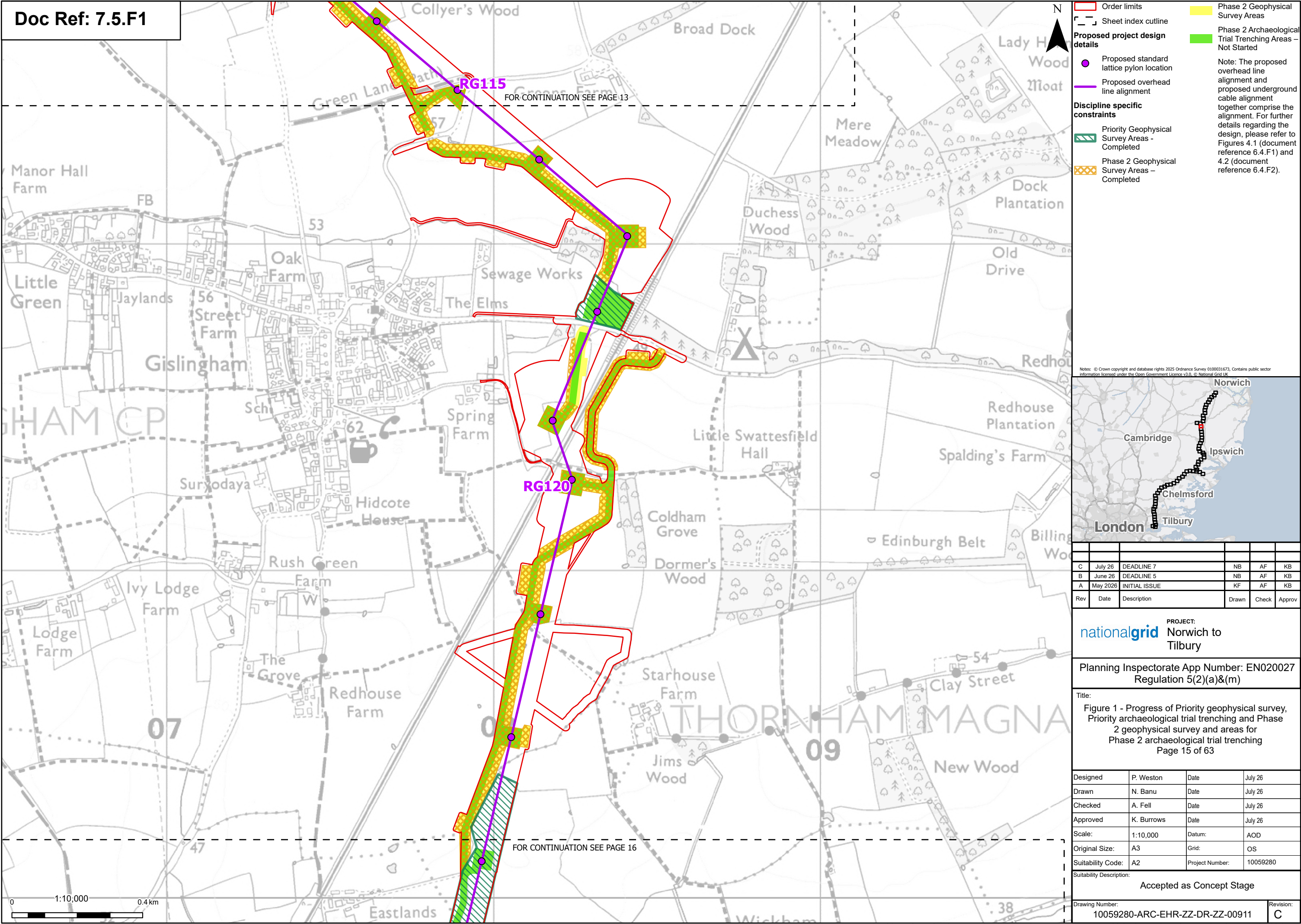
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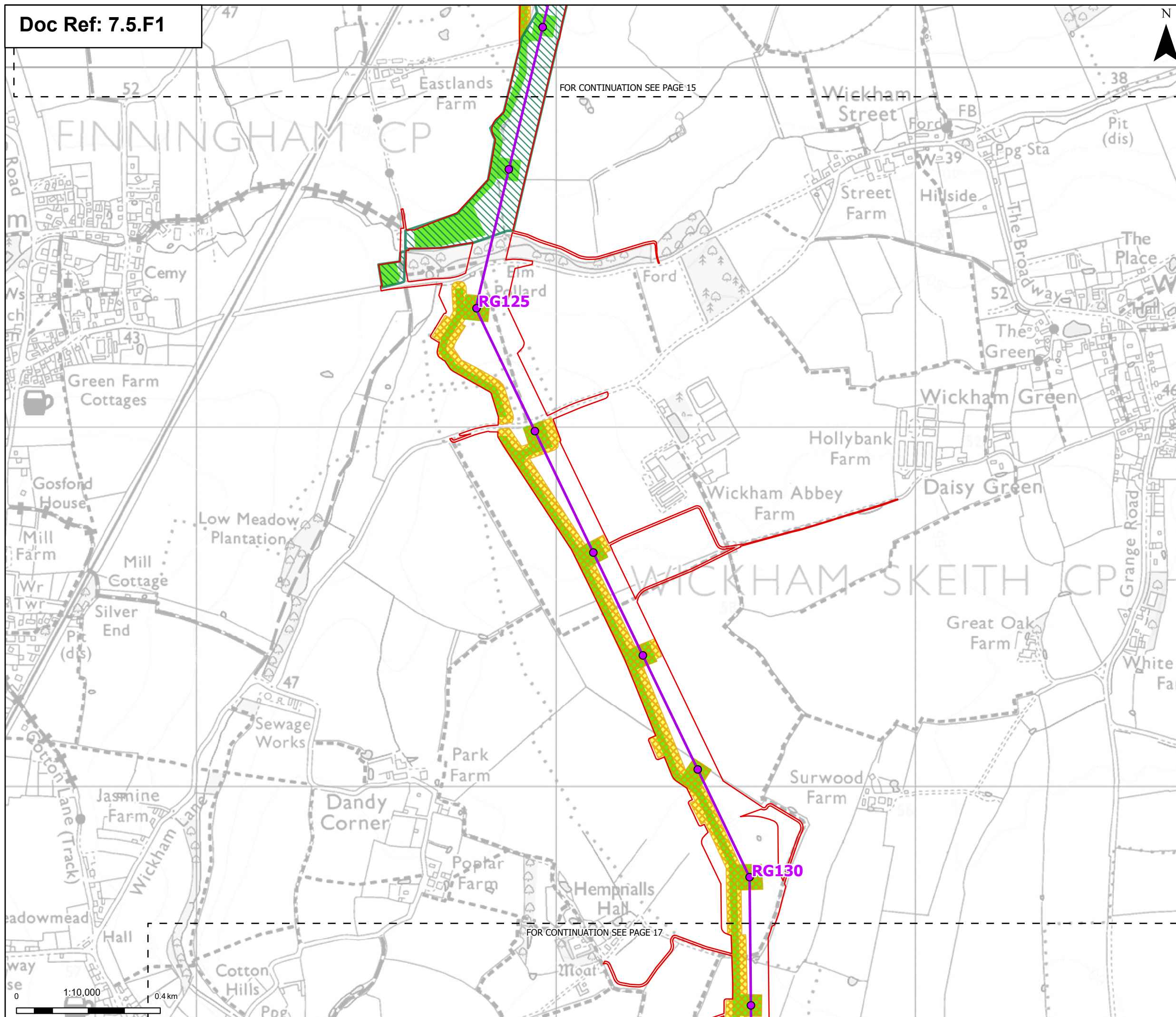
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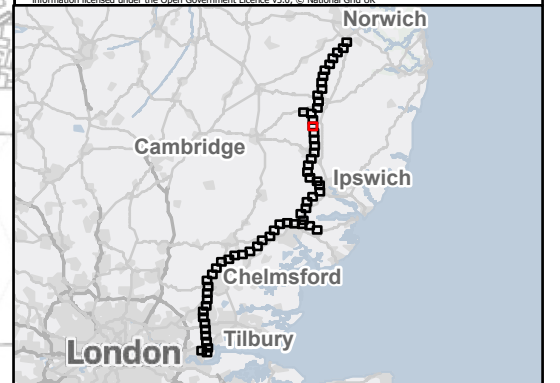
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	Sheet index outline		Phase 2 Archaeological Trial Trenching Areas – Not Started
Proposed project design details		Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).	
	Proposed standard lattice pylon location		
	Proposed overhead line alignment		
Discipline specific constraints			
	Priority Geophysical Survey Areas - Completed		
	Phase 2 Geophysical Survey Areas – Completed		

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Sheet index outline

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid

PROJECT:
Norwich to
Tilbury

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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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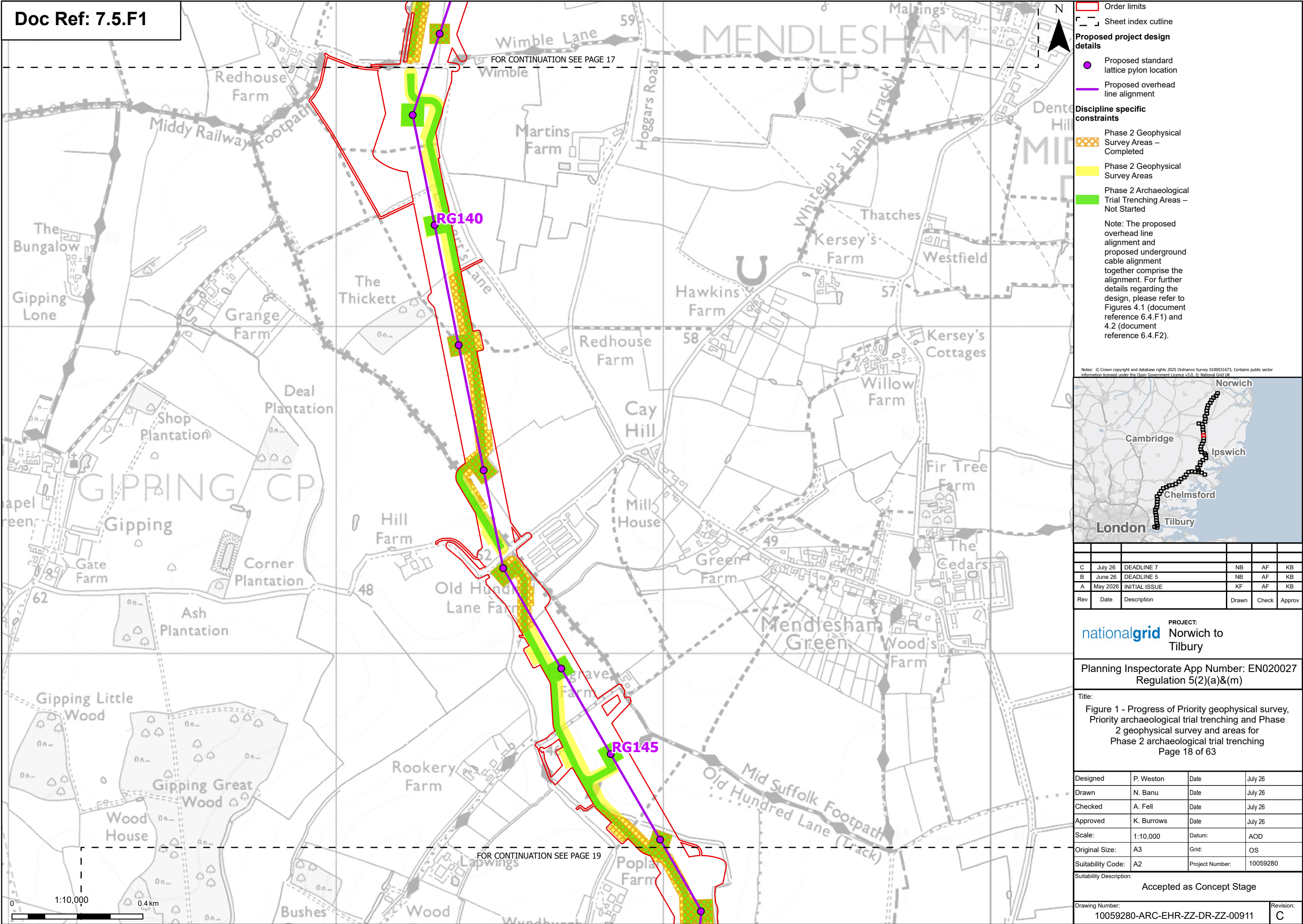
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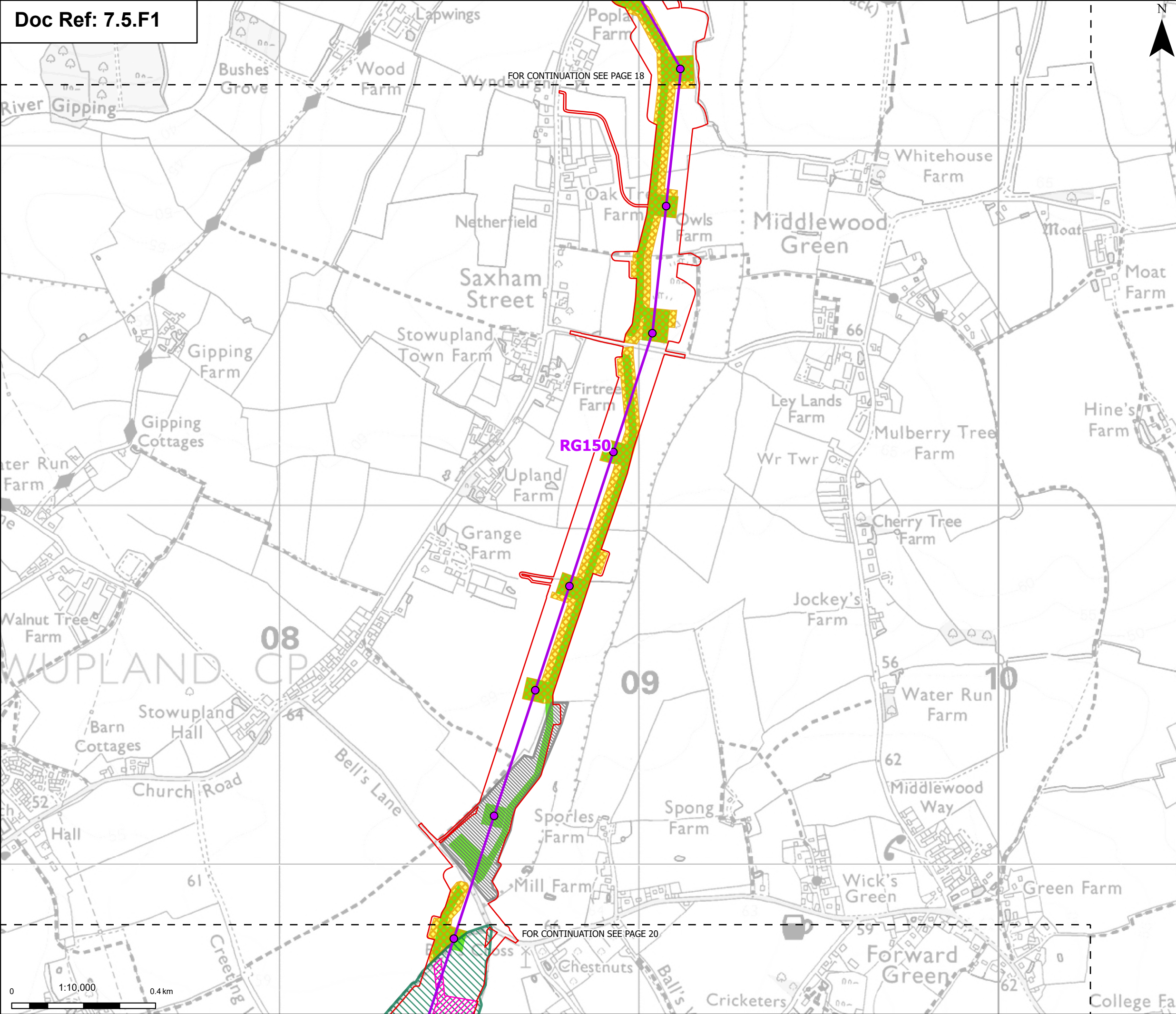
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Order limits

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Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

Priority Archaeological Trial Trenching Areas - Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Map of the region showing the project location from London to Norwich.

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Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching Page 19 of 63

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Suitability Description: Accepted as Concept Stage

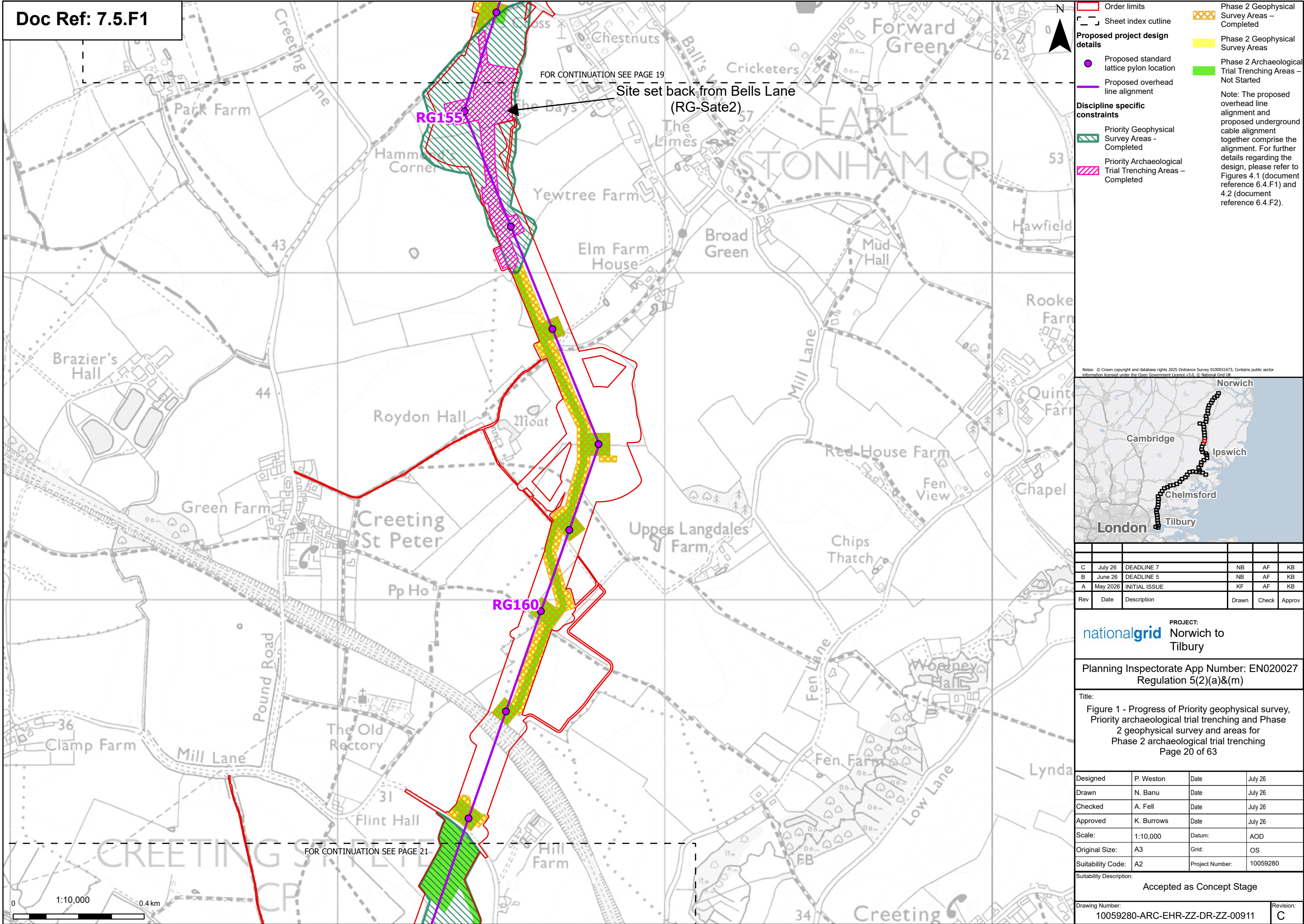
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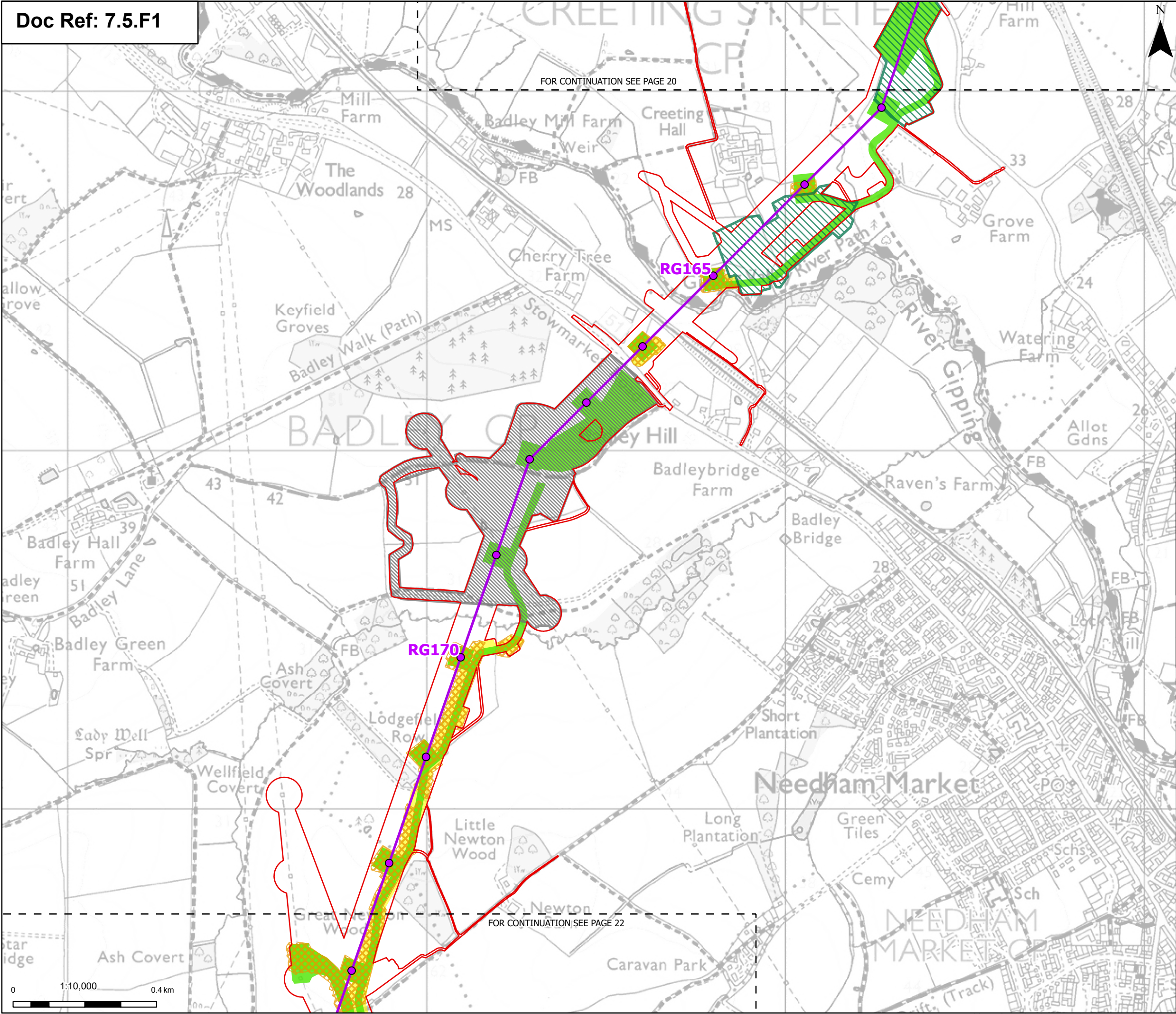
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Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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An inset map shows the project location within the East of England. A black line indicates the proposed route from London in the south to Norwich in the north. Key locations marked include London, Chelmsford, Ipswich, Cambridge, and Norwich. The project area is highlighted with a red dot near Ipswich.

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B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

nationalgrid

PROJECT:

Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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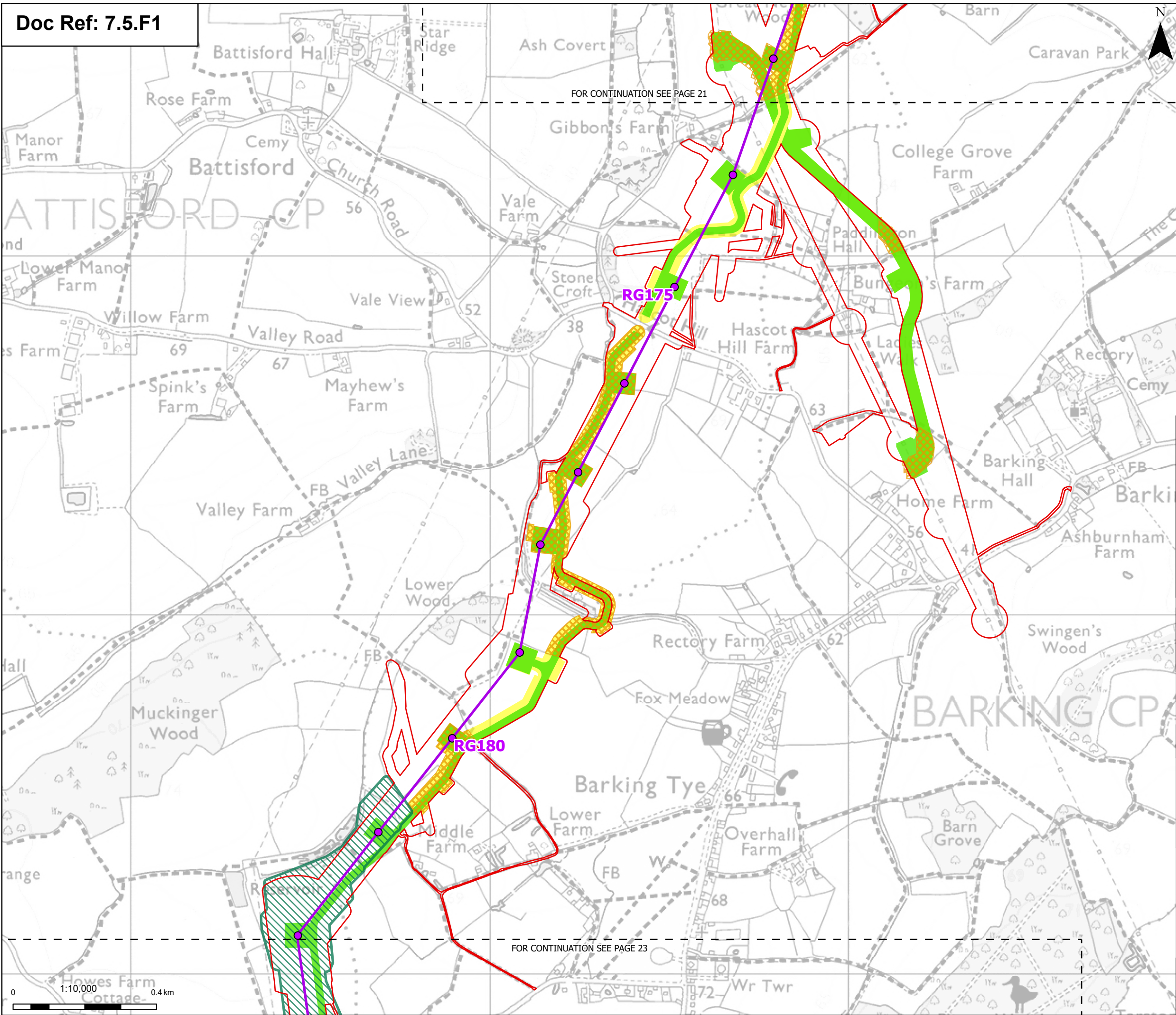
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Drawn	N. Banu	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EHR-ZZ-DR-ZZ-00911	Revision: C
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Proposed project design details

Discipline specific constraints

Proposed standard lattice pylon location

Proposed overhead line alignment

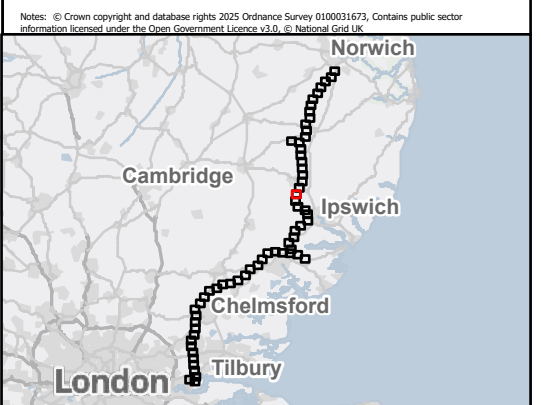
Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:
nationalgrid Norwich to Tilbury

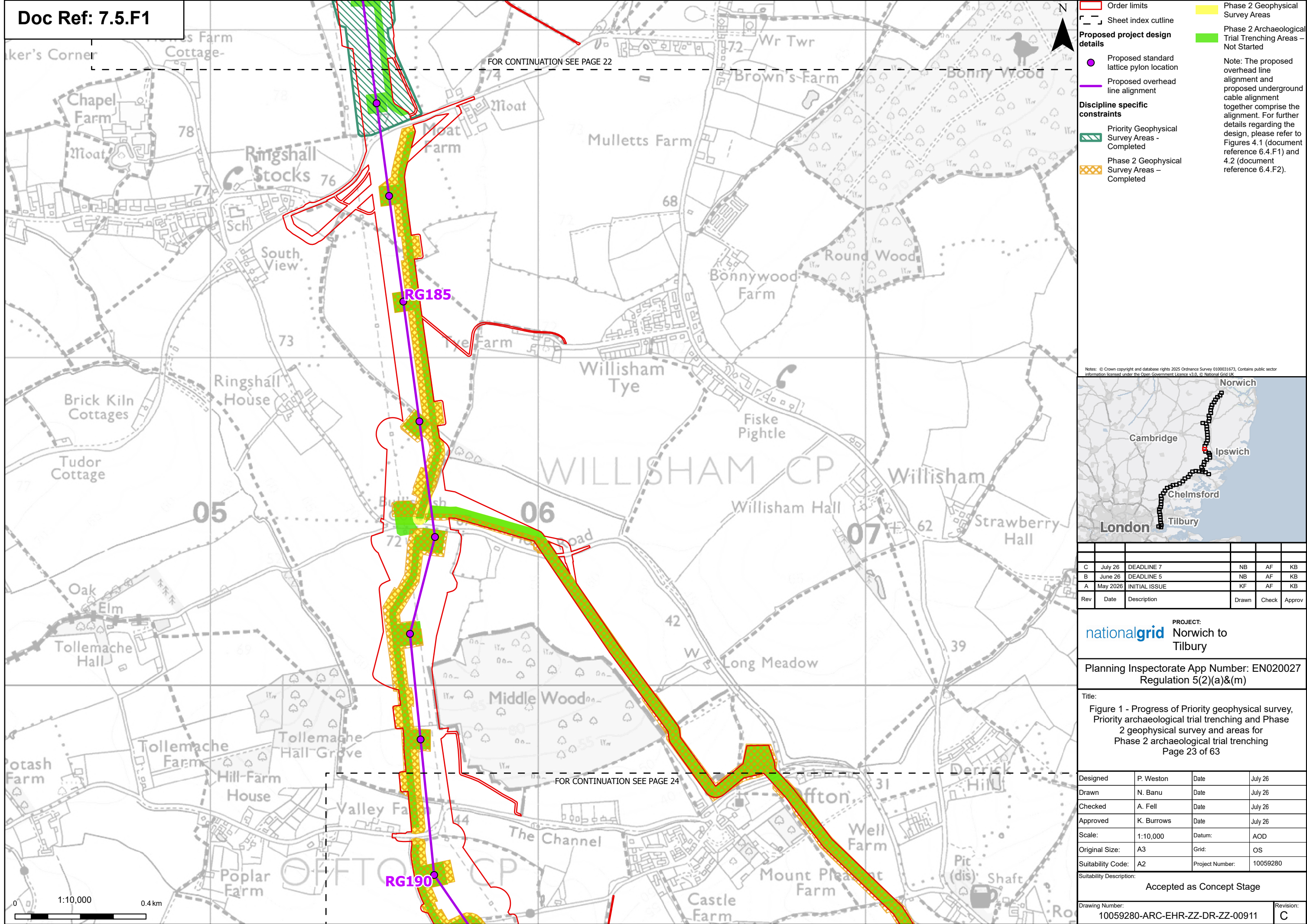
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Regulation 5(2)(a)&(m)

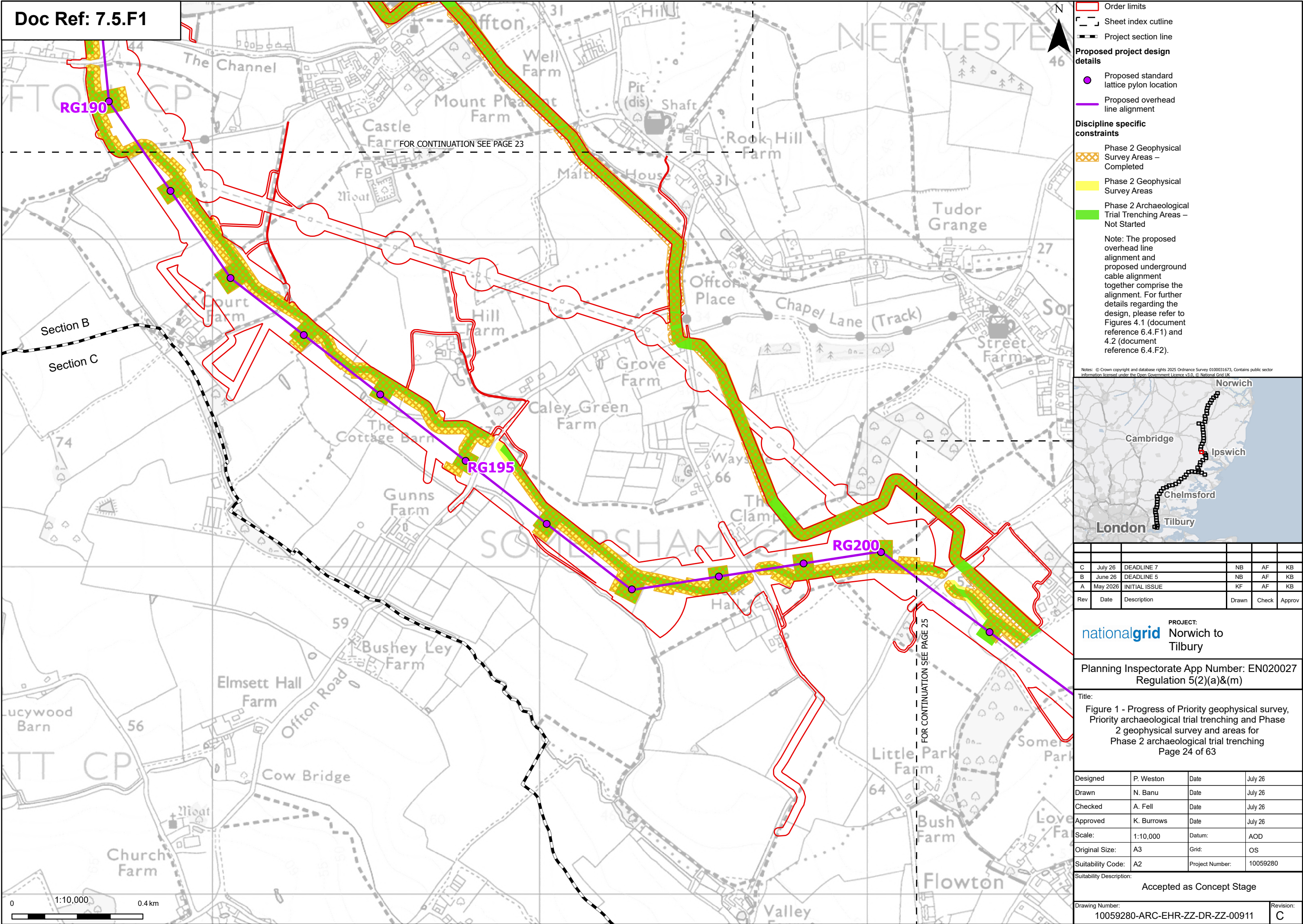
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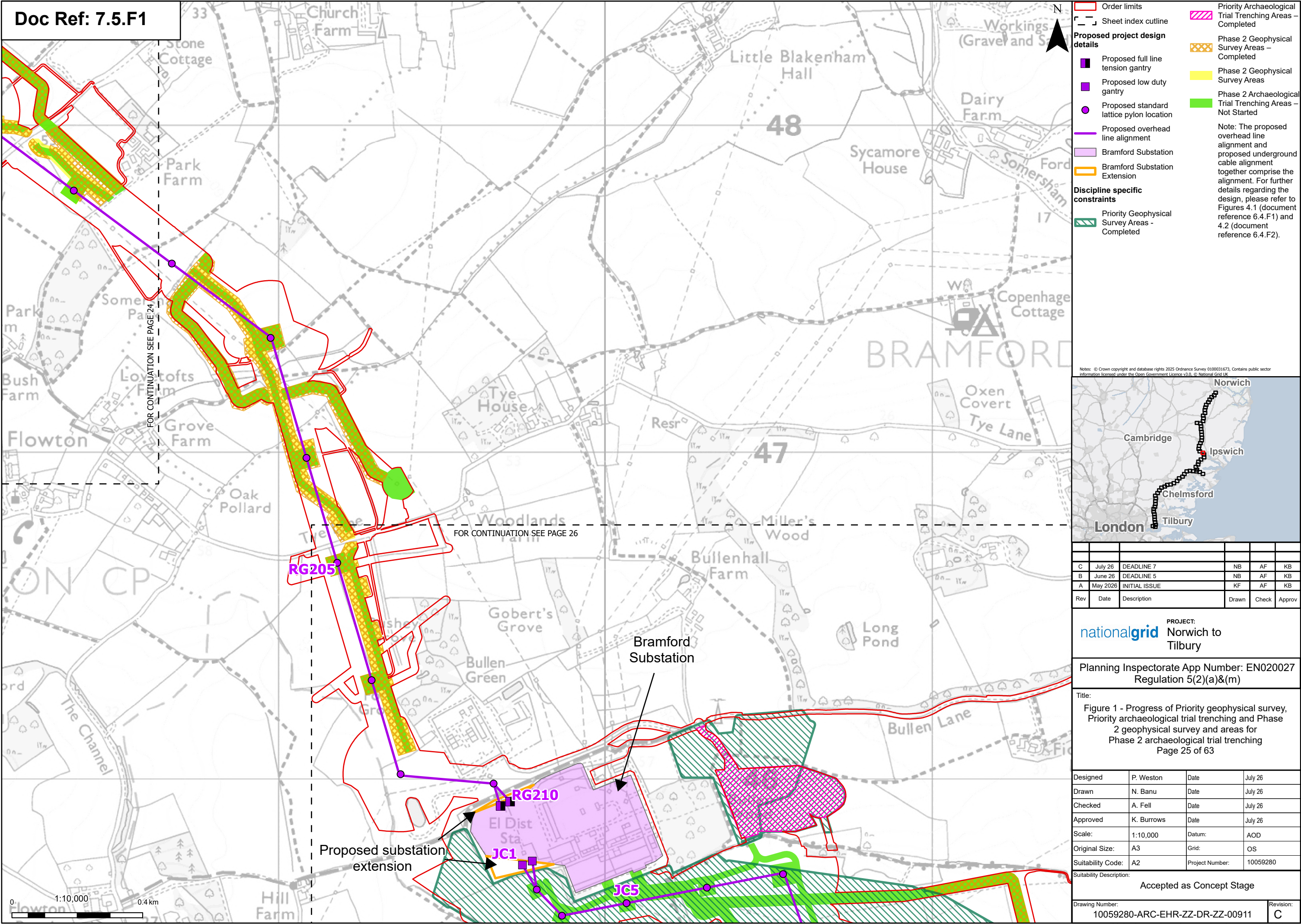
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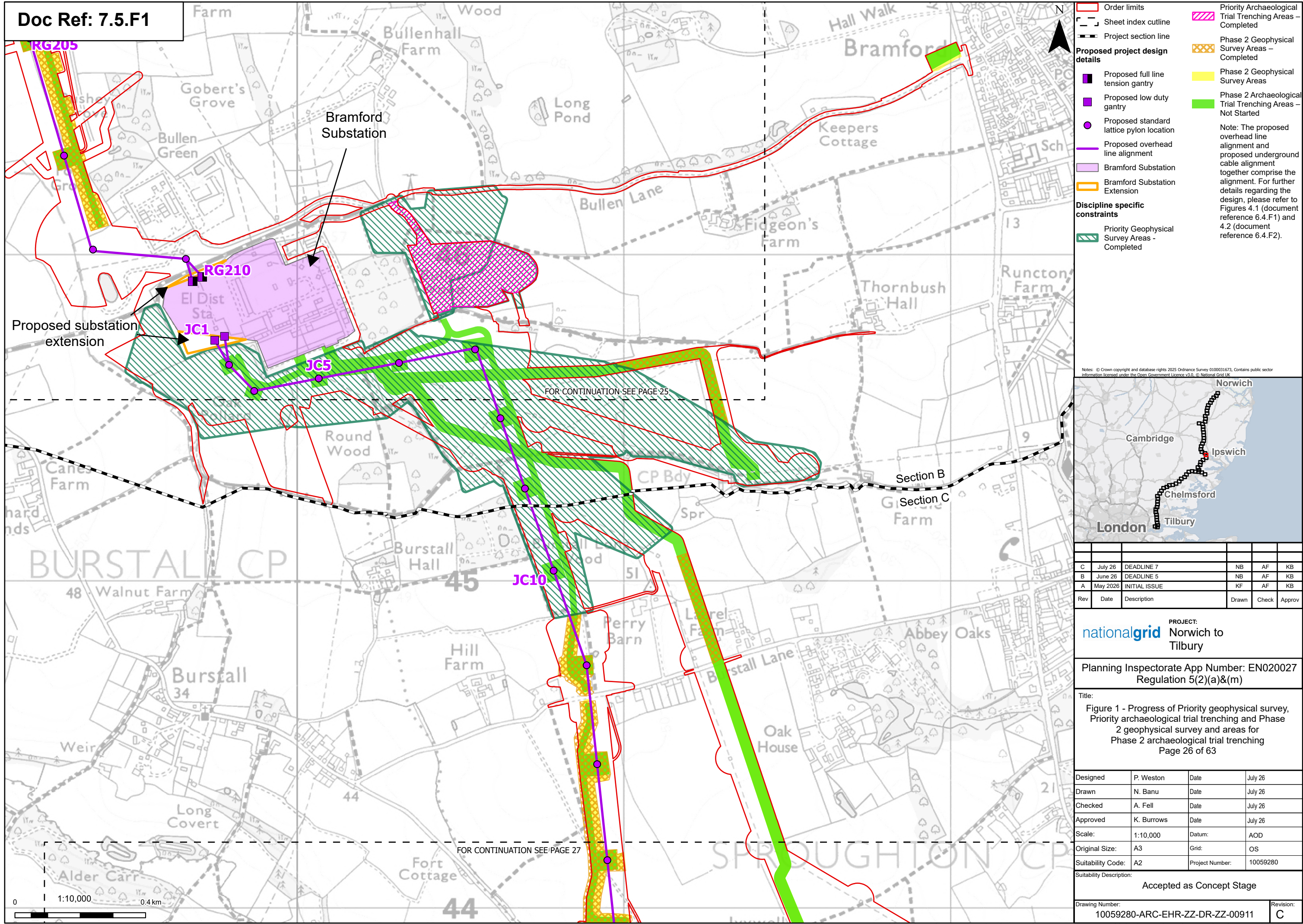
Suitability Description:
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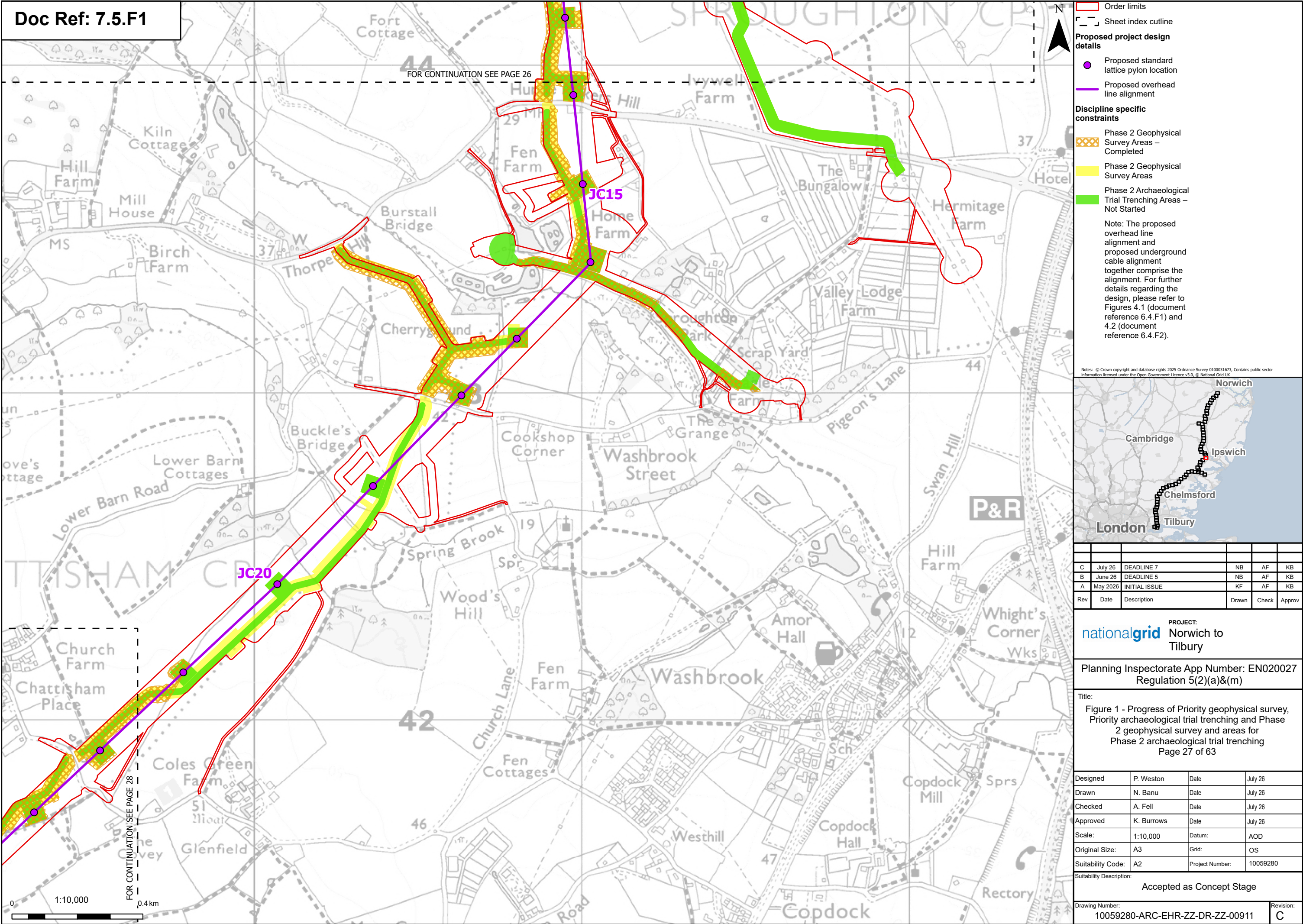
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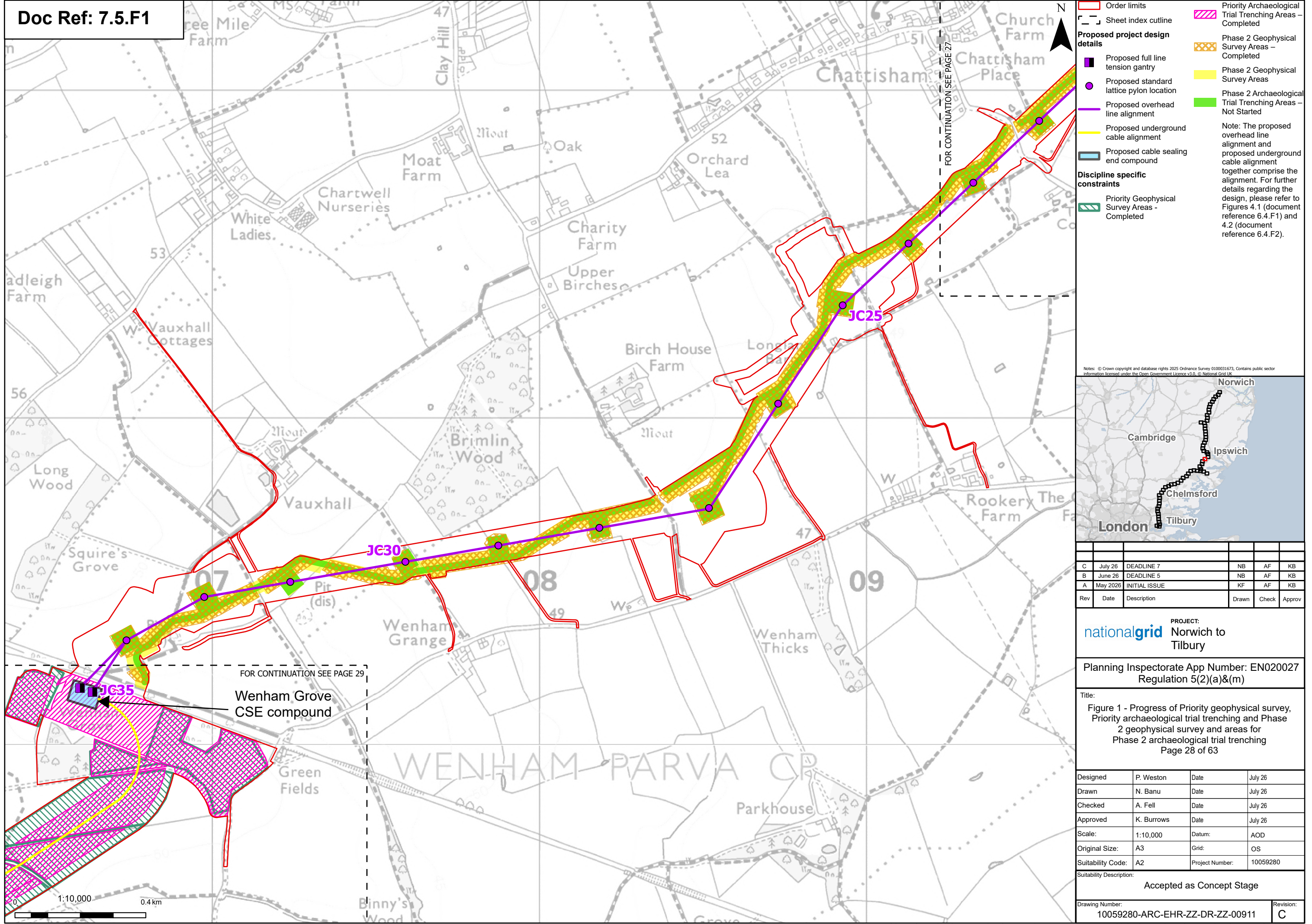


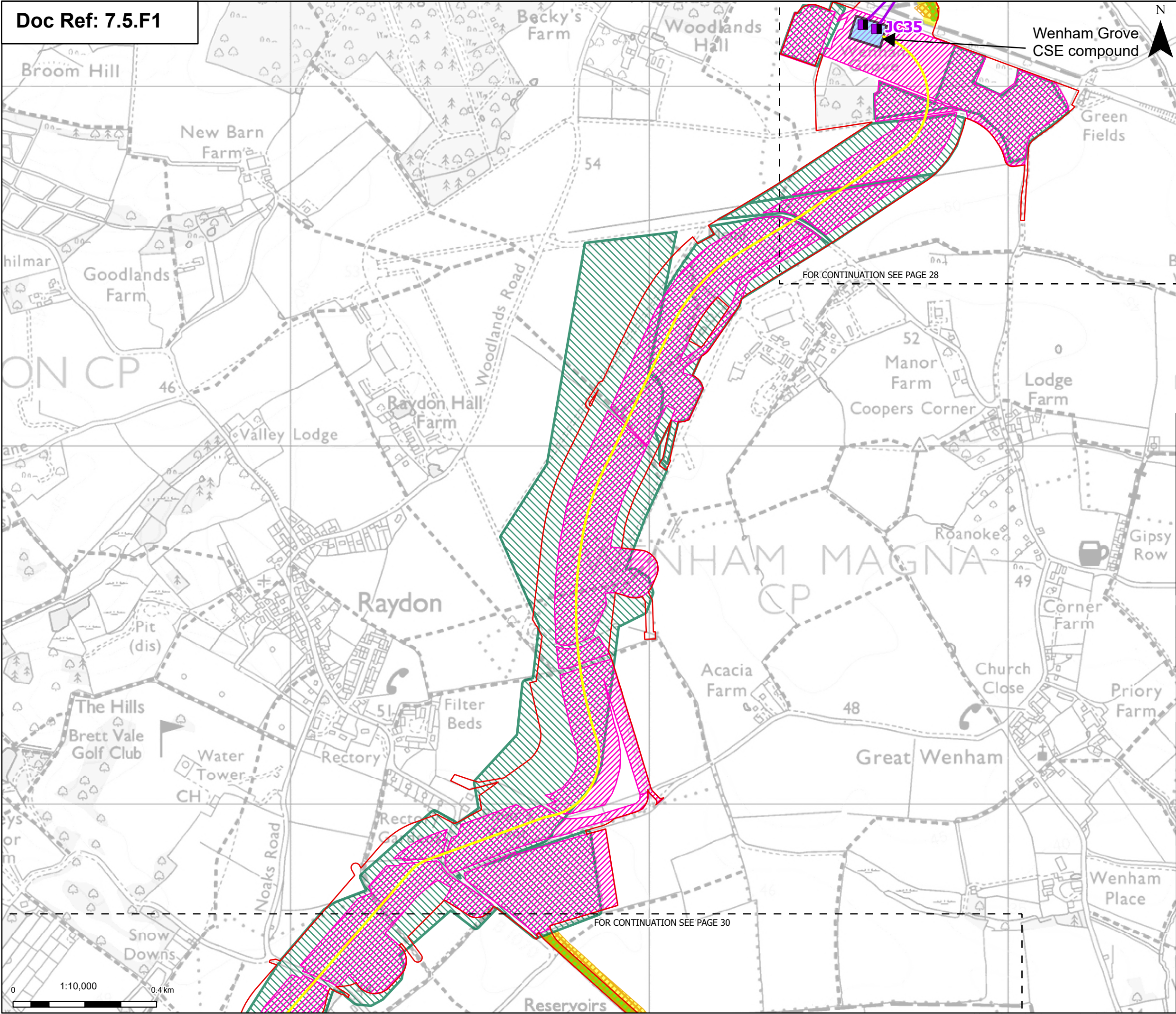












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Proposed full line tension gantry

Proposed overhead line alignment

Proposed underground cable alignment

Proposed cable sealing end compound

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas – Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid

PROJECT:
Norwich to
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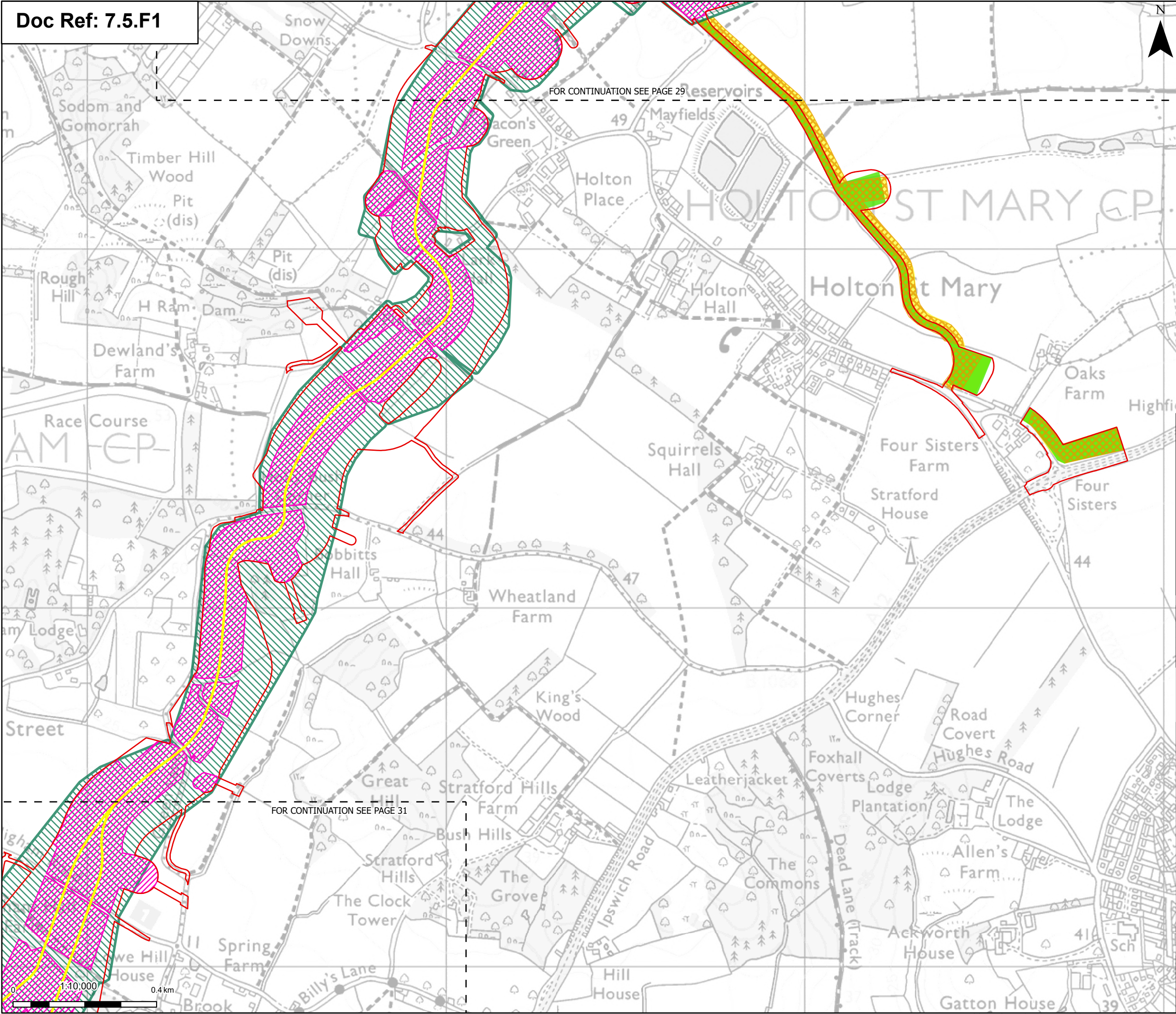
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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Proposed underground cable alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas – Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Title:

Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching

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Suitability Code:	A2	Project Number:	10059280

Suitability Description:

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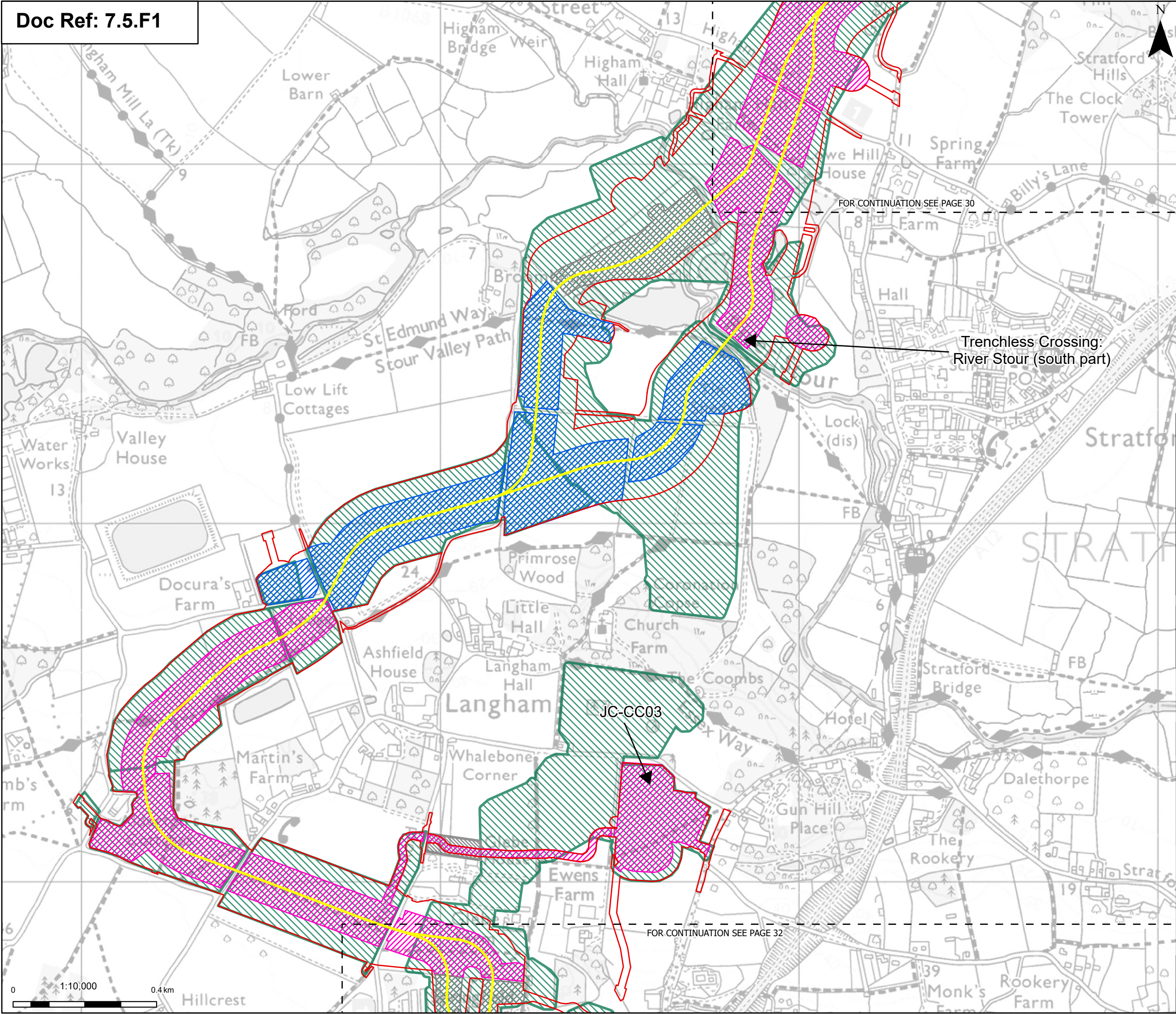
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Proposed underground cable alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

Priority Archaeological Trial Trenching Areas - Completed

Priority Archaeological Trial Trenching Areas - Fieldwork Completed

Priority Archaeological Trial Trenching Areas - Not Completed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:

Norwich to Tilbury

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Title:
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Project section line

Proposed underground cable alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas - Completed

Priority Archaeological Trial Trenching Areas - Not Completed

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Norwich

Cambridge

Ipswich

Chelmsford

Tilbury

London

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Title:
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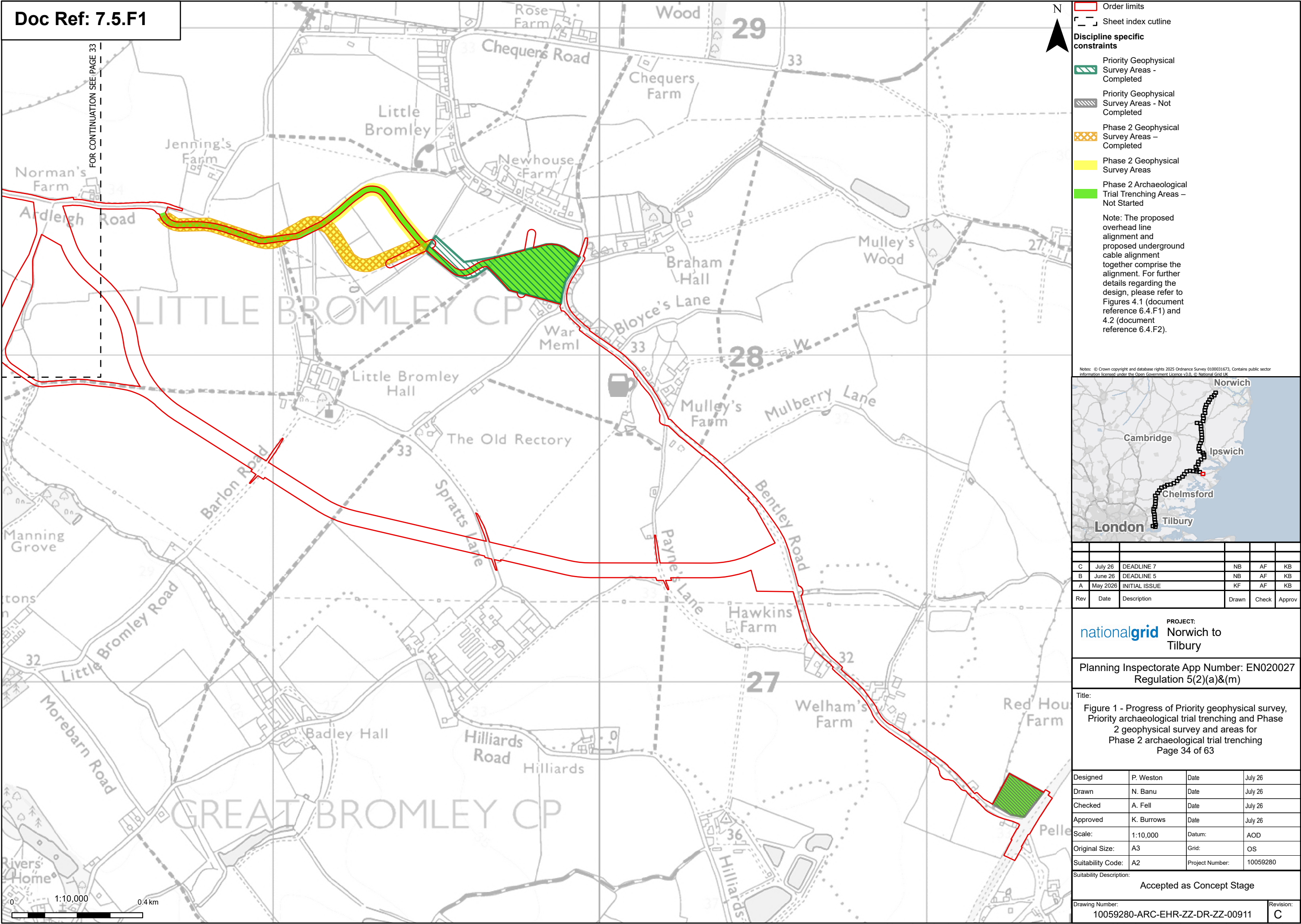
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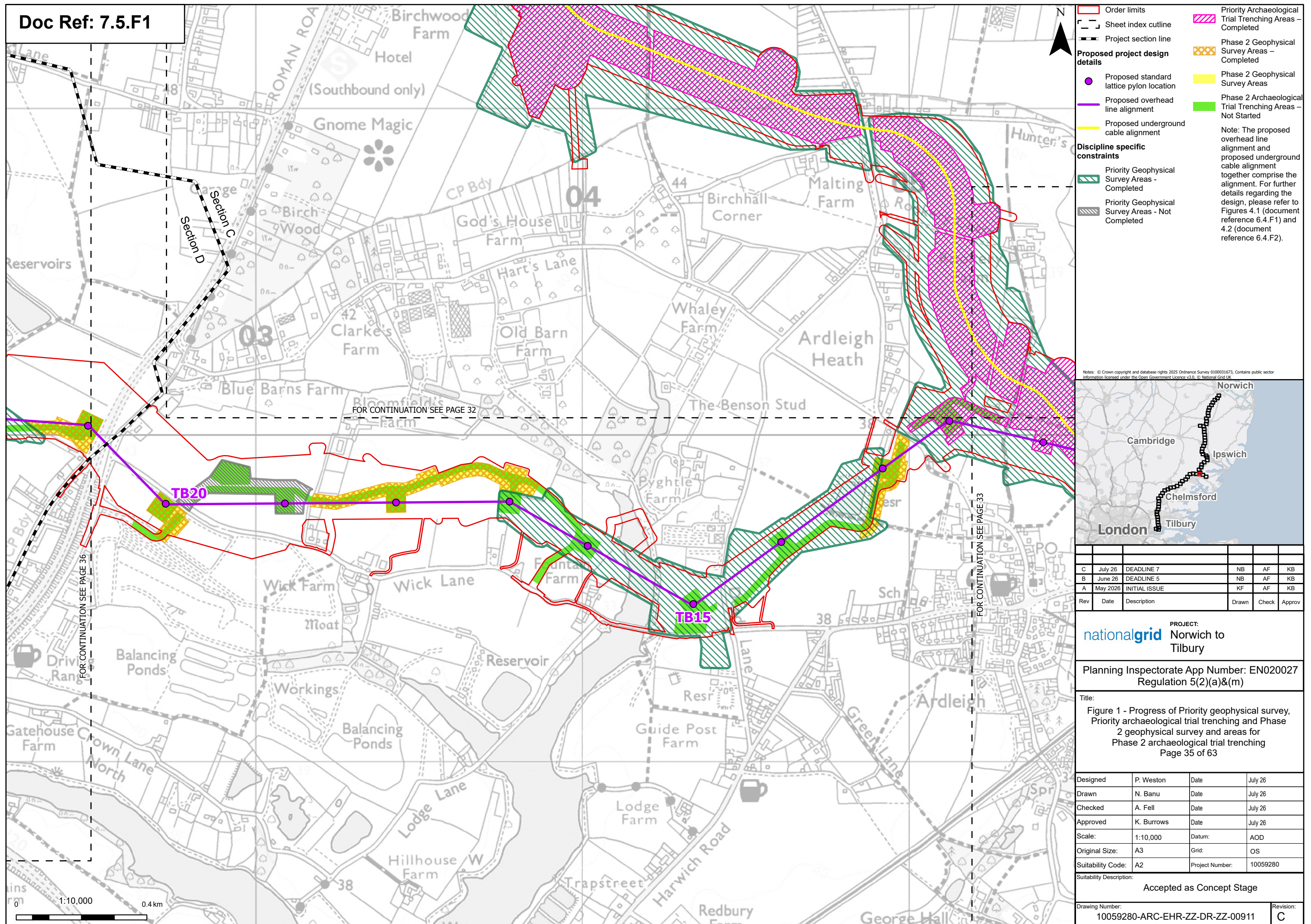
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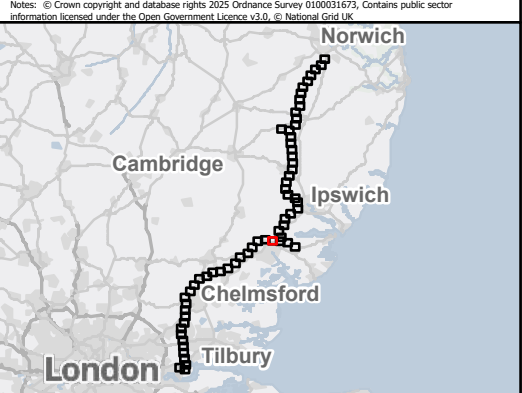
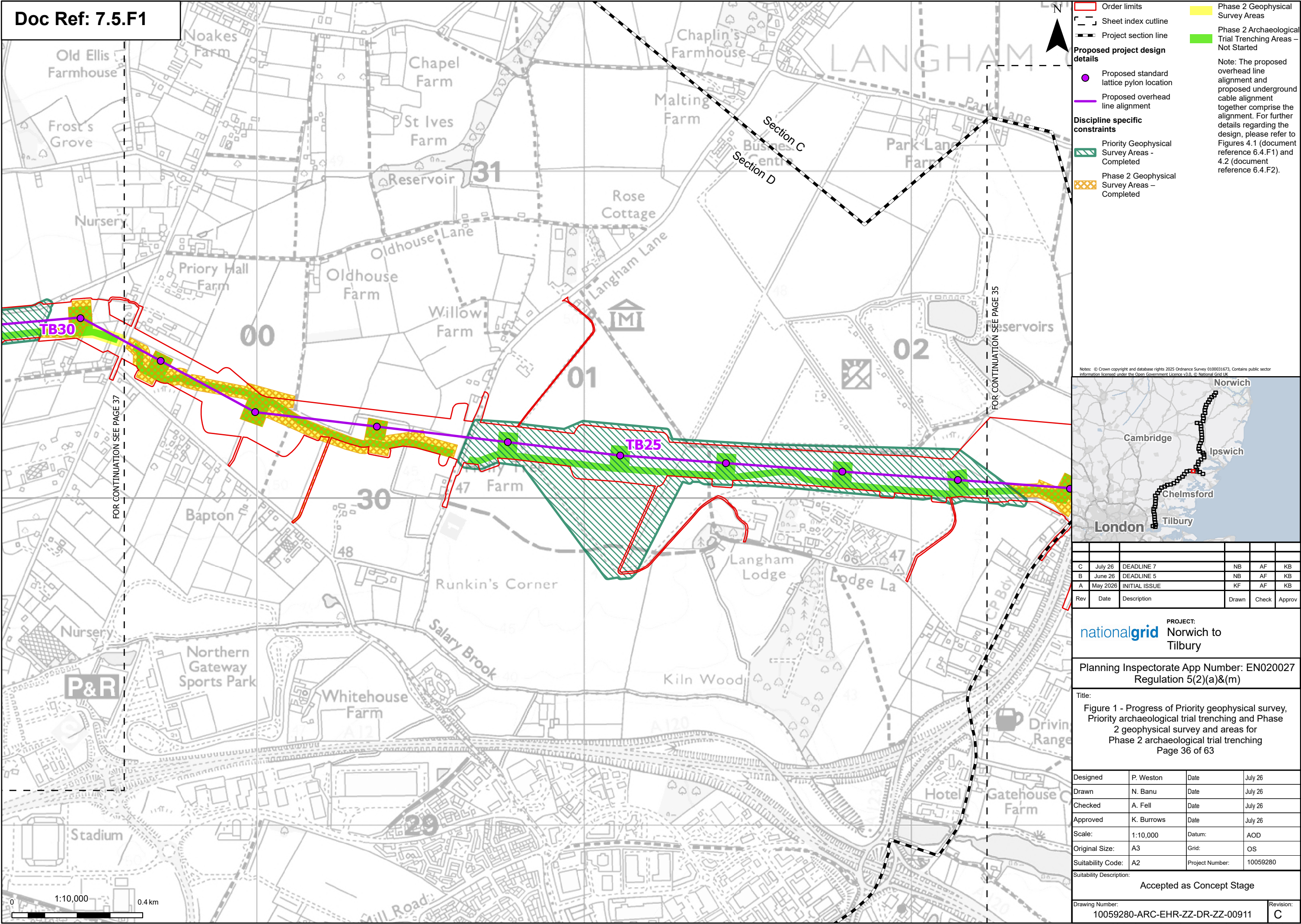
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PROJECT:
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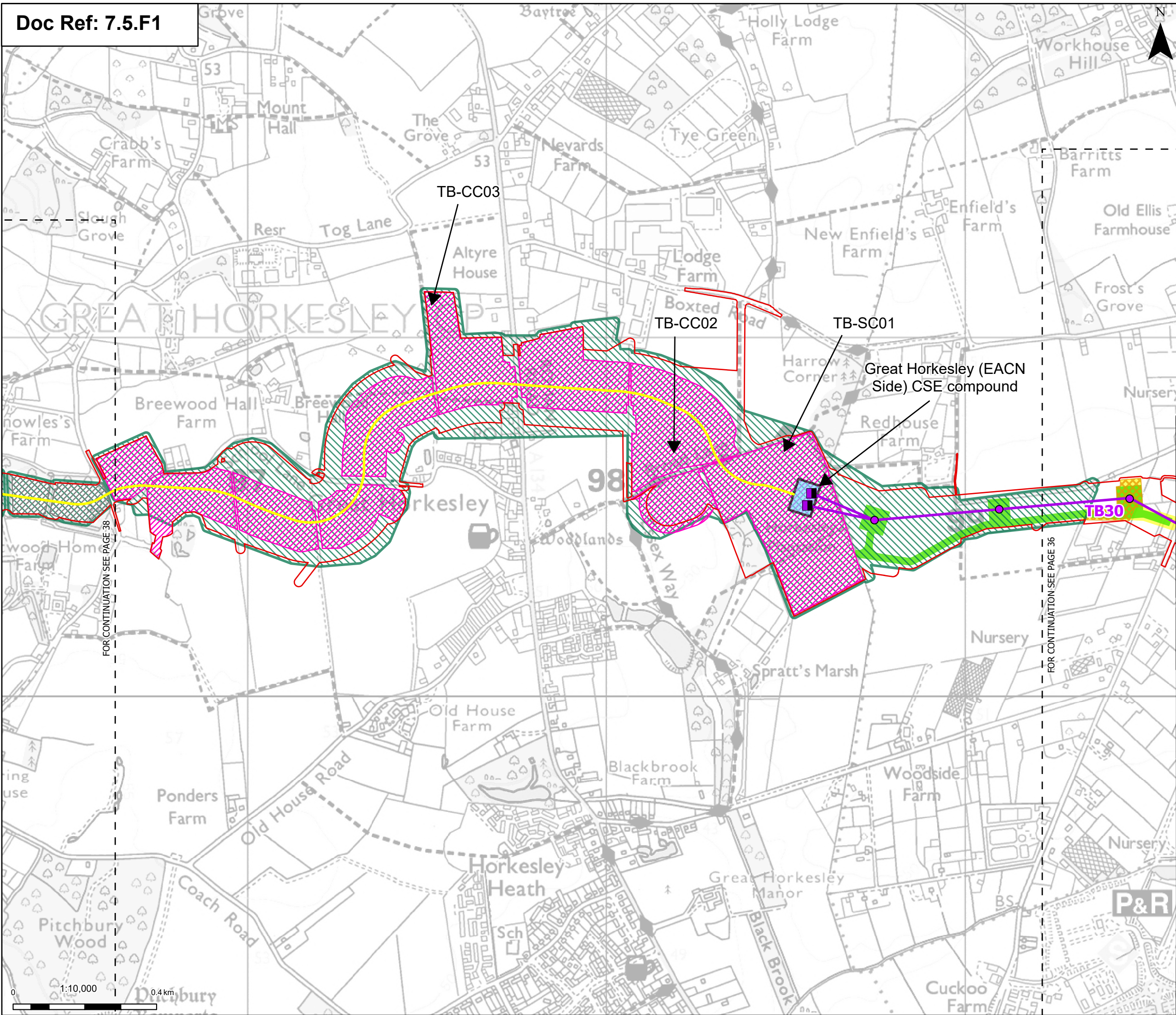
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Suitability Description:
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- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound

Discipline specific constraints

- Priority Geophysical Survey Areas - Completed
- Priority Archaeological Trial Trenching Areas – Completed

Priority Archaeological Trial Trenching Areas – Not Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid Norwich to Tilbury

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Title:

Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching

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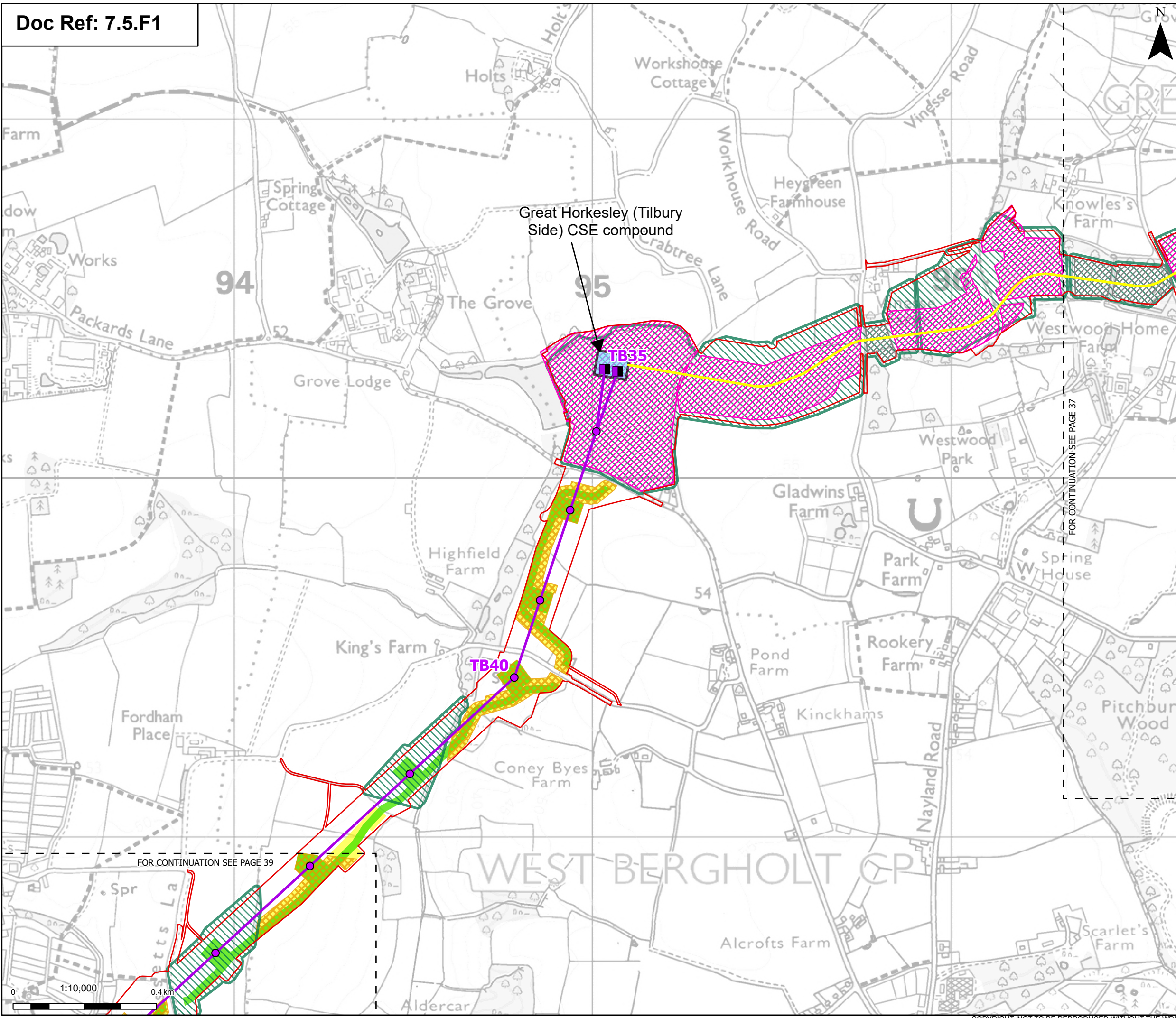
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- Proposed standard lattice pylon location
- Proposed overhead line alignment
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- Proposed cable sealing end compound

Discipline specific constraints

- Priority Geophysical Survey Areas - Completed
- Priority Archaeological Trial Trenching Areas - Completed

Priority Archaeological Trial Trenching Areas - Not Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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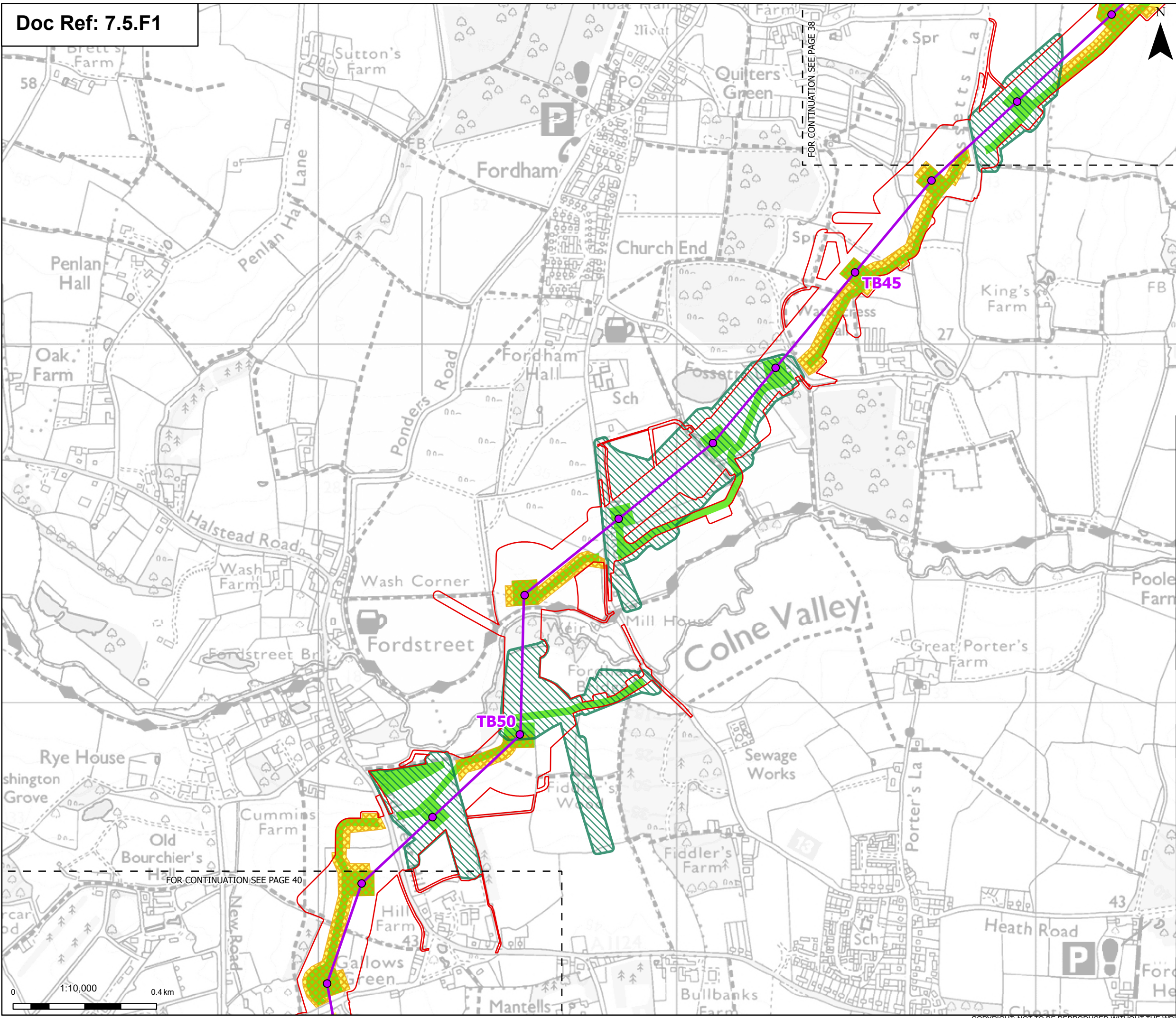
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Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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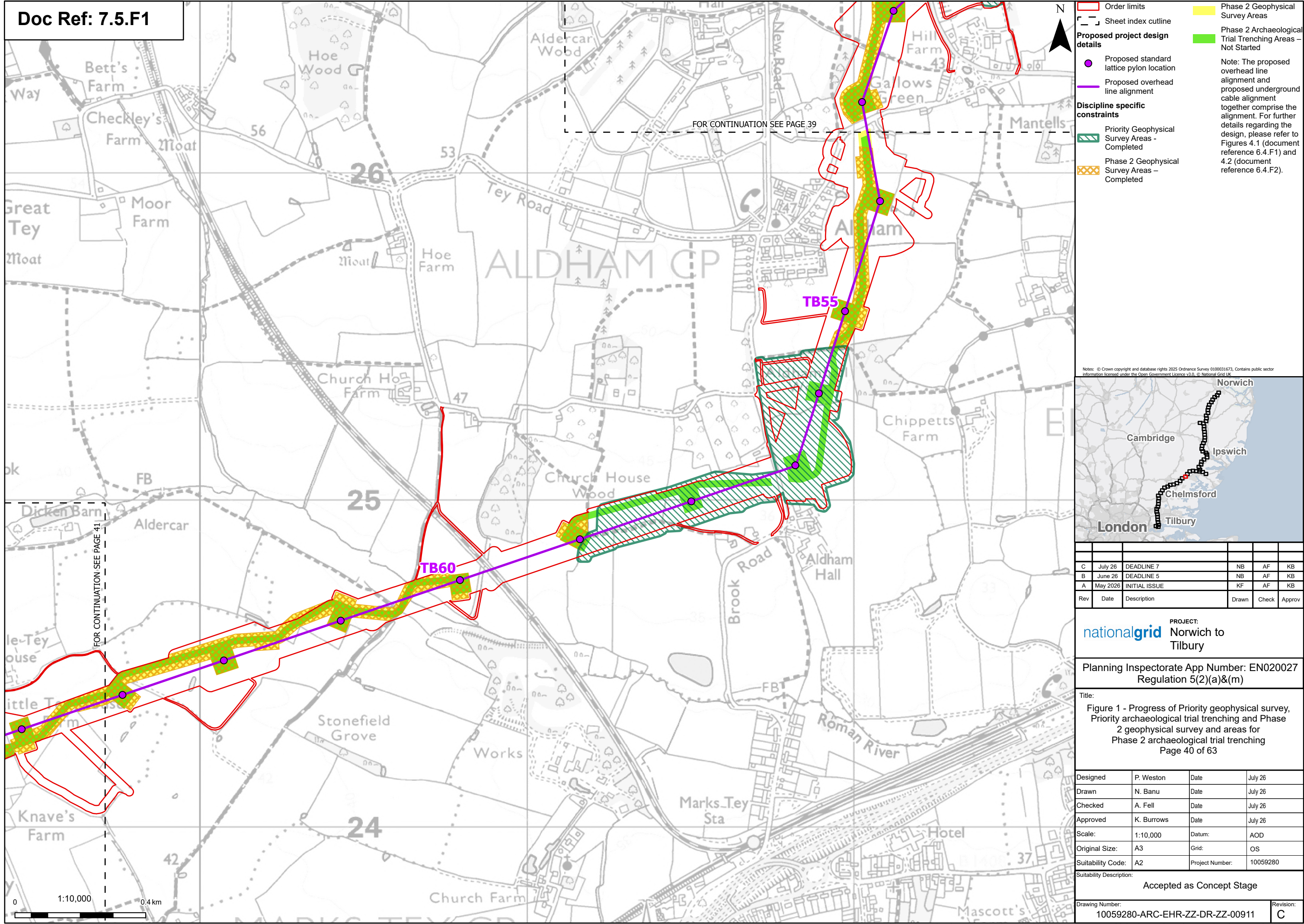
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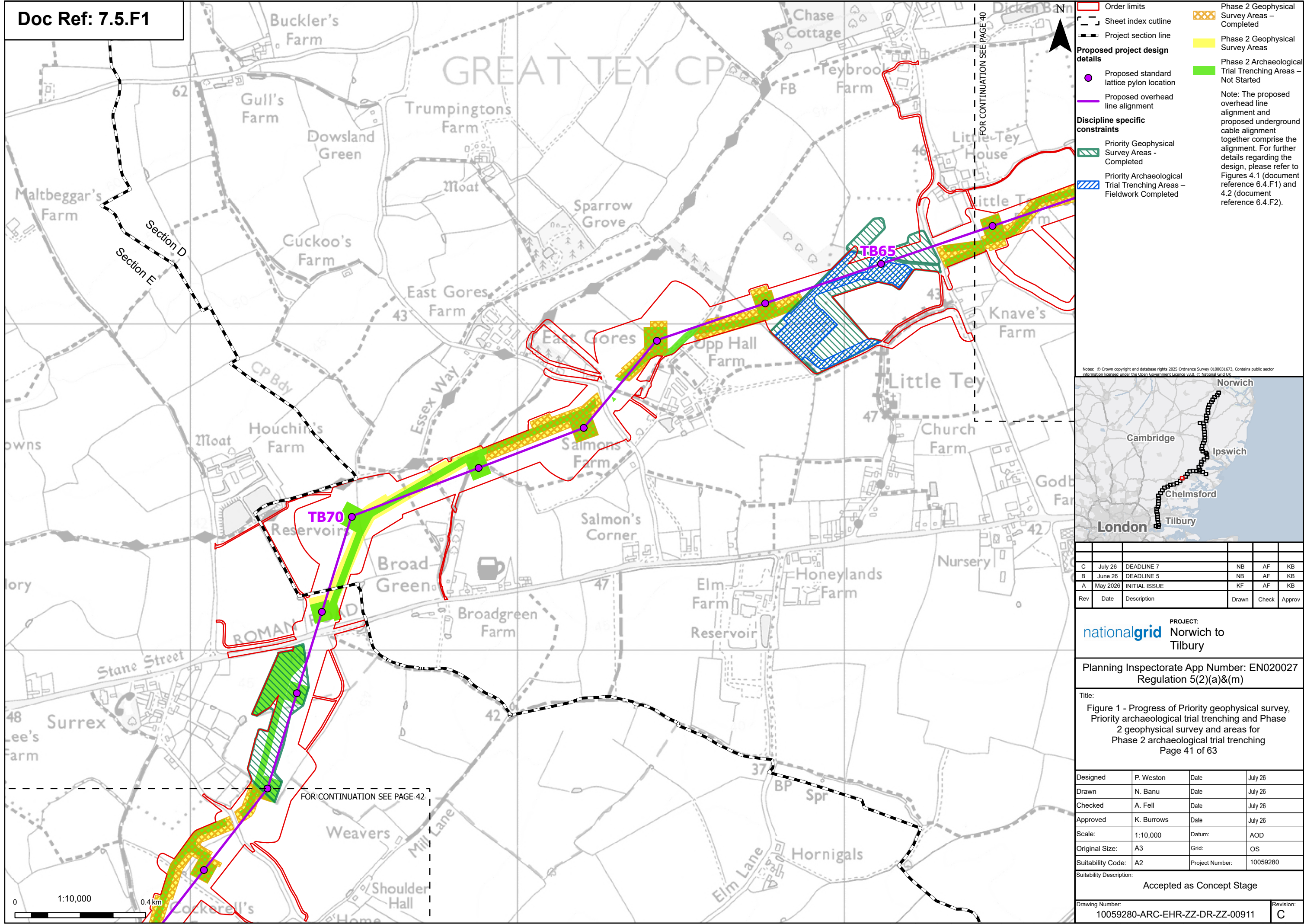
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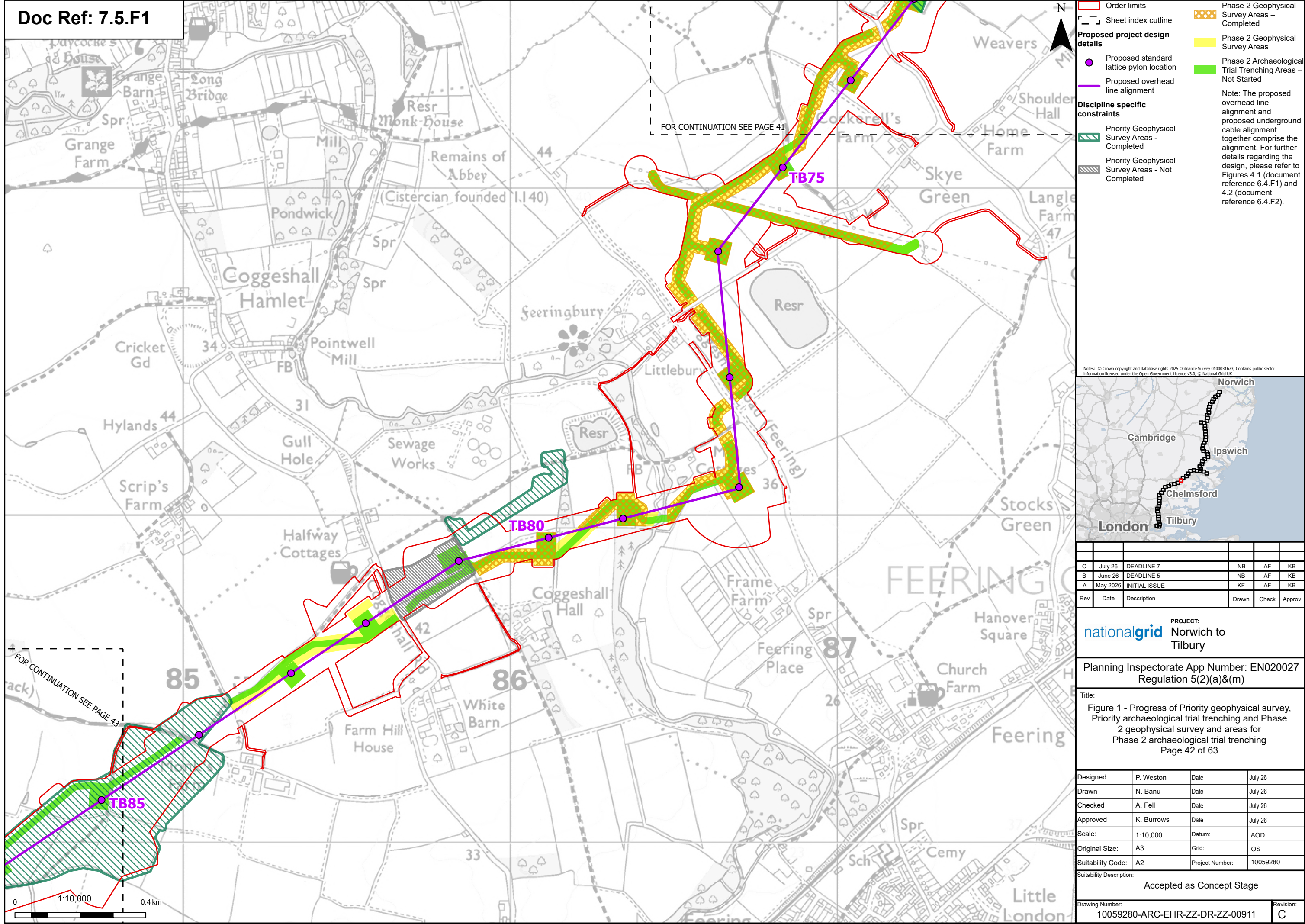
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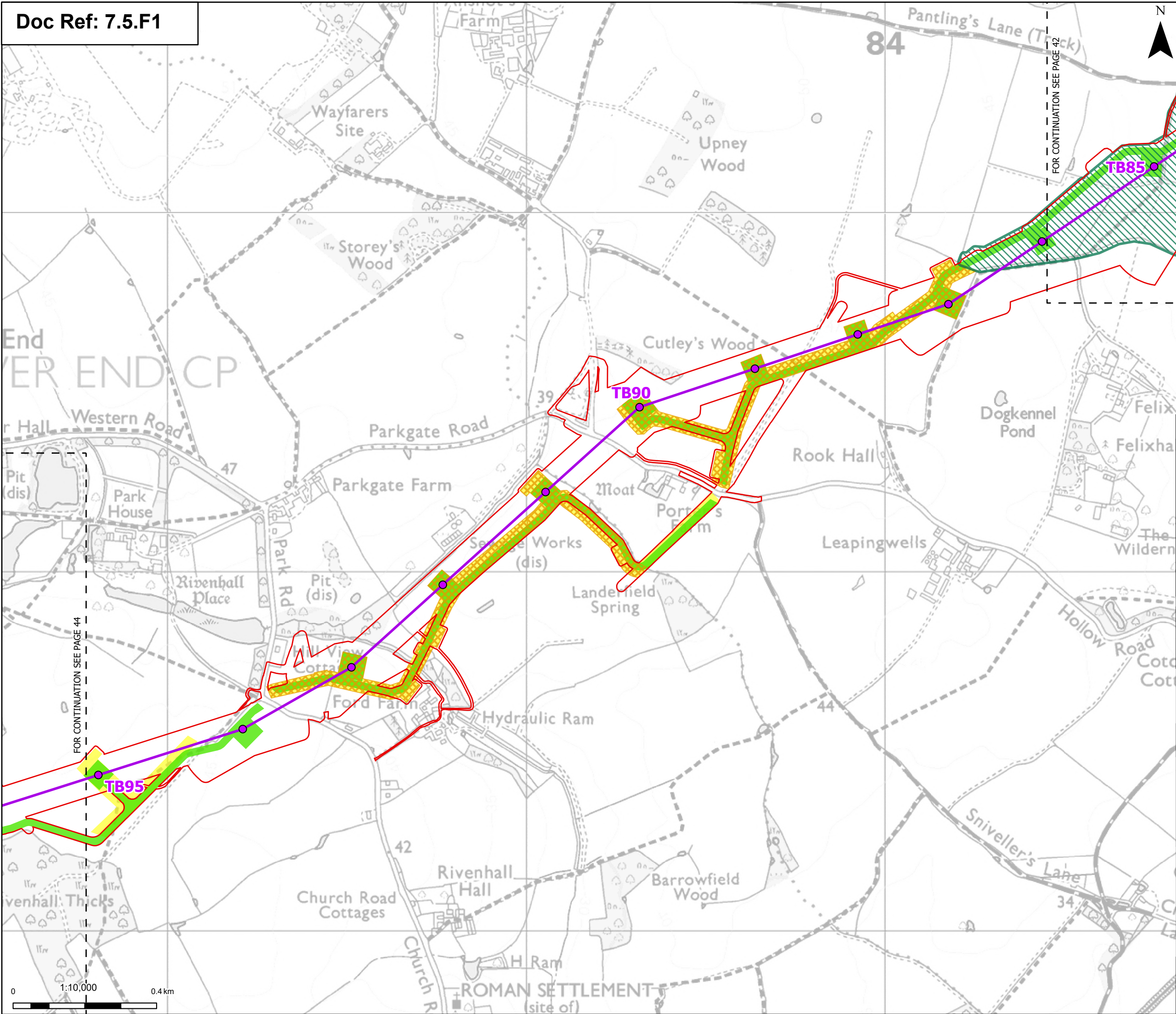
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Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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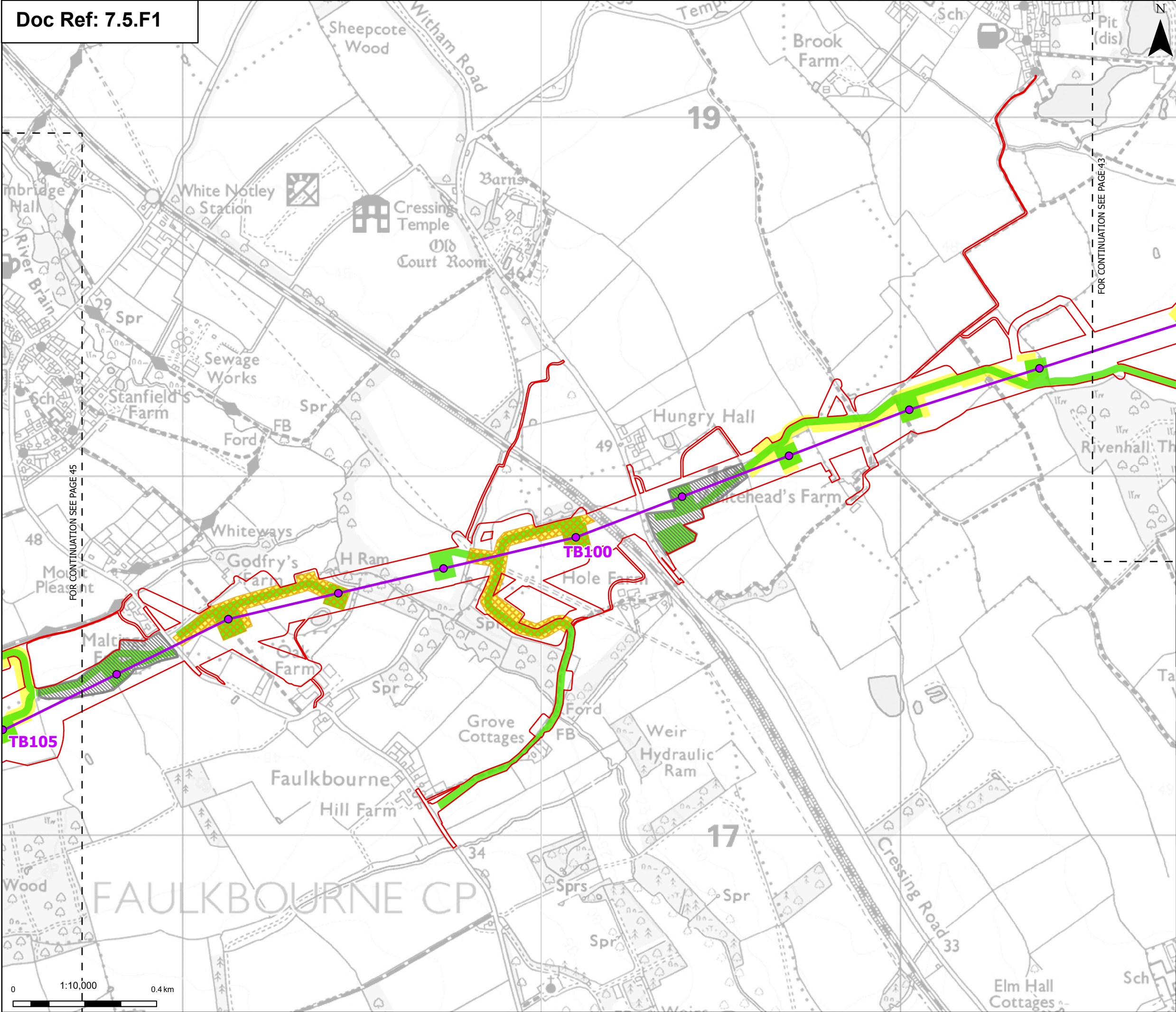
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Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Not Completed

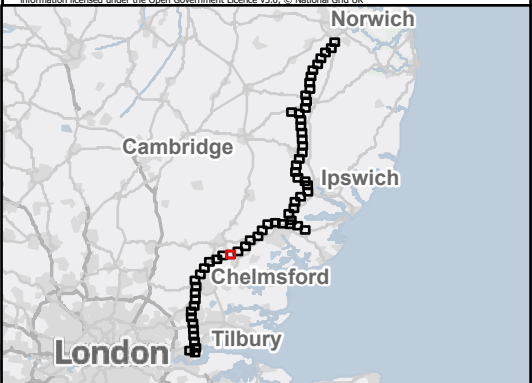
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Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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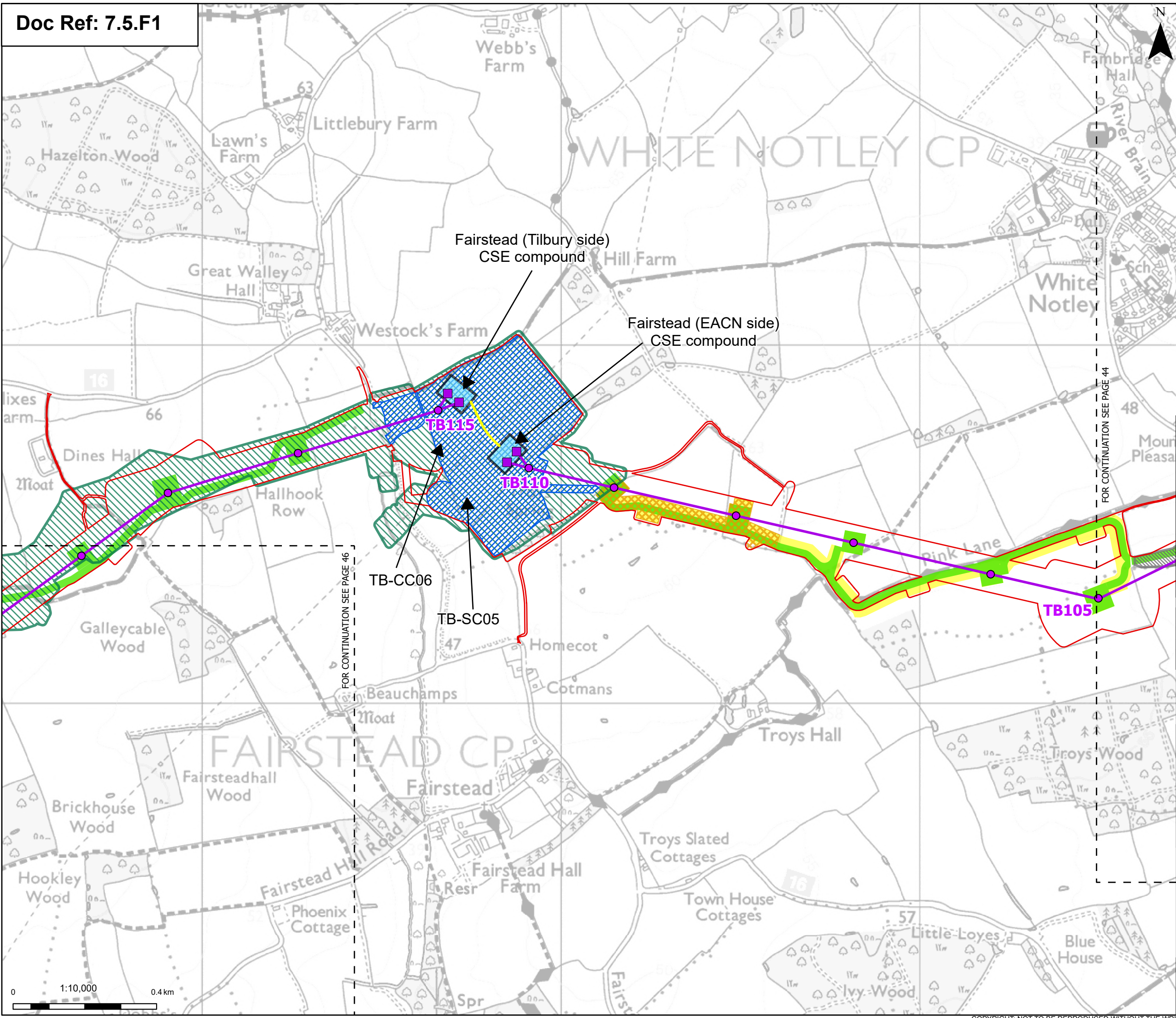
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Proposed low duty gantry

Proposed standard lattice pylon location

Proposed overhead line alignment

Proposed underground cable alignment

Proposed cable sealing end compound

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

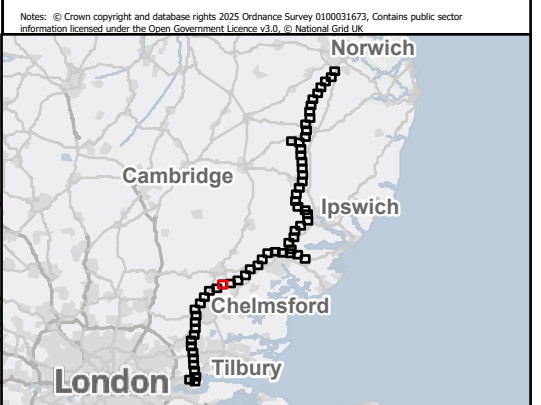
Priority Archaeological Trial Trenching Areas – Fieldwork Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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C	July 26	DEADLINE 7	NB	AF	KB
B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

PROJECT:
nationalgrid Norwich to Tilbury

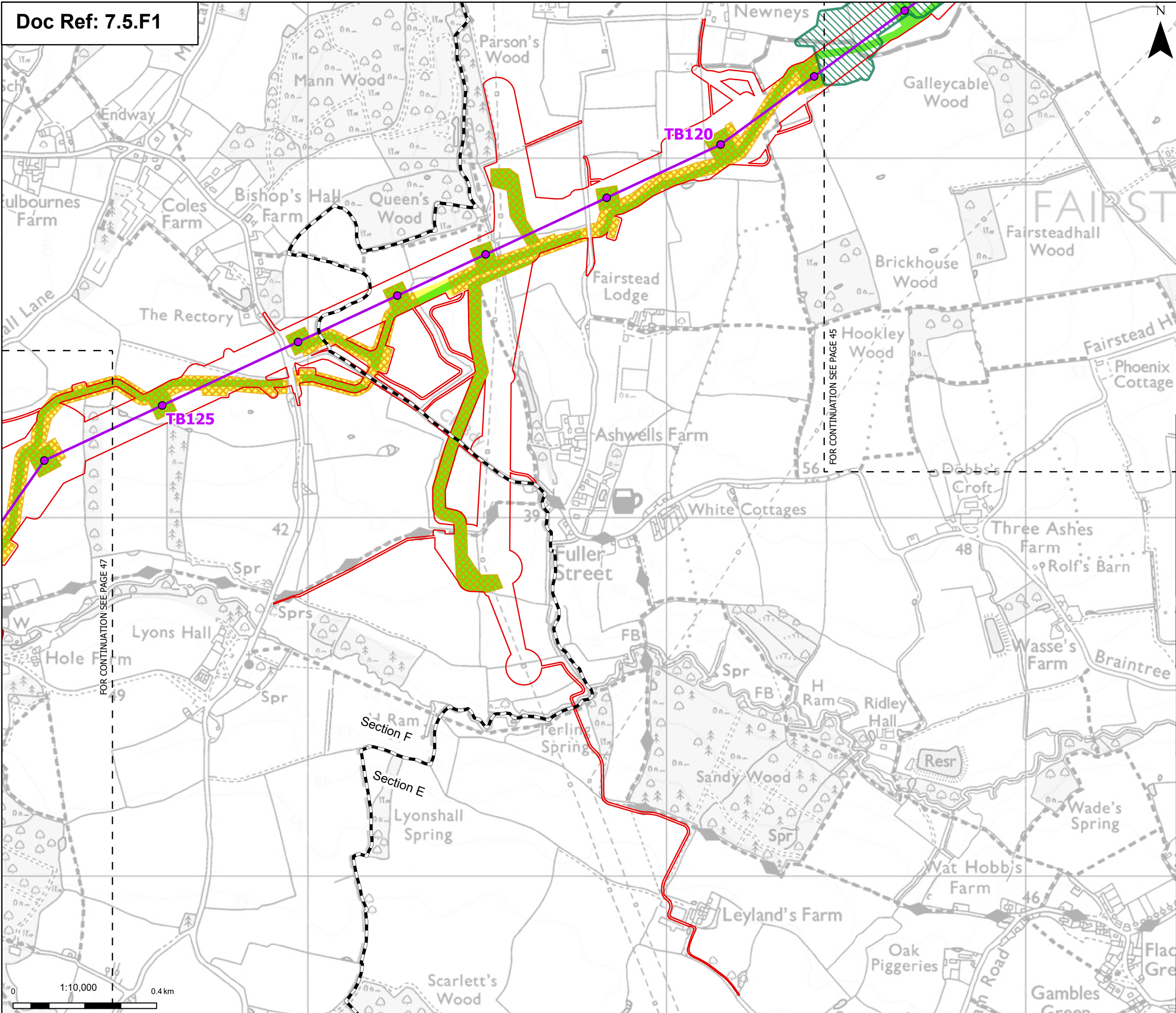
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

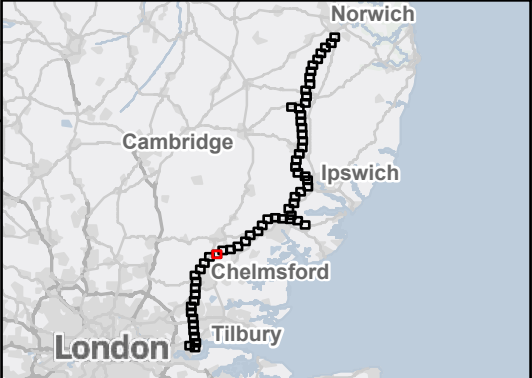
Accepted as Concept Stage

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	Order limits		Phase 2 Geophysical Survey Areas
	Sheet index cutline		
	Project section line		Phase 2 Archaeological Trial Trenching Areas – Not Started
Proposed project design details		Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).	
	Proposed standard lattice pylon location		
	Proposed overhead line alignment		
Discipline specific constraints			
	Priority Geophysical Survey Areas - Completed		
	Phase 2 Geophysical Survey Areas – Completed		

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A	May 2026	INITIAL ISSUE	KF	AF	KB
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nationalgrid PROJECT:
Norwich to
Tilbury

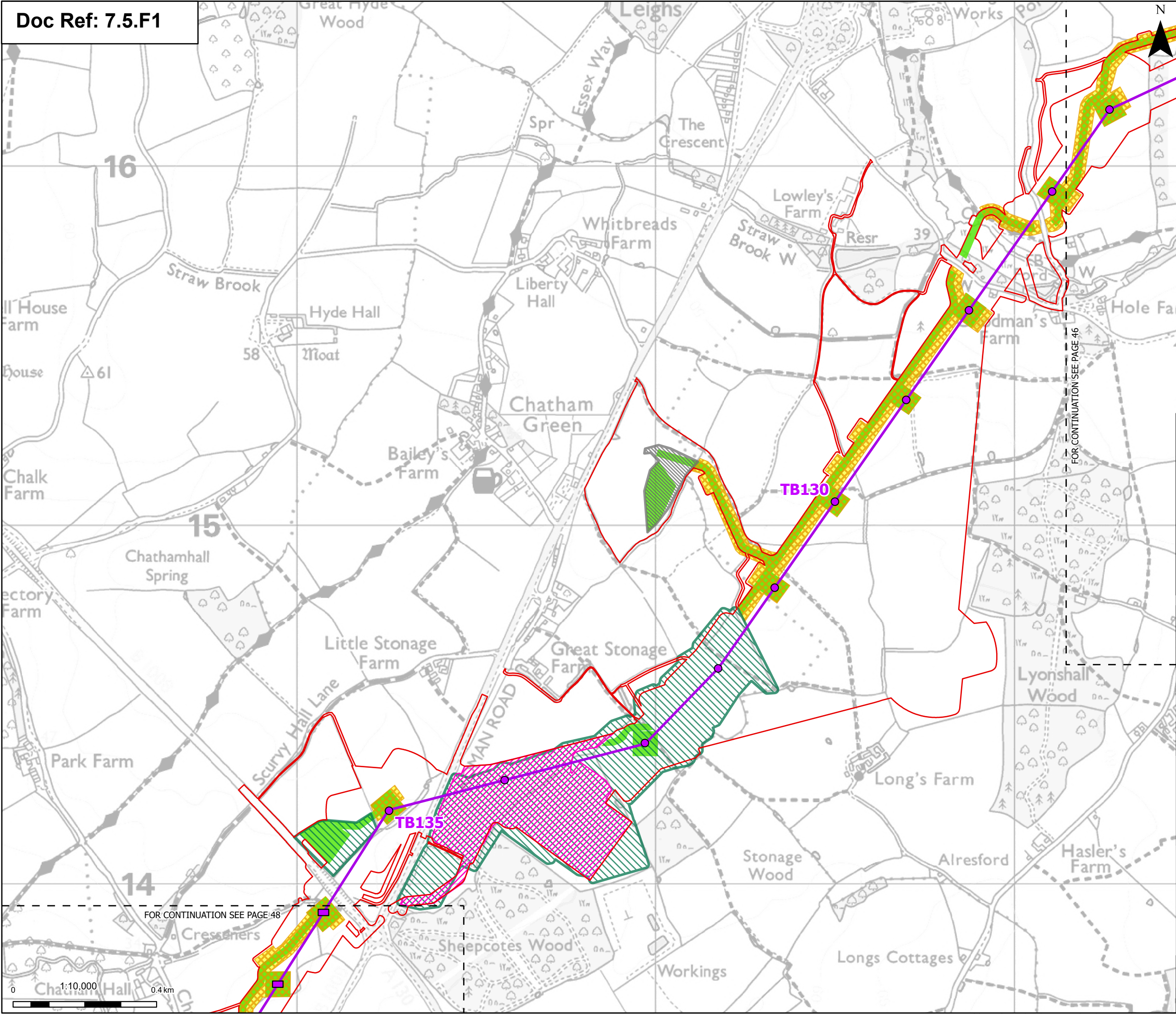
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Approved	K. Burrows	Date	July 26
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

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Sheet index outline

Proposed low height pylon location

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

Priority Archaeological Trial Trenching Areas - Completed

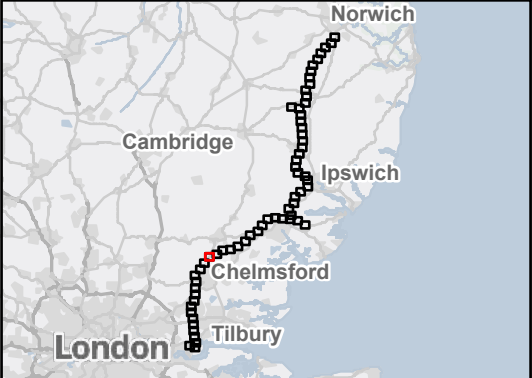
Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:
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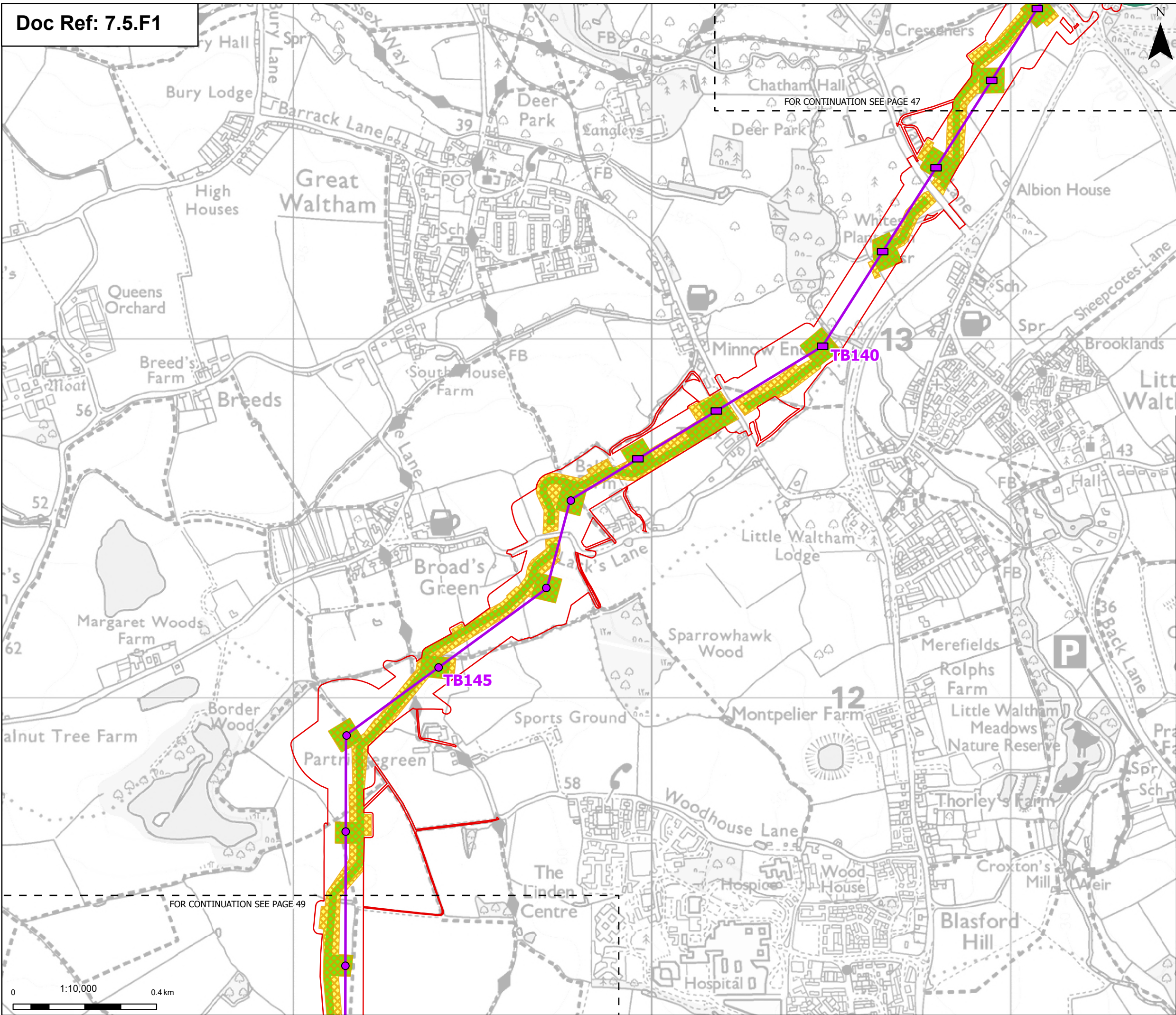
Planning Inspectorate App Number: EN020027
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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

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Sheet index outline

Proposed project design details

Proposed low height pylon location

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

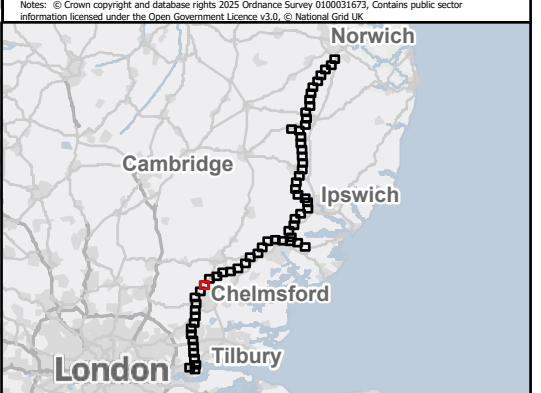
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Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:
nationalgrid Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

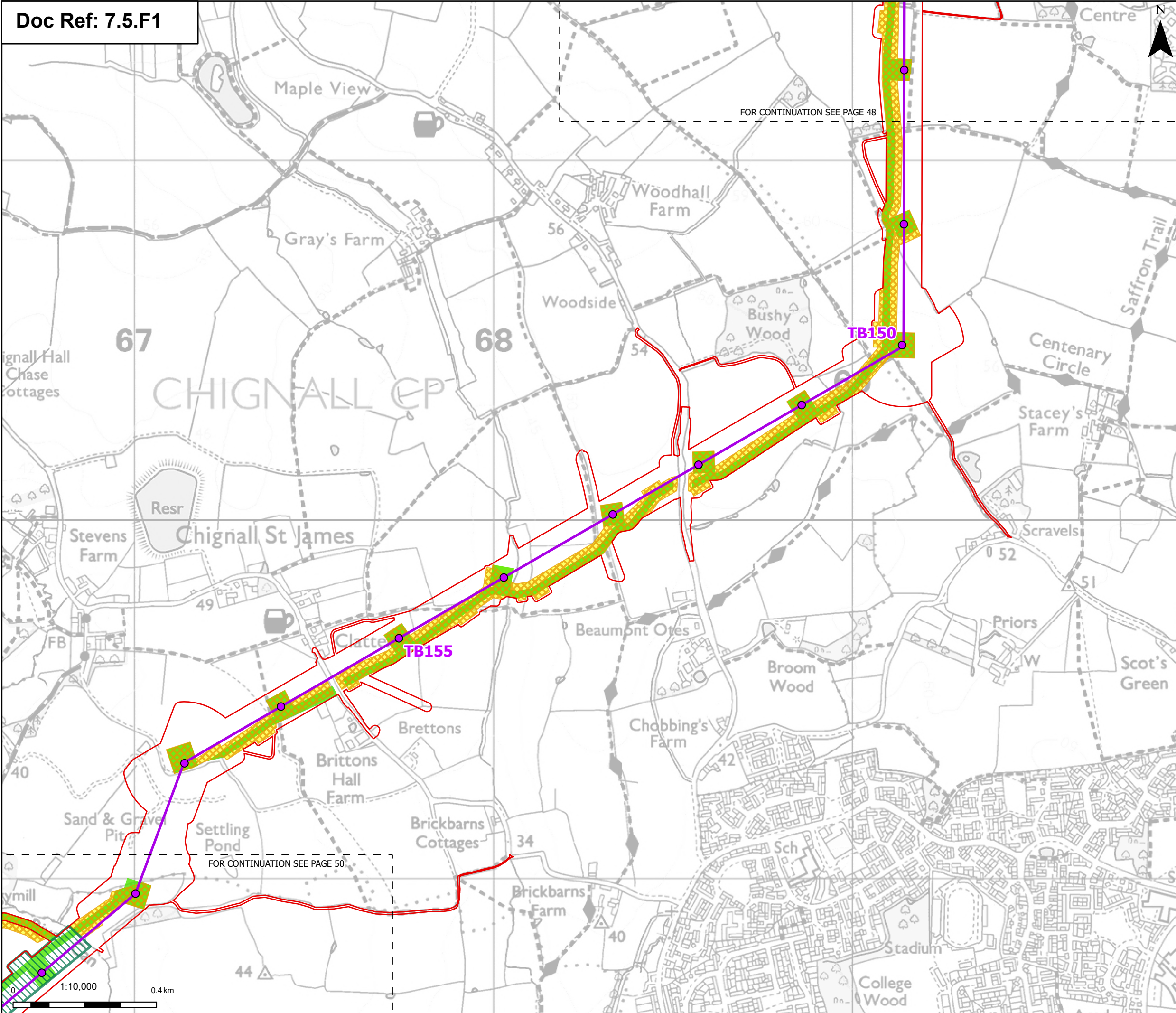
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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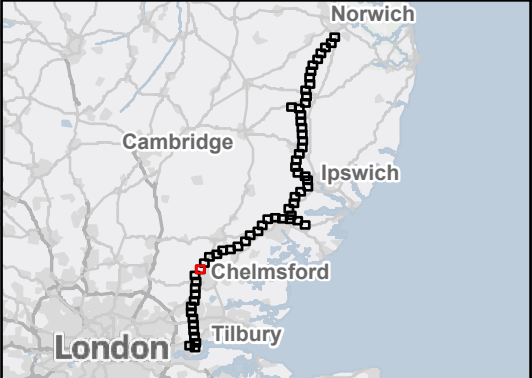
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	Order limits		Phase 2 Geophysical Survey Areas
	Sheet index cutline		Phase 2 Archaeological Trial Trenching Areas – Not Started
Proposed project design details			
	Proposed standard lattice pylon location	Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).	
	Proposed overhead line alignment		
Discipline specific constraints			
	Priority Geophysical Survey Areas - Completed		
	Phase 2 Geophysical Survey Areas – Completed		

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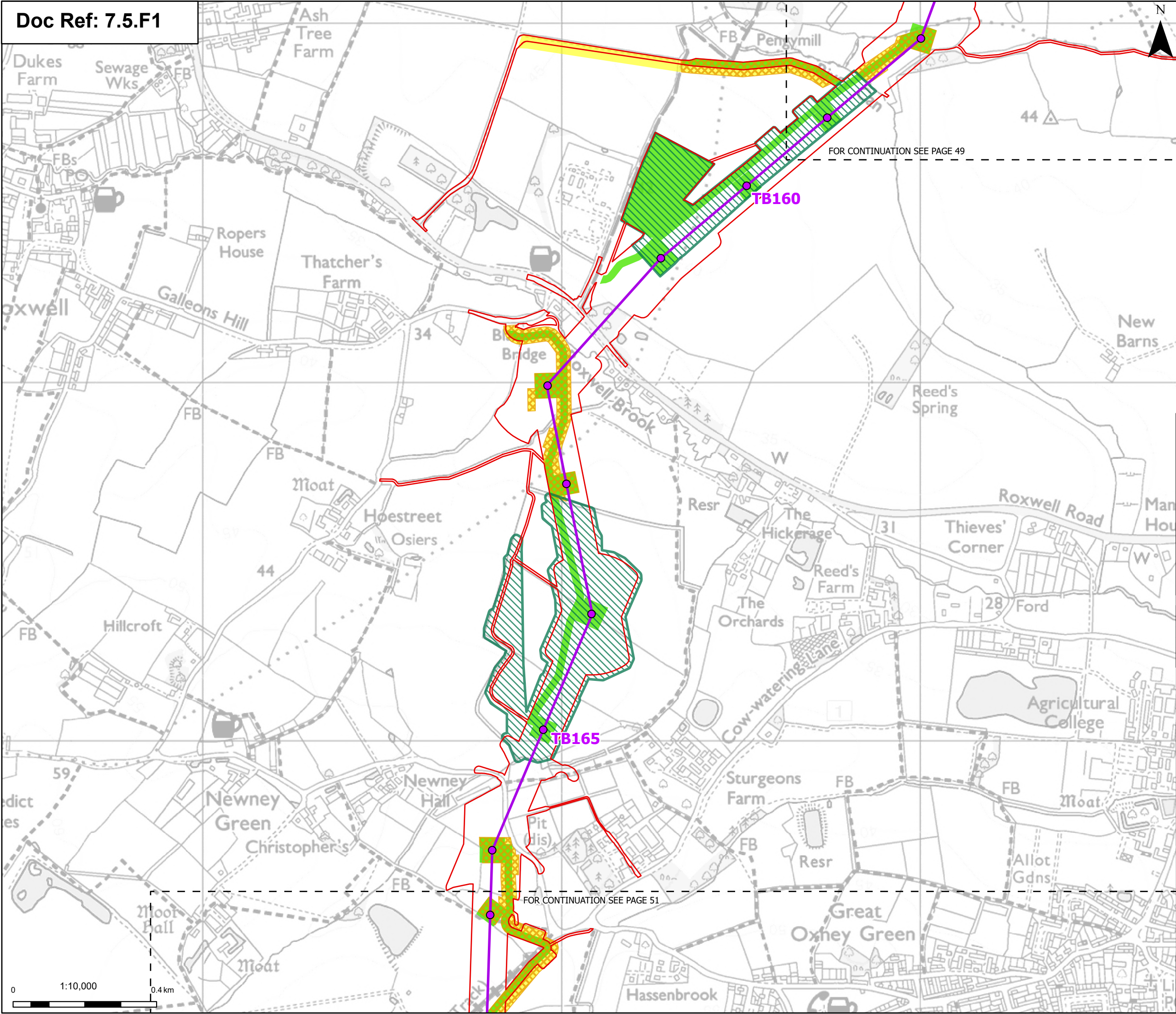
Planning Inspectorate App Number: EN020027
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Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Proposed project design details

Discipline specific constraints

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Proposed standard lattice pylon location

Proposed overhead line alignment

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas – Completed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT: Norwich to Tilbury

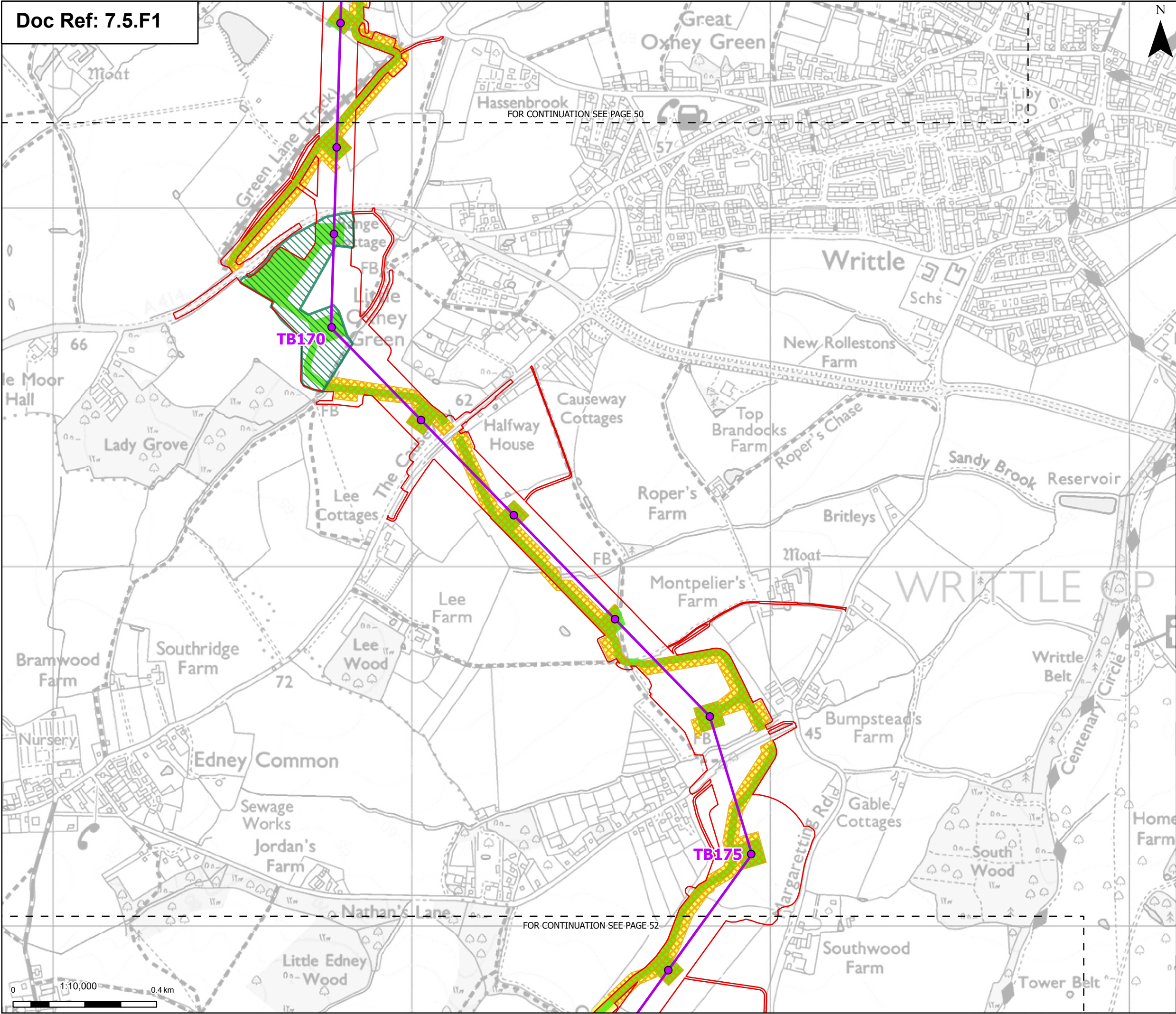
Planning Inspectorate App Number: EN020027 Regulation 5(2)(a)&(m)

Title: Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching Page 50 of 63

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Proposed project design details

Discipline specific constraints

Proposed standard lattice pylon location

Proposed overhead line alignment

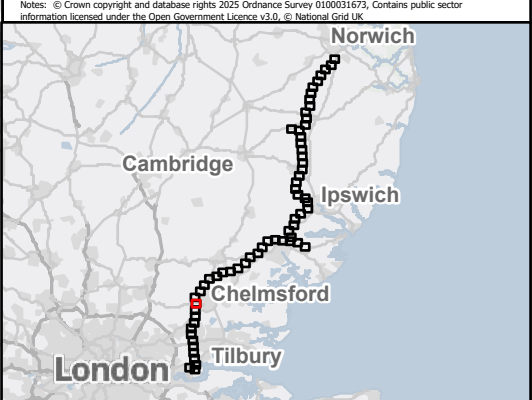
Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:
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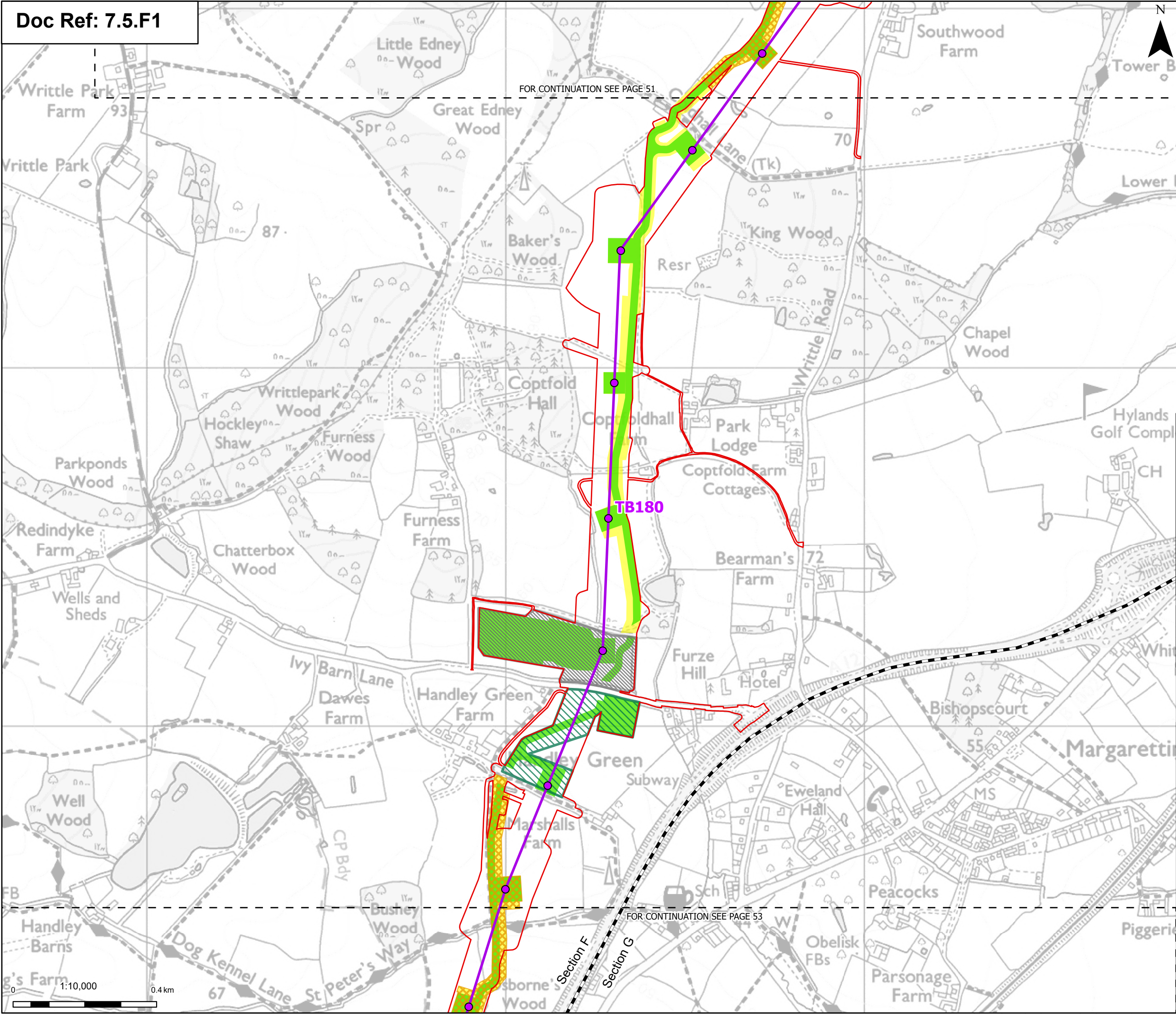
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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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Project section line

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Geophysical Survey Areas - Not Completed

Phase 2 Geophysical Survey Areas – Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:
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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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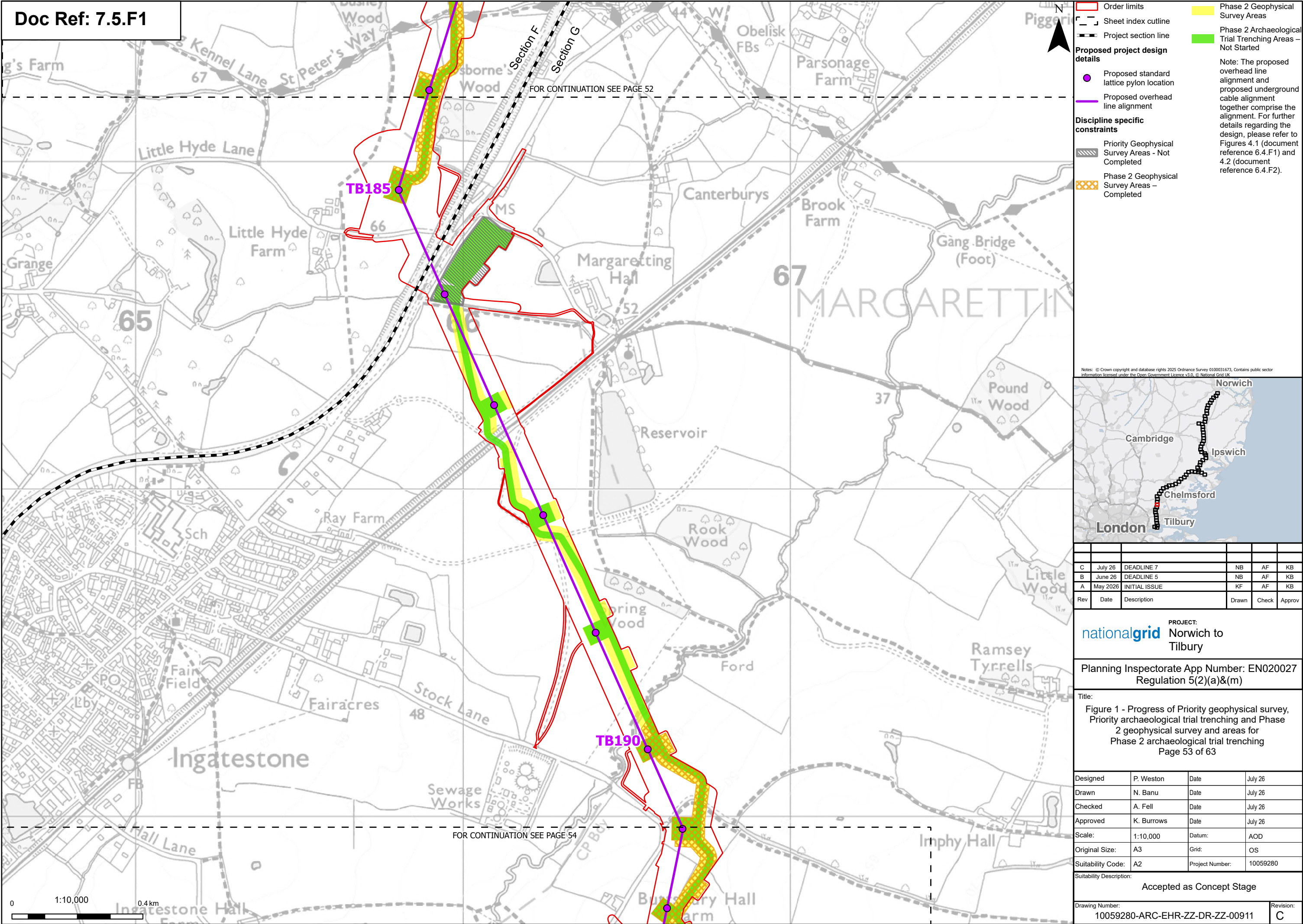
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Suitability Code:	A2	Project Number:	10059280

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Sheet index outline

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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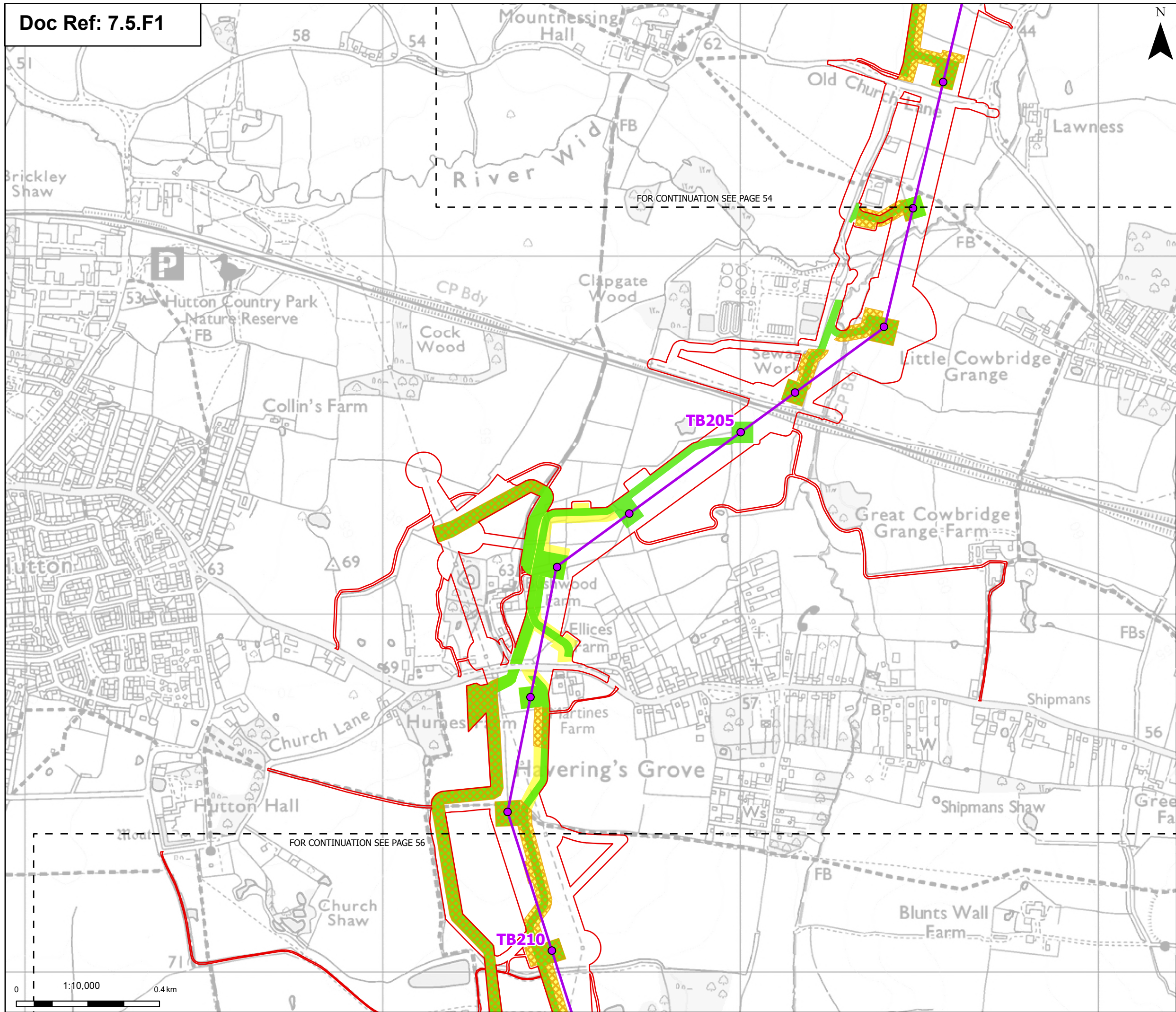
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Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Phase 2 Geophysical Survey Areas – Completed

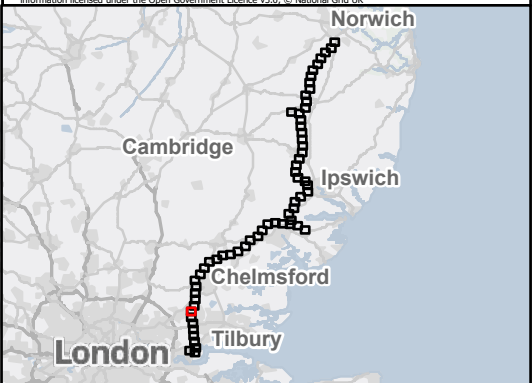
Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas – Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:
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Tilbury

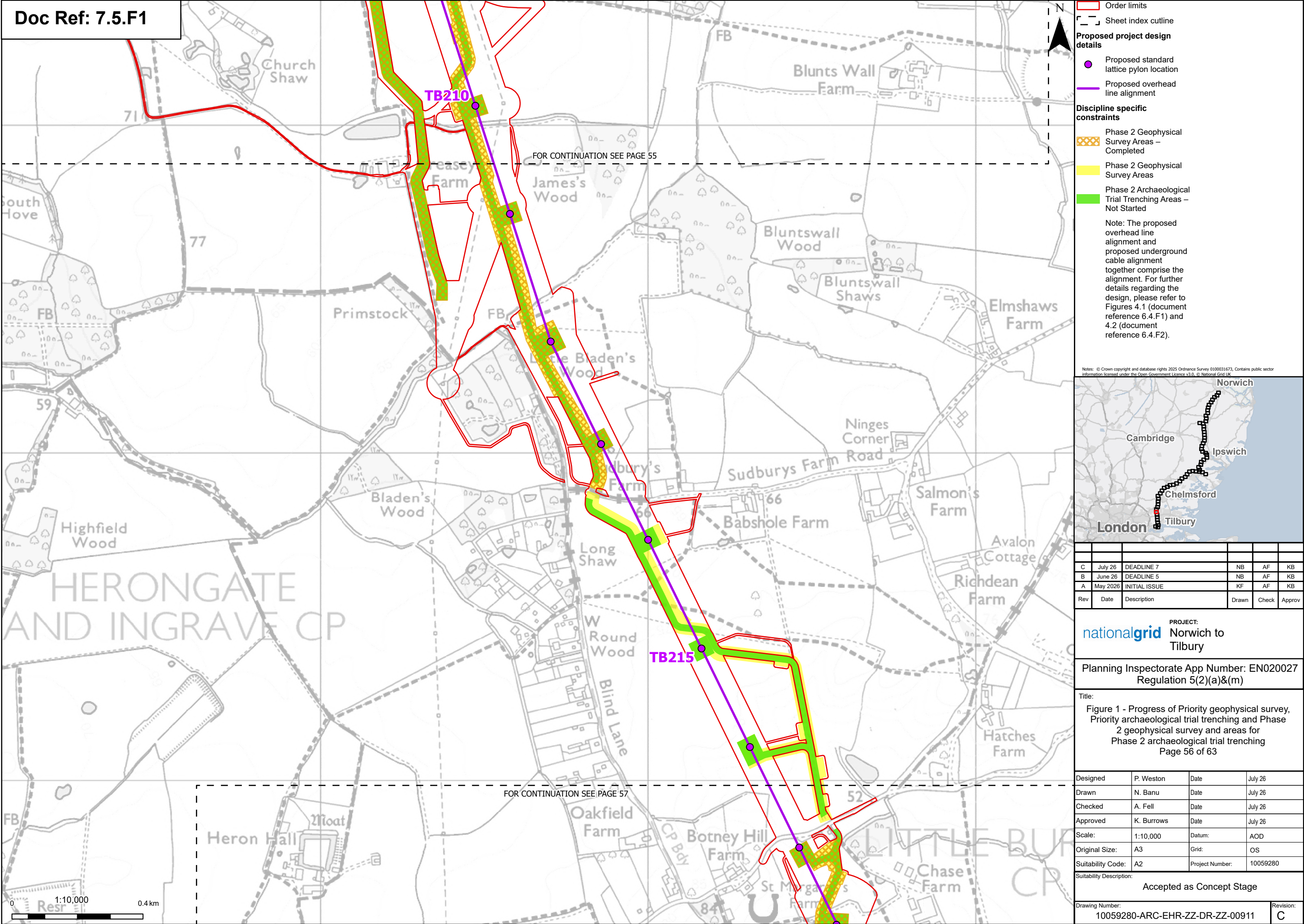
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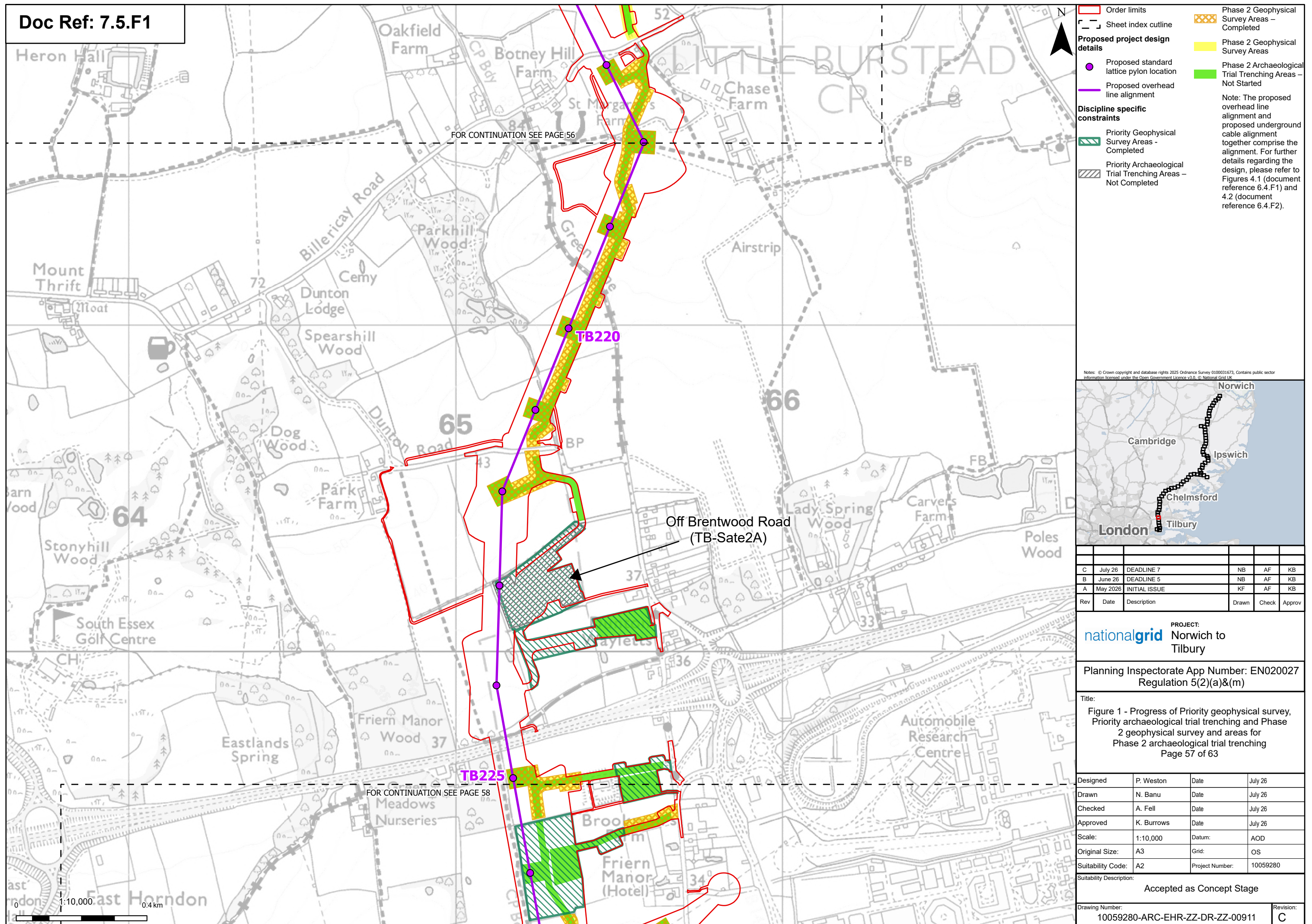
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Figure 1 - Progress of Priority geophysical survey,
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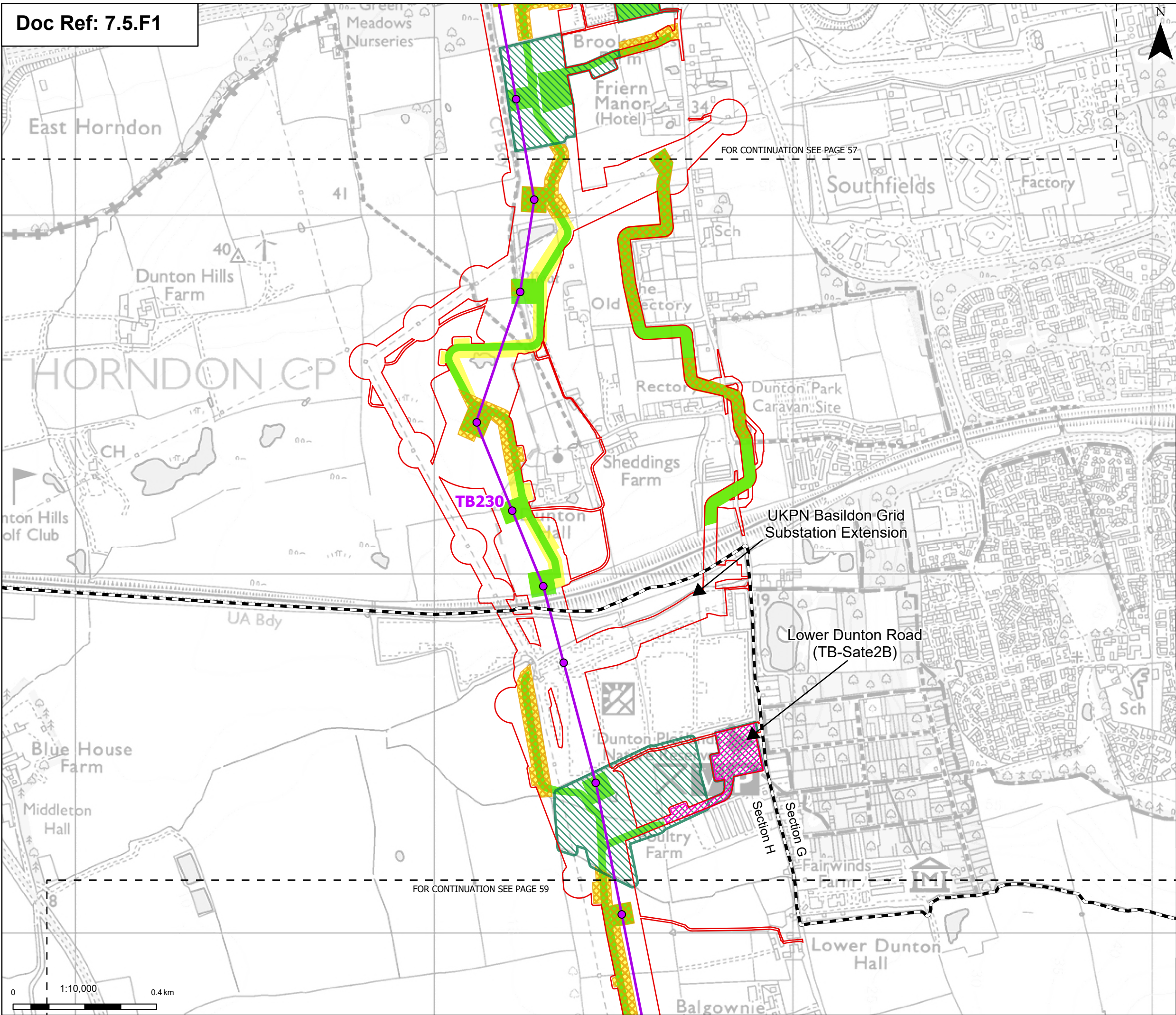
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Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
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Suitability Description:
Accepted as Concept Stage

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Project section line

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas - Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:

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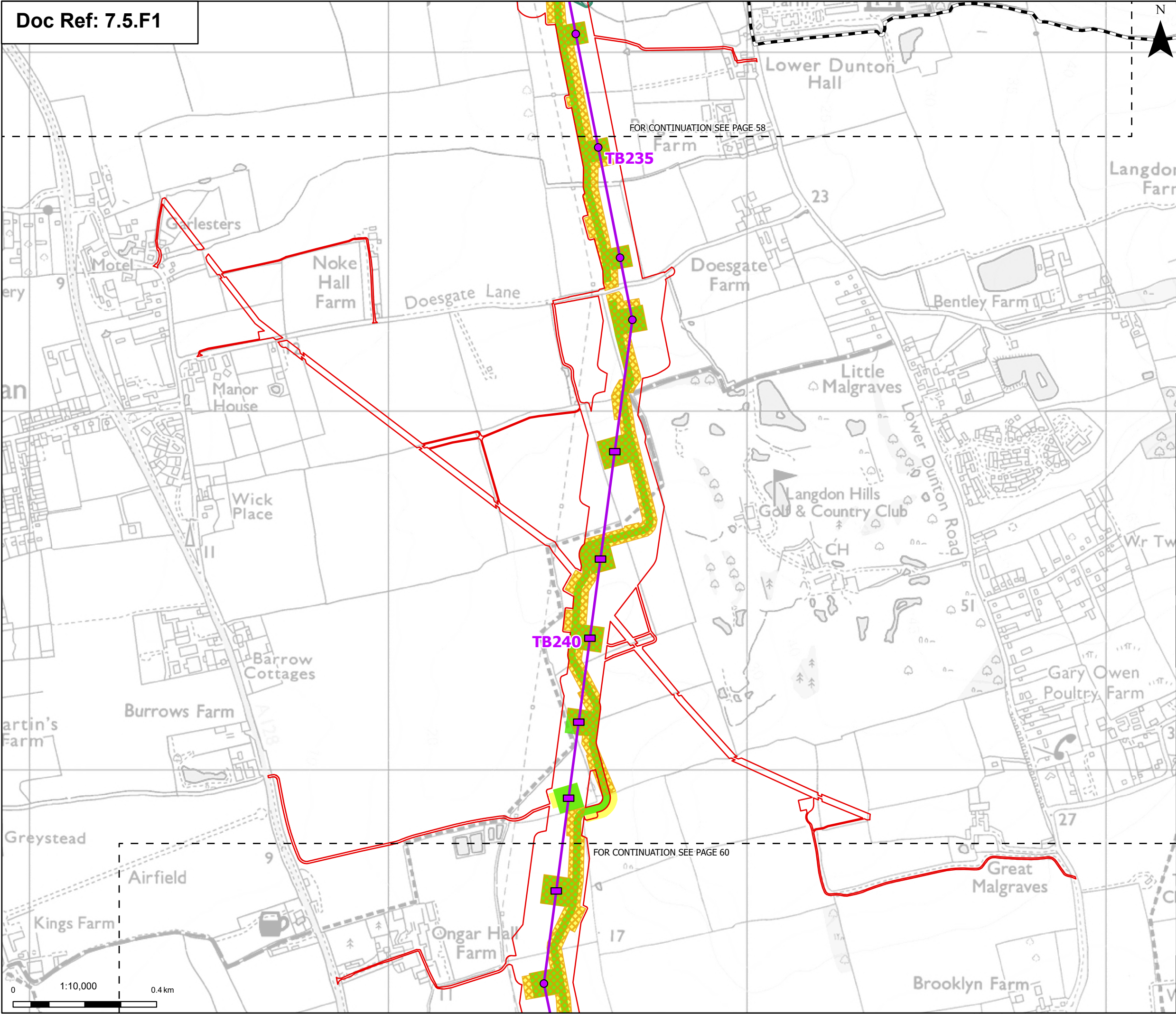
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Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
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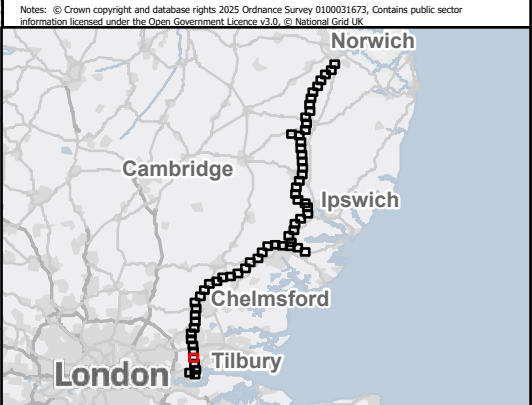
Order limits
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Project section line

Proposed project design details
Proposed low height pylon location
Proposed standard lattice pylon location
Proposed overhead line alignment

Discipline specific constraints
Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas - Completed
Phase 2 Geophysical Survey Areas
Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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Title:
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Original Size:	A3	Grid:	OS
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Proposed project design details

Proposed low height pylon location

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas - Completed

Phase 2 Geophysical Survey Areas

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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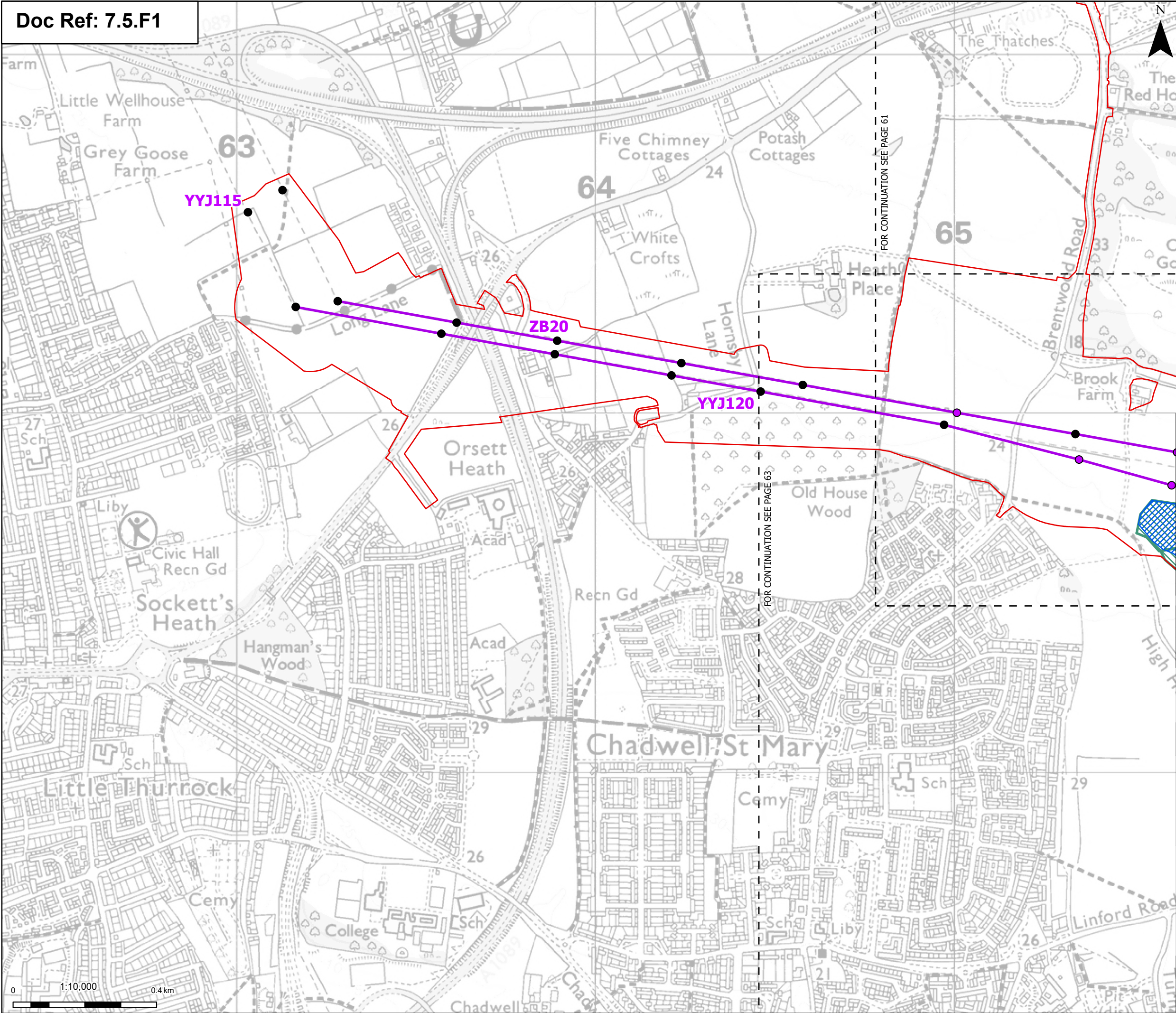
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Suitability Description:
Accepted as Concept Stage

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Proposed project design details

Existing pylon (modify)

Proposed standard lattice pylon location

Proposed overhead line alignment

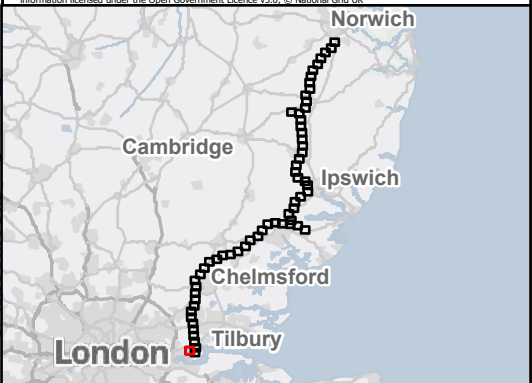
Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas – Fieldwork Completed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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C	July 26	DEADLINE 7	NB	AF	KB
B	June 26	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

PROJECT:
nationalgrid Norwich to Tilbury

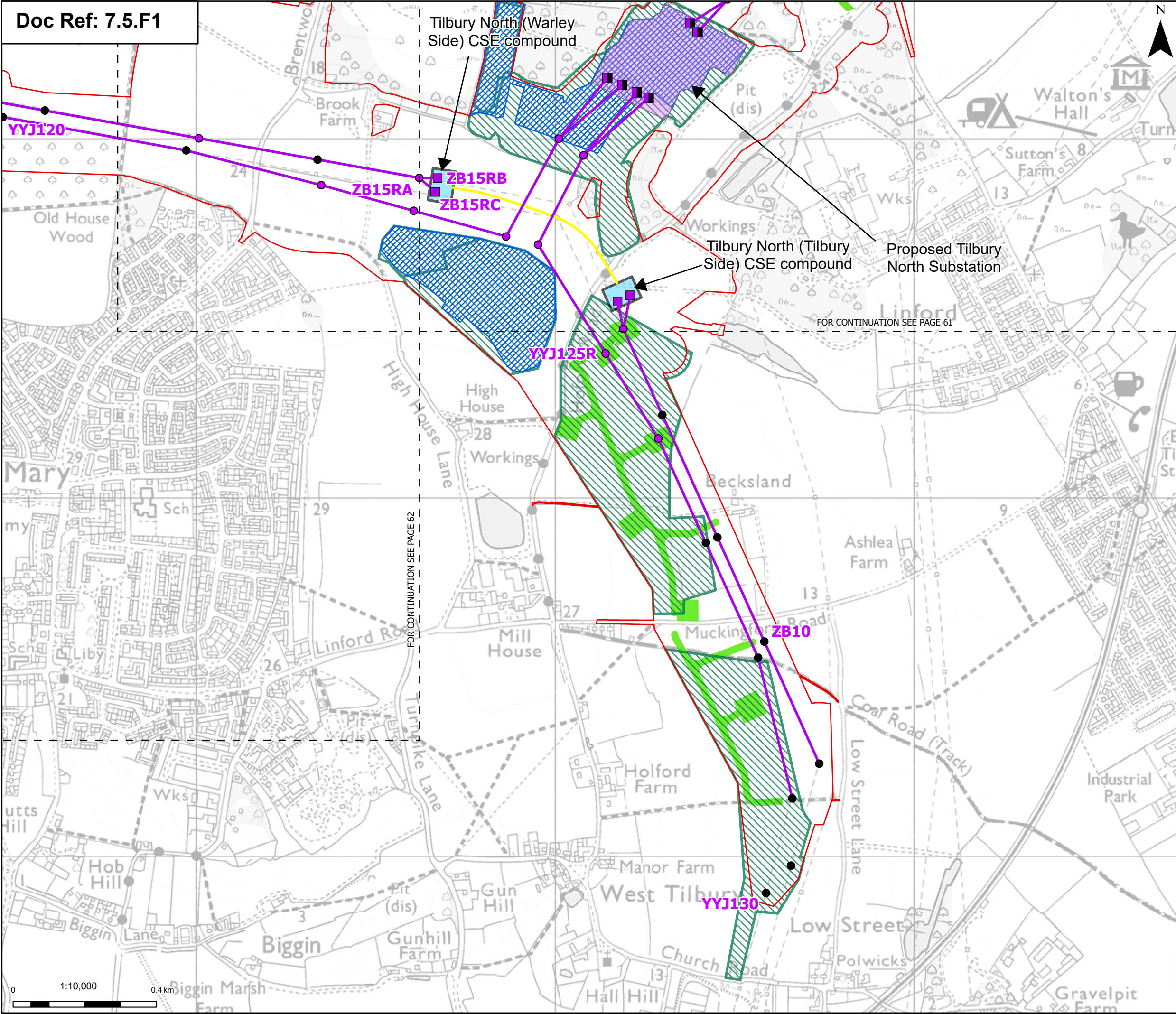
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching
Page 62 of 63

Designed	P. Weston	Date	July 26
Drawn	N. Banu	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EHR-ZZ-DR-ZZ-00911	Revision: C
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Doc Ref: 7.5.F1

Order limits

Sheet index outline

Proposed full line tension gantry

Proposed low duty gantry

Existing pylon (modify)

Proposed standard lattice pylon location

Proposed overhead line alignment

Proposed underground cable alignment

Proposed Tilbury North Substation

Proposed cable sealing end compound

Discipline specific constraints

Priority Geophysical Survey Areas - Completed

Priority Archaeological Trial Trenching Areas - Fieldwork Completed

Phase 2 Archaeological Trial Trenching Areas - Not Started

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Norwich

Cambridge

Ipswich

Chelmsford

Tilbury

London

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Rev	Date	Description	Drawn	Check	Approv

PROJECT:

nationalgrid

Norwich to Tilbury

Planning Inspectorate App Number: EN020027 Regulation 5(2)(a)&(m)

Title:

Figure 1 - Progress of Priority geophysical survey, Priority archaeological trial trenching and Phase 2 geophysical survey and areas for Phase 2 archaeological trial trenching Page 63 of 63

Designed	P. Weston	Date	July 26
Drawn	N. Banu	Date	July 26
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Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:

Accepted as Concept Stage

Drawing Number:

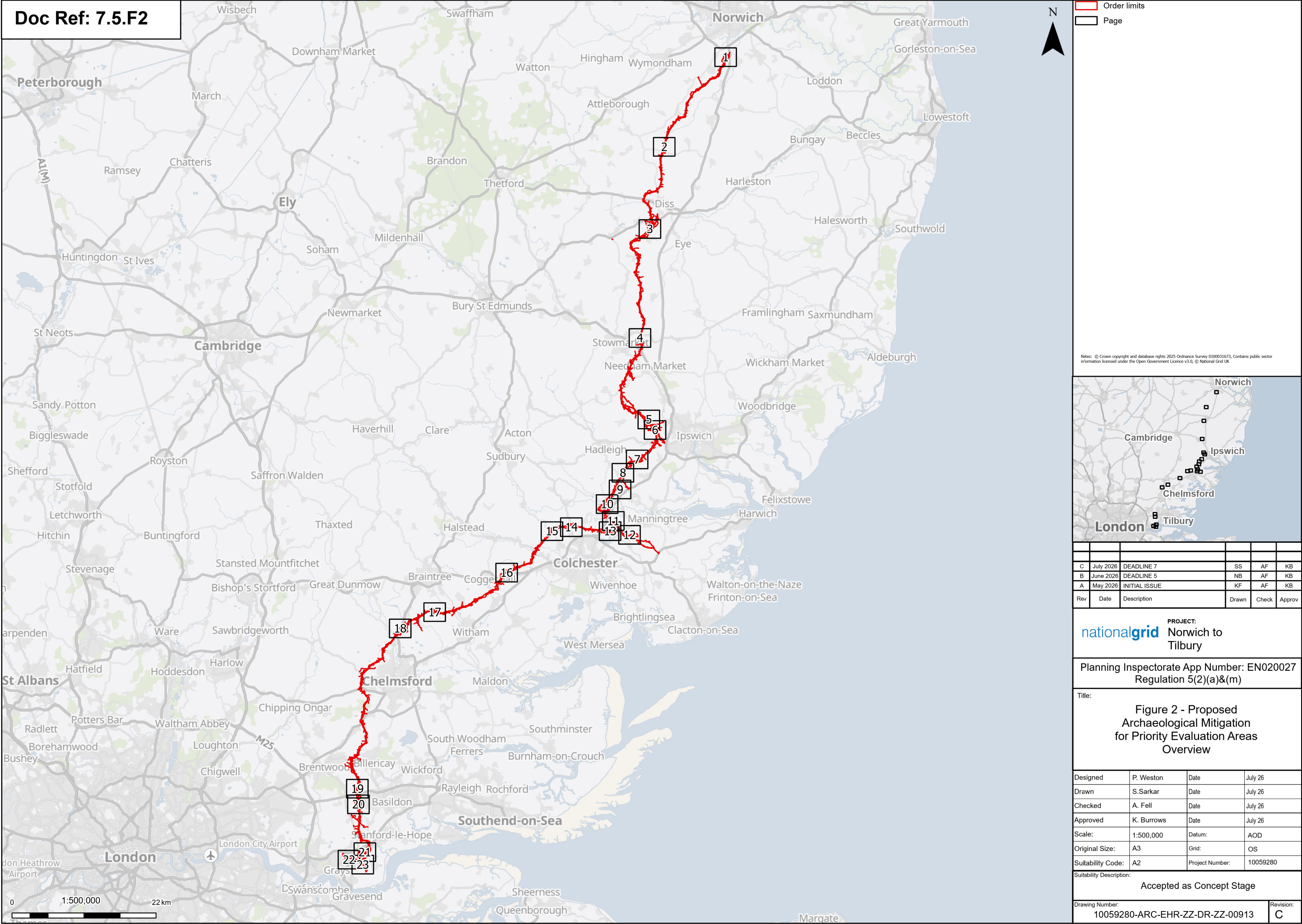
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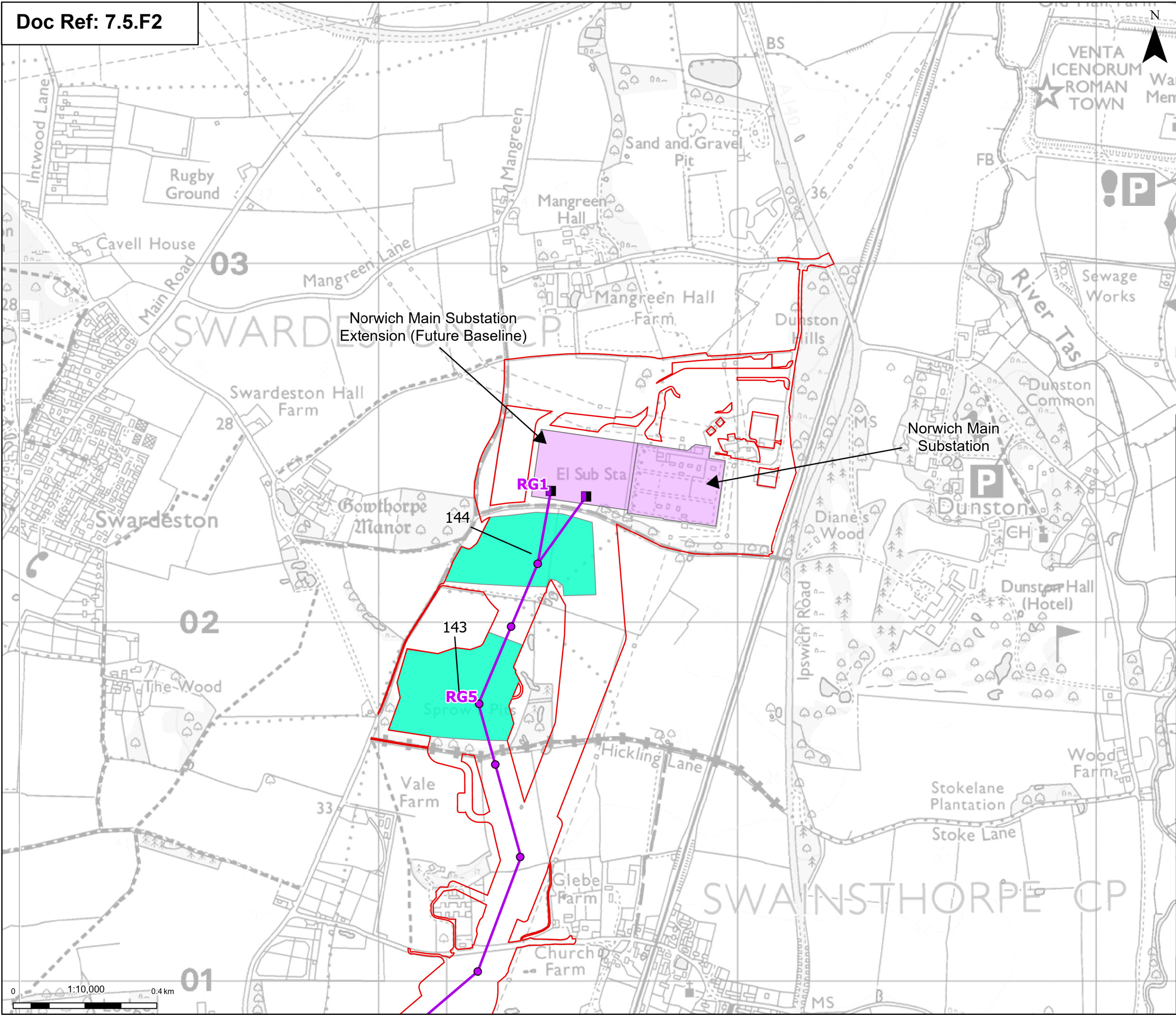
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Figure 2 Proposed Archaeological Mitigation for Priority Evaluation Areas





Order limits

Sheet index outline

Proposed project design details

Proposed full line tension gantry

Proposed standard lattice pylon location

Proposed overhead line alignment

Norwich Main Substation

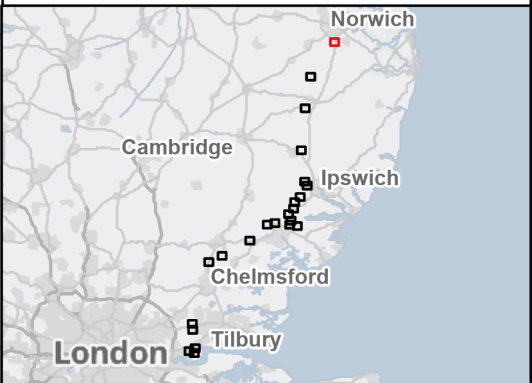
Norwich Main Substation Extension (future baseline)

Discipline specific constraints

Proposed Archaeological Mitigation

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:
nationalgrid Norwich to Tilbury

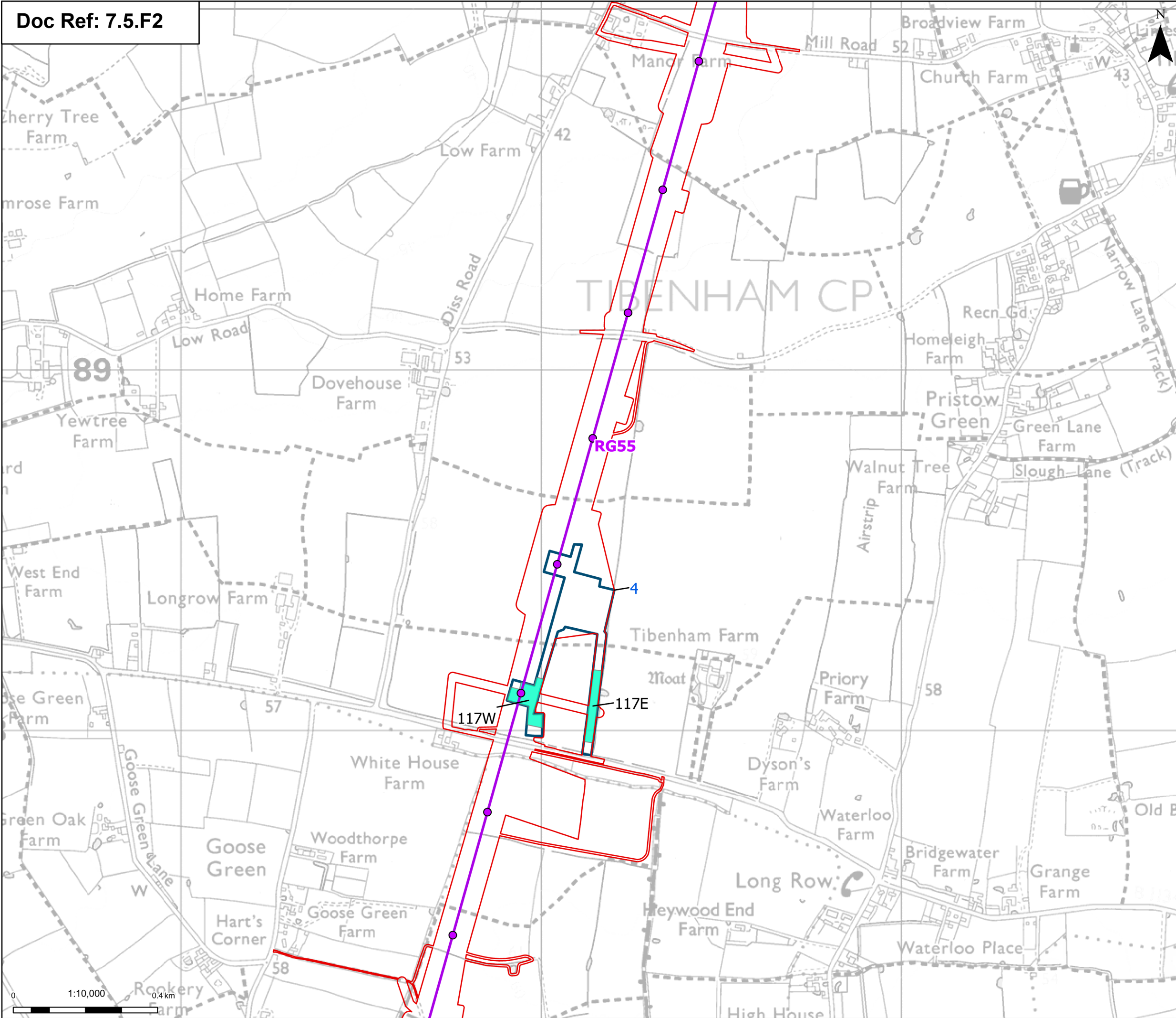
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
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Designed	P. Weston	Date	July 26
Drawn	S.Sarkar	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

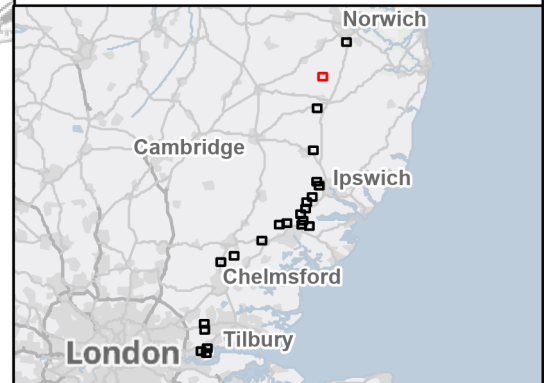
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-  Order limits
-  Sheet index cutline
- Proposed project design details**
 -  Proposed standard lattice pylon location
 -  Proposed overhead line alignment
- Discipline specific constraints**
 -  Proposed Archaeological Mitigation
 -  Priority Archaeological Trial Trenching Areas

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid PROJECT:
Norwich to
Tilbury

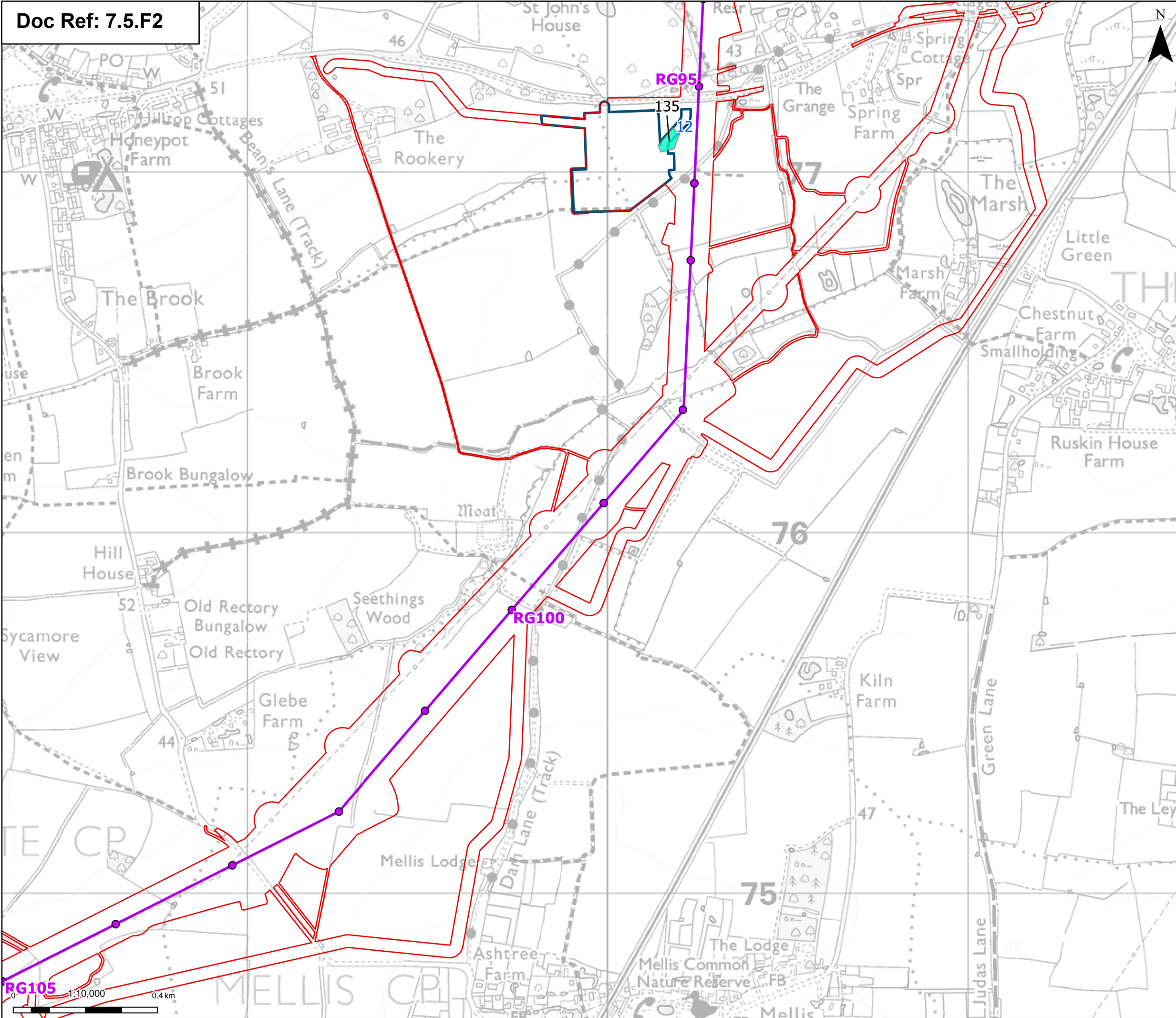
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Regulation 5(2)(a)&(m)

Title: Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
Page 2 of 23

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Approved	K. Burrows	Date	July 26
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Accepted as Concept Stage

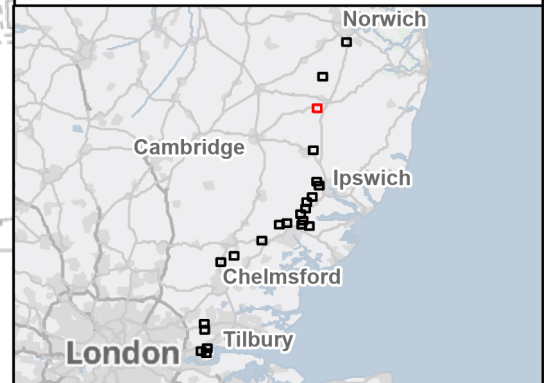
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The legend is organized into three main sections: Order limits, Proposed project design details, and Discipline specific constraints.

- Order limits:** Represented by a red rectangle.
- Proposed project design details:**
 - Proposed standard lattice pylon location: Represented by a purple circle.
 - Proposed overhead line alignment: Represented by a purple line.
- Discipline specific constraints:**
 - Proposed Archaeological Mitigation: Represented by a light blue rectangle.
 - Priority Archaeological Trial Trenching Areas: Represented by a blue rectangle.

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:
Norwich to
Tilbury

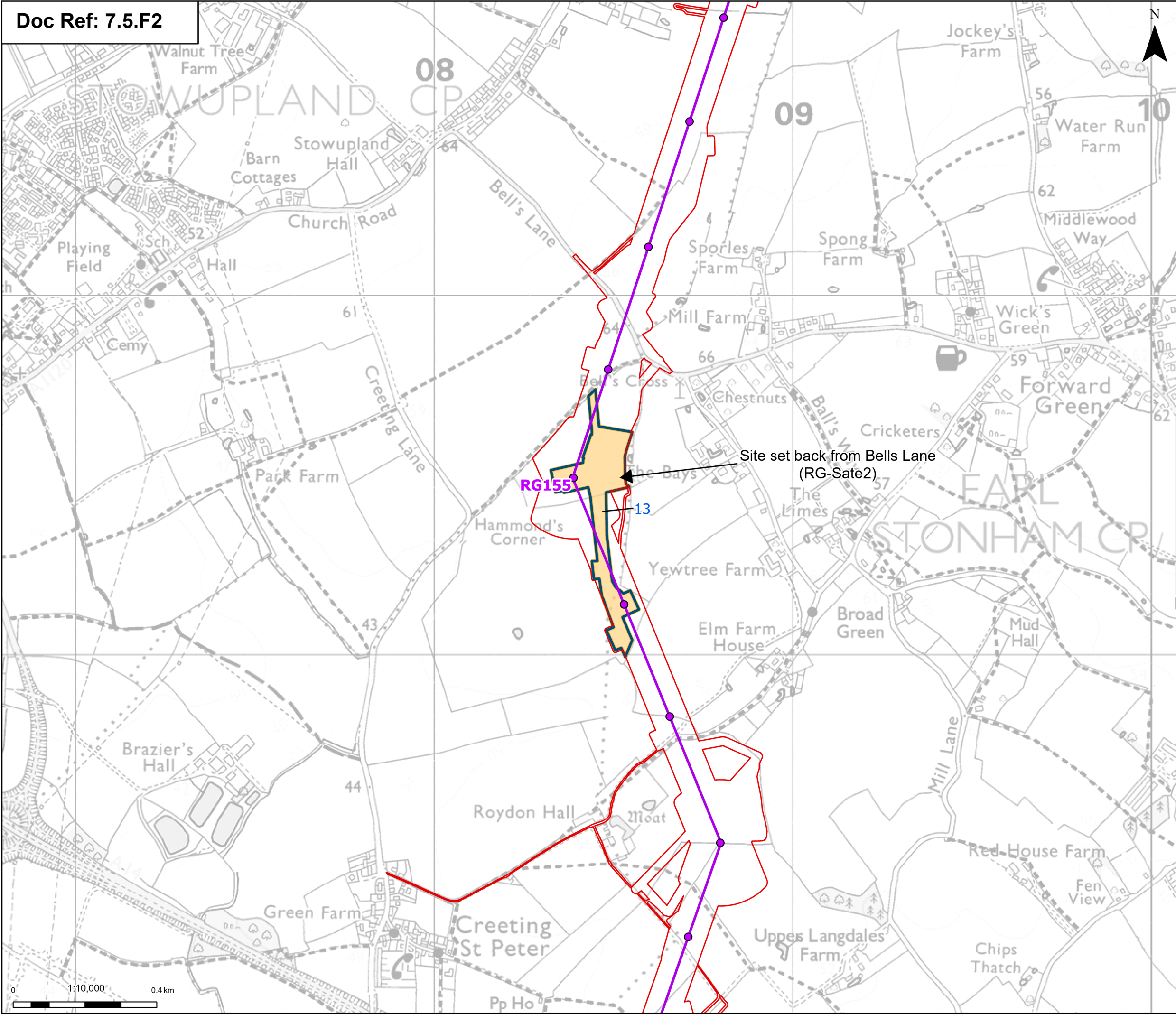
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Regulation 5(2)(a)&(m)

Title: **Figure 2 - Proposed
Archaeological Mitigation
for Priority Evaluation Areas
Page 3 of 23**

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Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Accepted as Concept Stage

Drawing Number:	Revision:
10059280-ARC-EHR-ZZ-DR-ZZ-00913	C



Order limits

Sheet index outline

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

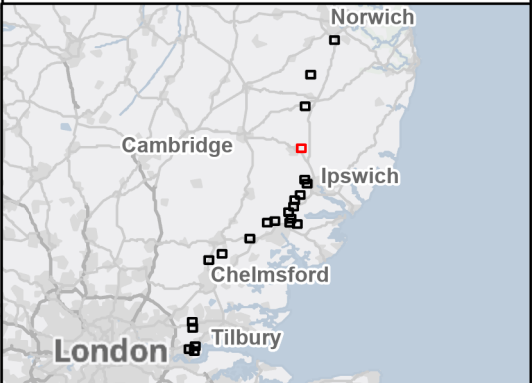
Discipline specific constraints

Priority Archaeological Trial Trenching Areas

Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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PROJECT:

nationalgrid

Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:

Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
Page 4 of 23

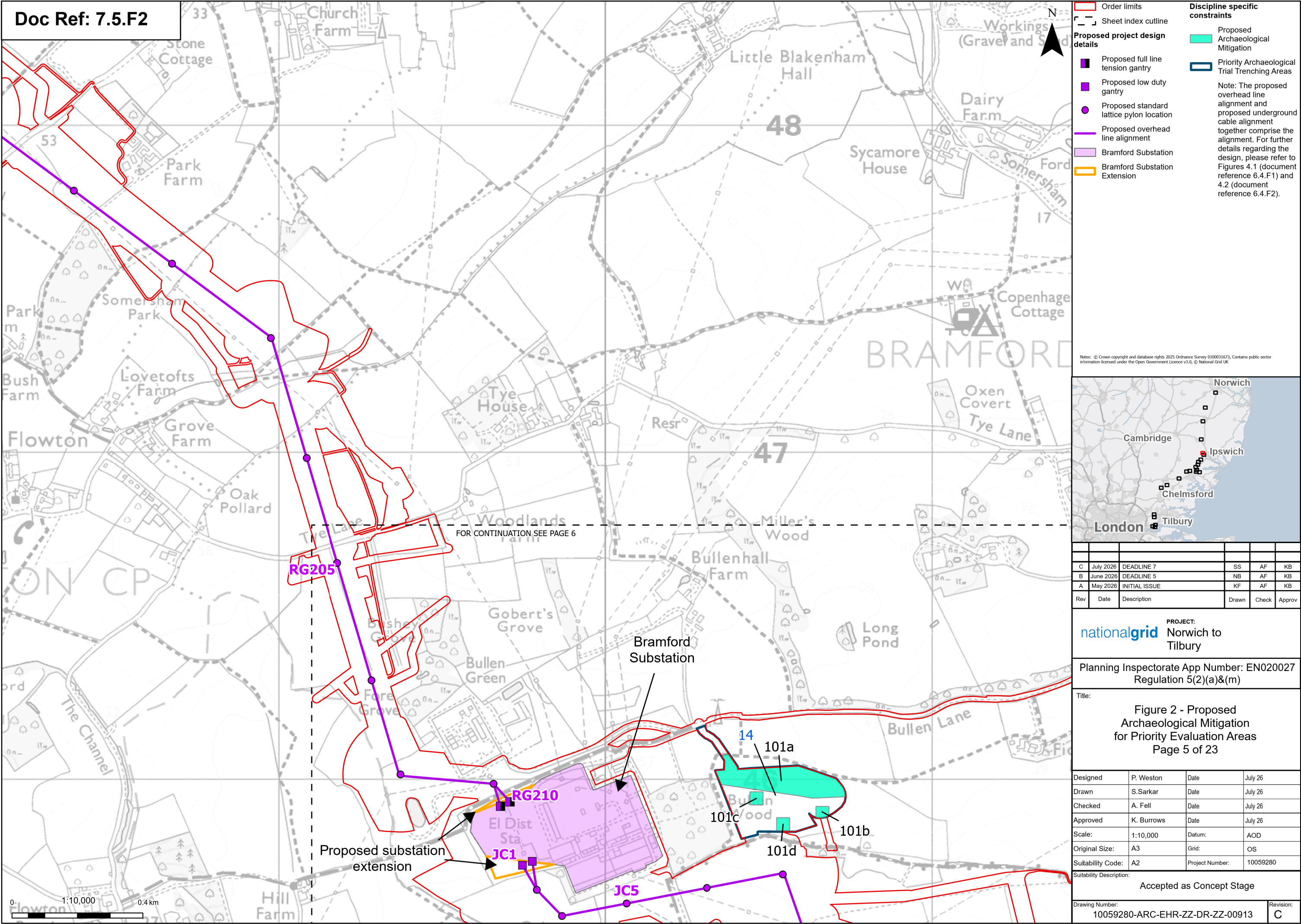
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Checked	A. Fell	Date	July 26
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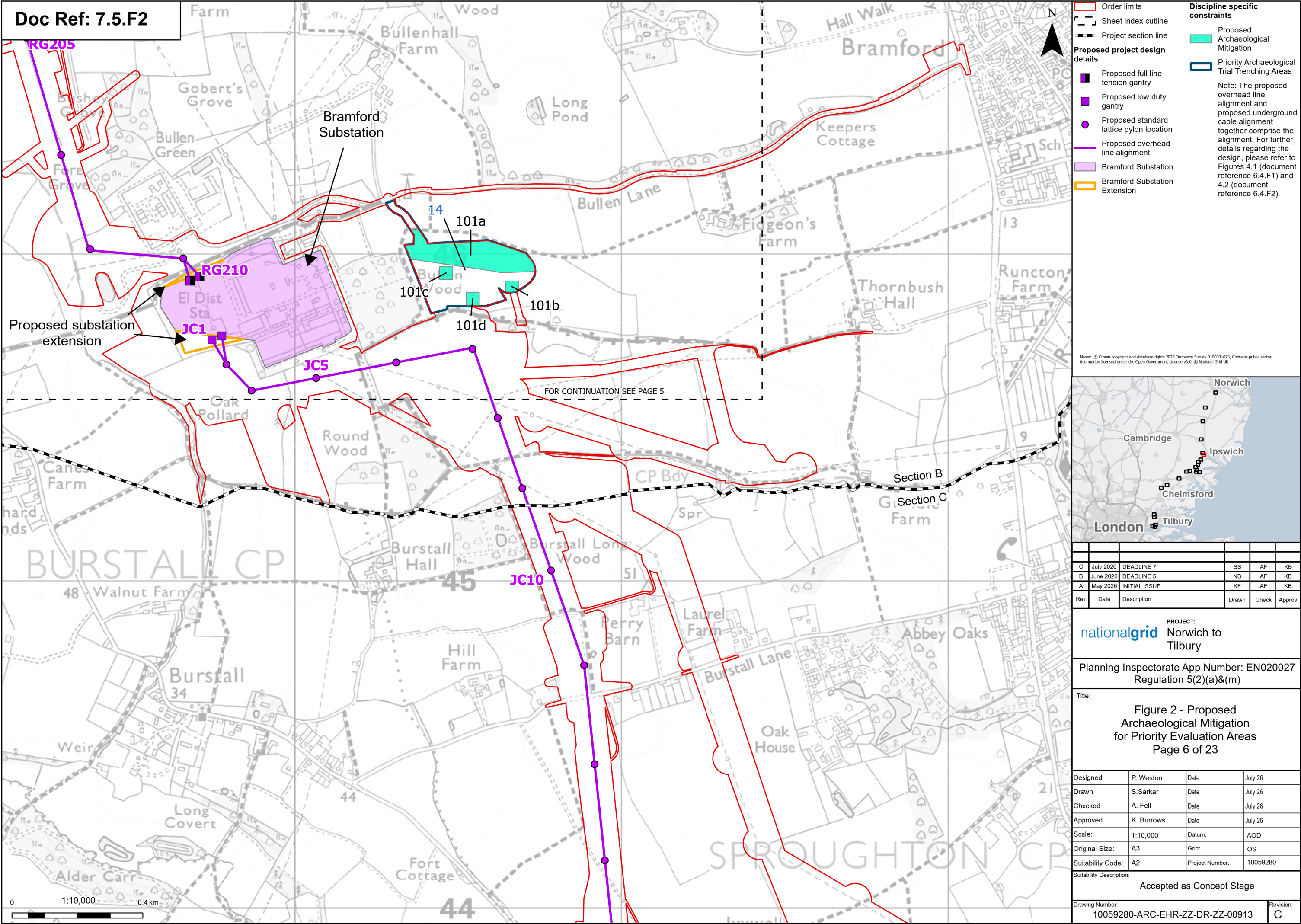
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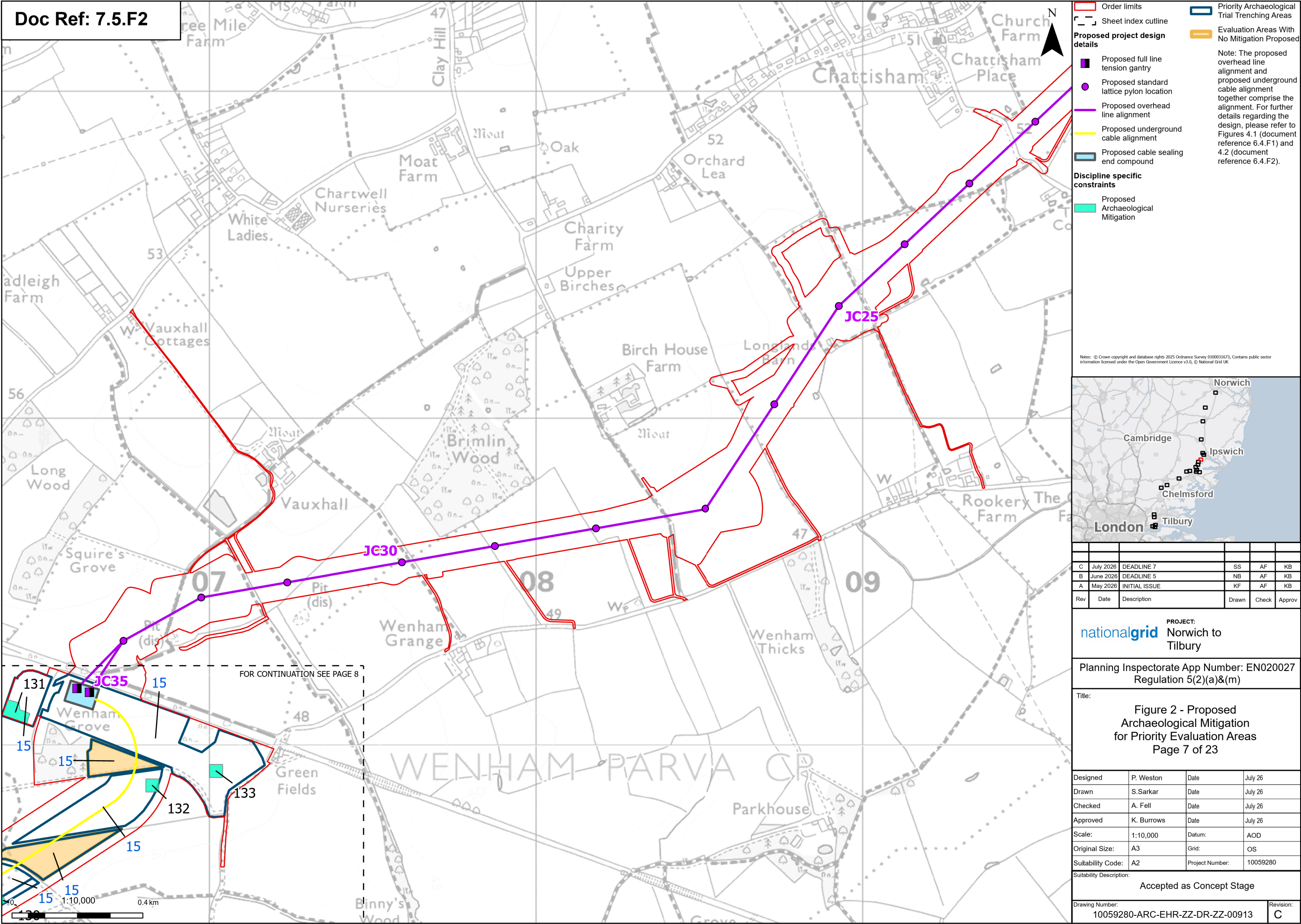
Accepted as Concept Stage

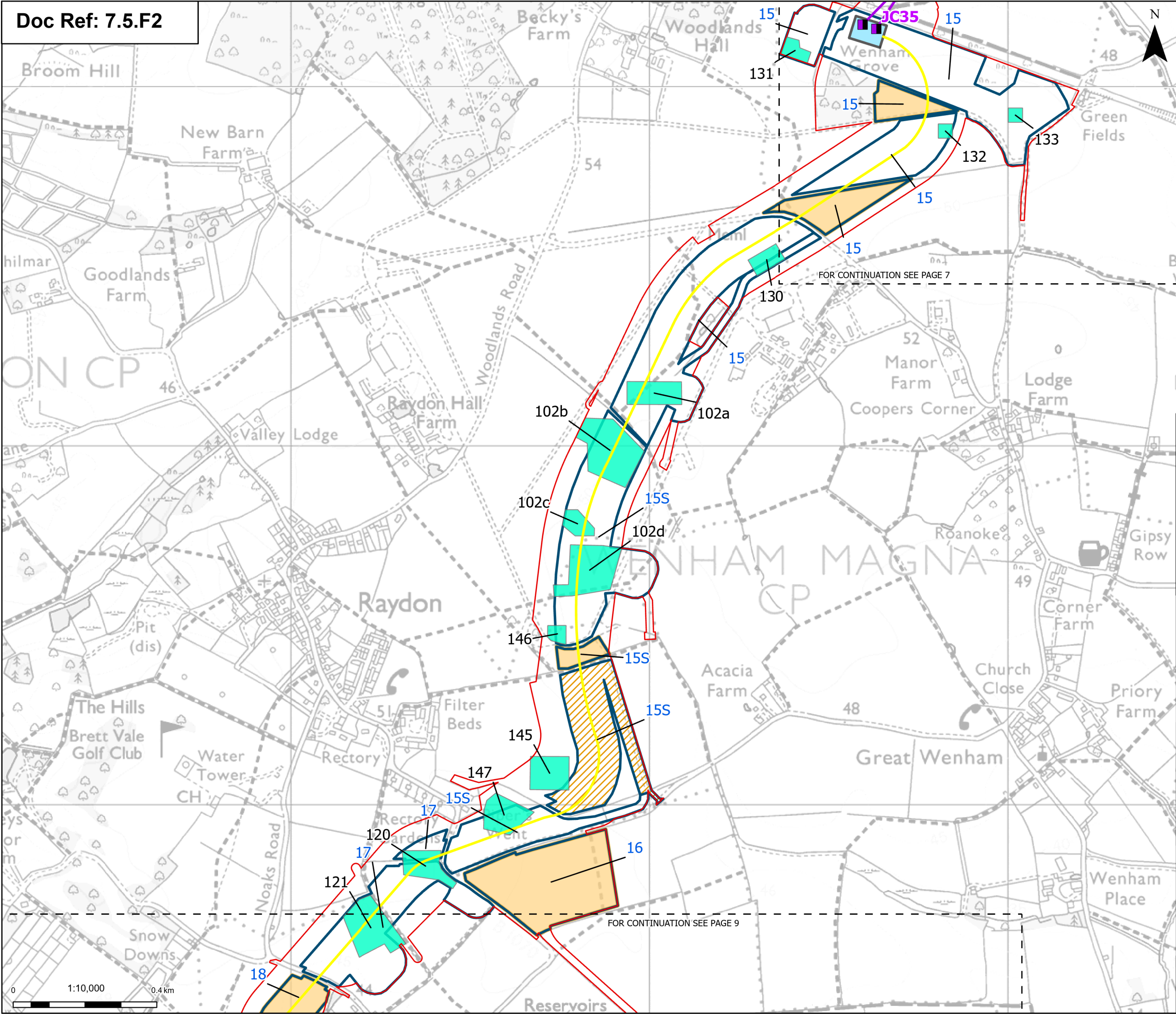
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- Proposed project design details**

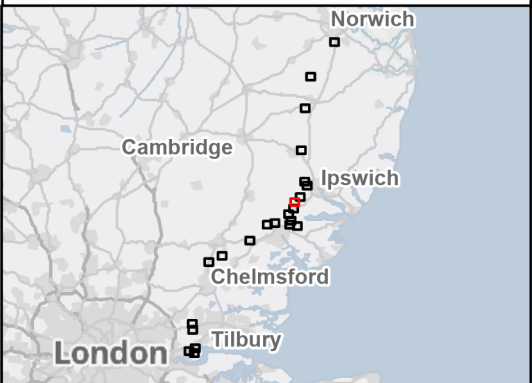
 - Order limits
 - Sheet index cutline
 - Proposed full line tension gantry
 - Proposed overhead line alignment
 - Proposed underground cable alignment
 - Proposed cable sealing end compound

Discipline specific constraints

 - Proposed Archaeological Mitigation
 - Priority Archaeological Trial Trenching Areas
 - Evaluation Areas With Mitigation Not Yet Defined
 - Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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nationalgrid PROJECT: Norwich to Tilbury

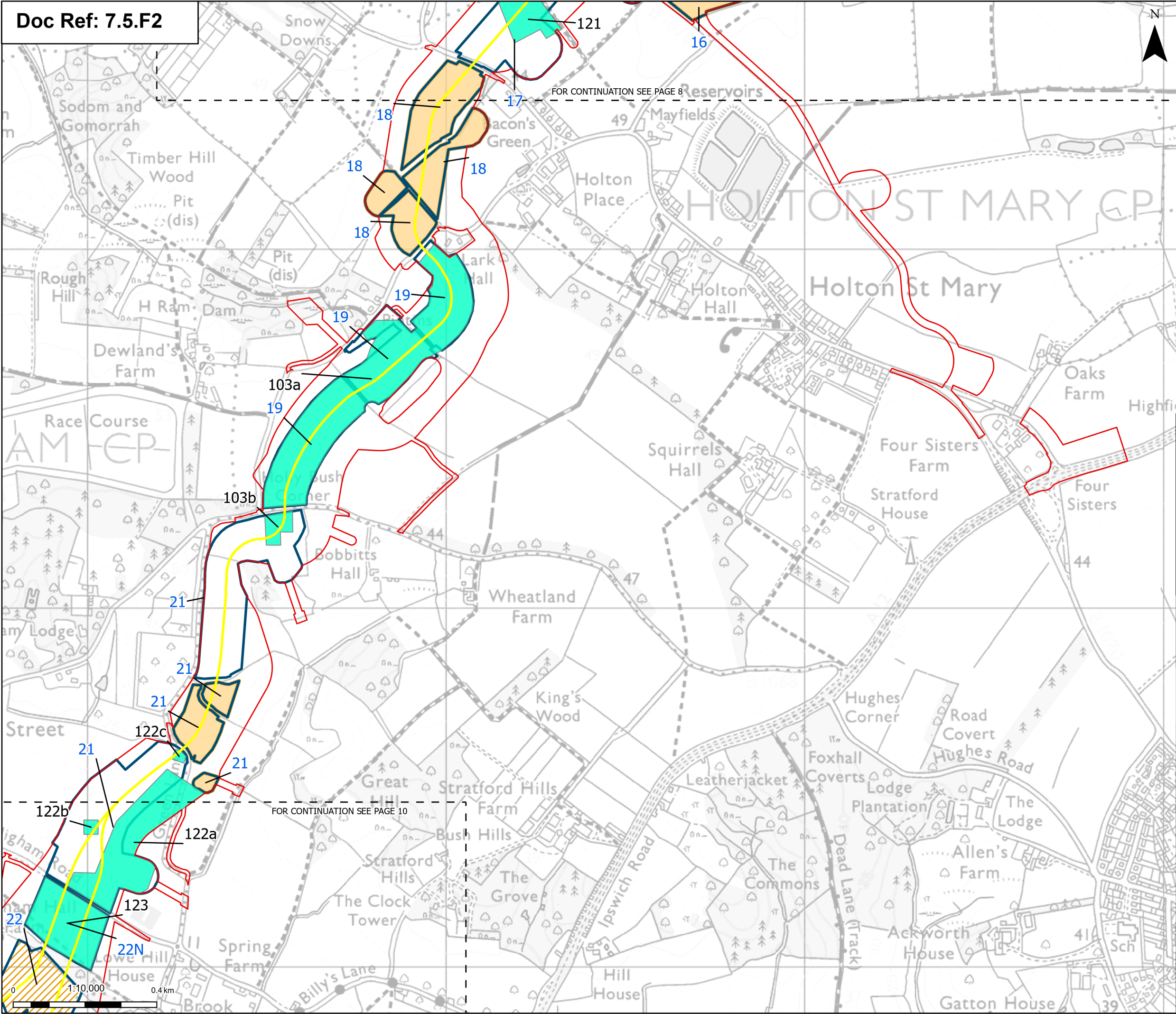
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Regulation 5(2)(a)&(m)

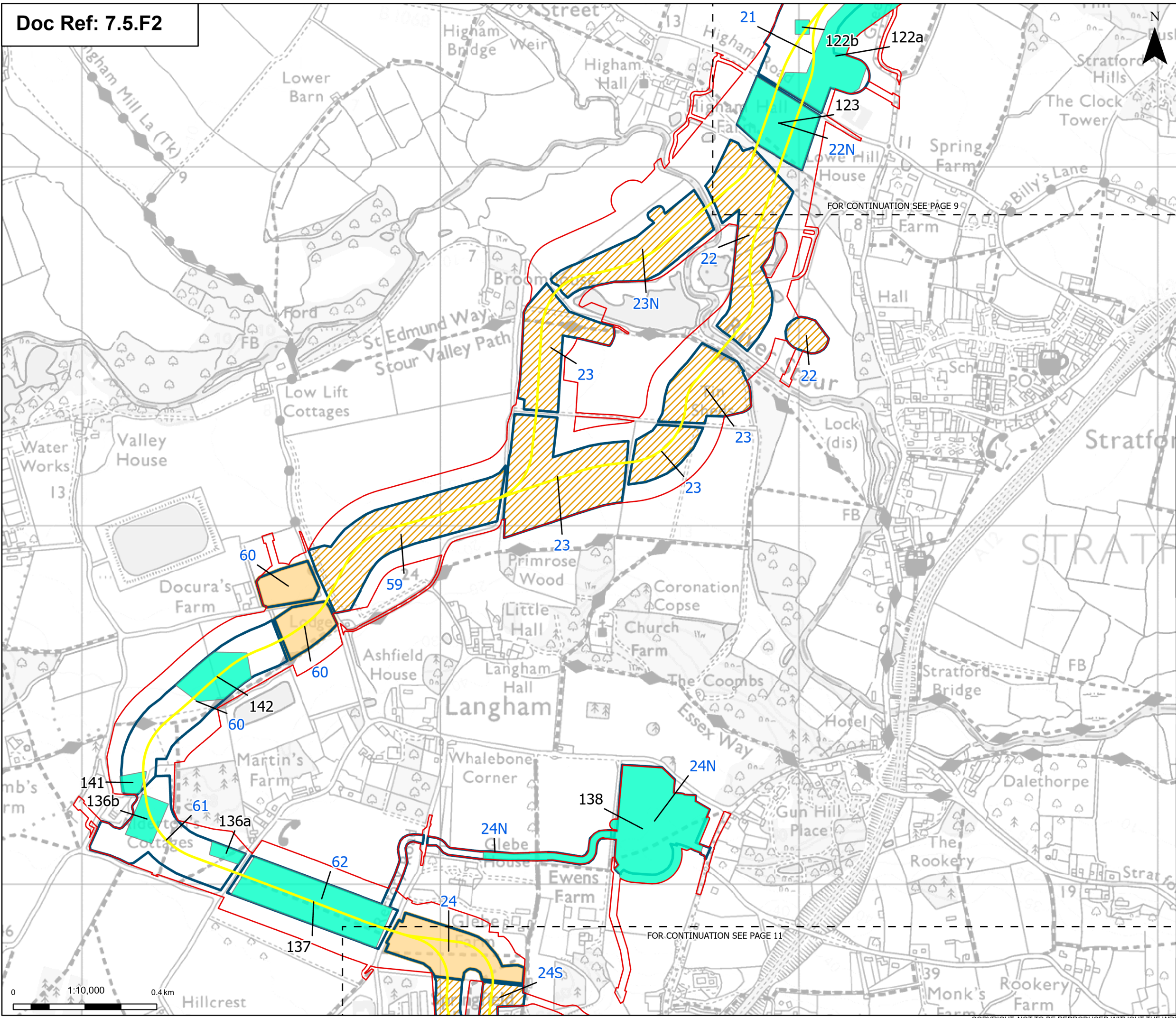
Title: **Figure 2 - Proposed
Archaeological Mitigation
for Priority Evaluation Areas**
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Drawn	S.Sarkar	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Accepted as Concept Stage

Drawing Number:	Revision:
10059280-ARC-EHR-ZZ-DR-ZZ-00913	C





Order limits

Sheet index outline

Proposed project design details

Proposed underground cable alignment

Discipline specific constraints

Proposed Archaeological Mitigation

Priority Archaeological Trial Trenching Areas

Evaluation Areas With Mitigation Not Yet Defined

Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Norwich

Ipswich

Chelmsford

Tilbury

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Rev	Date	Description	Drawn	Check	Approv

PROJECT:

nationalgrid

Norwich to Tilbury

Planning Inspectorate App Number: EN020027 Regulation 5(2)(a)&(m)

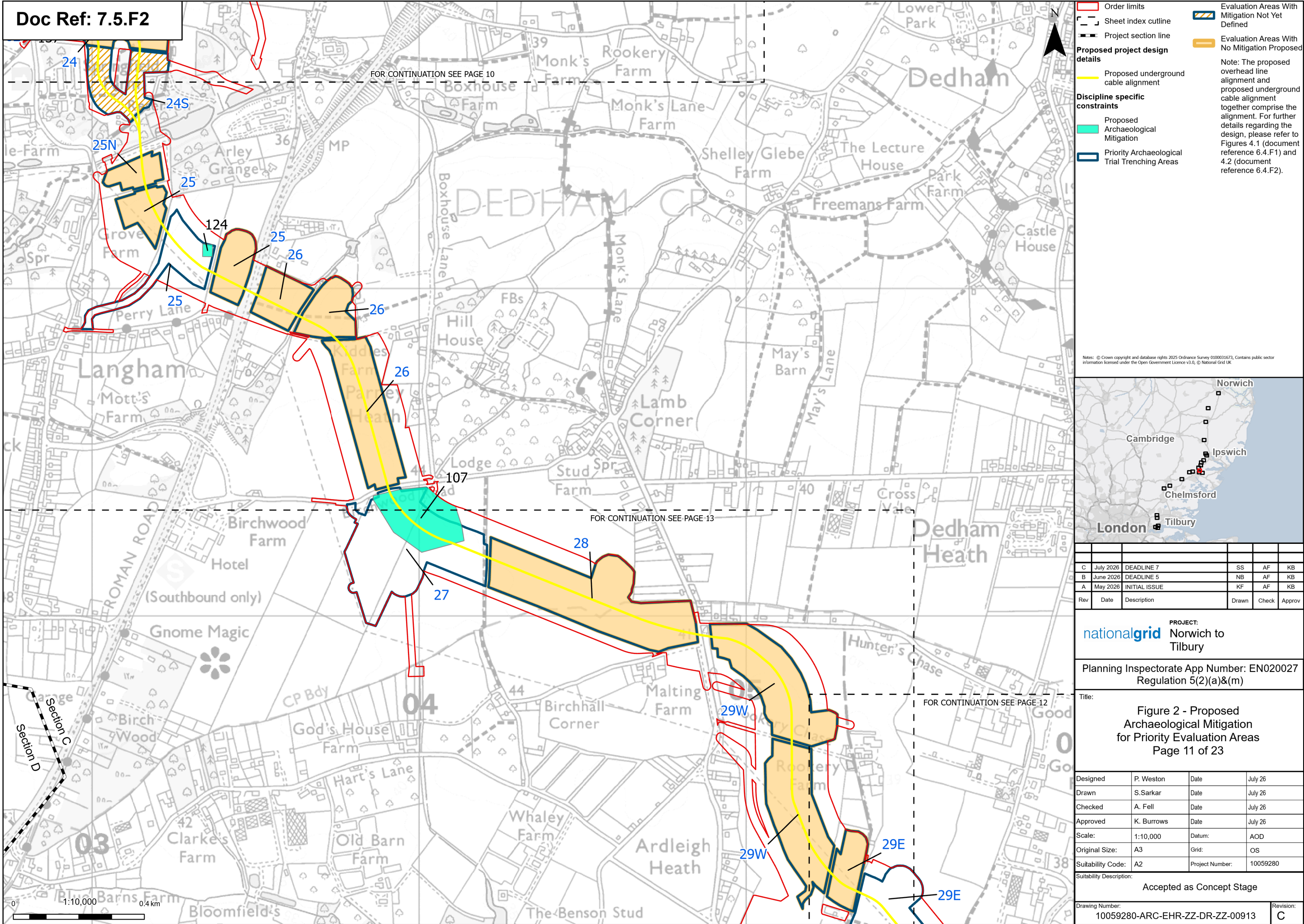
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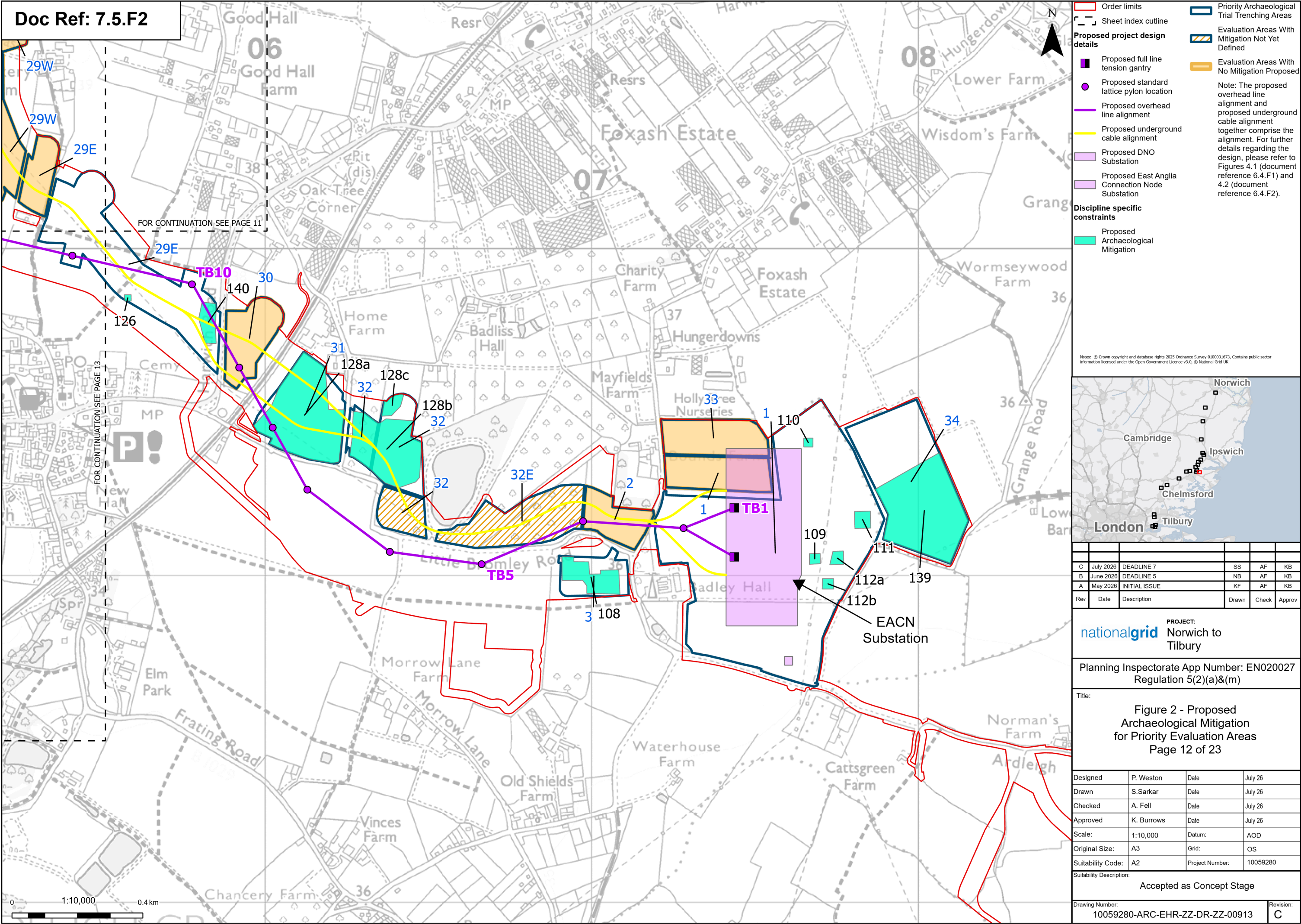
Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
Page 10 of 23

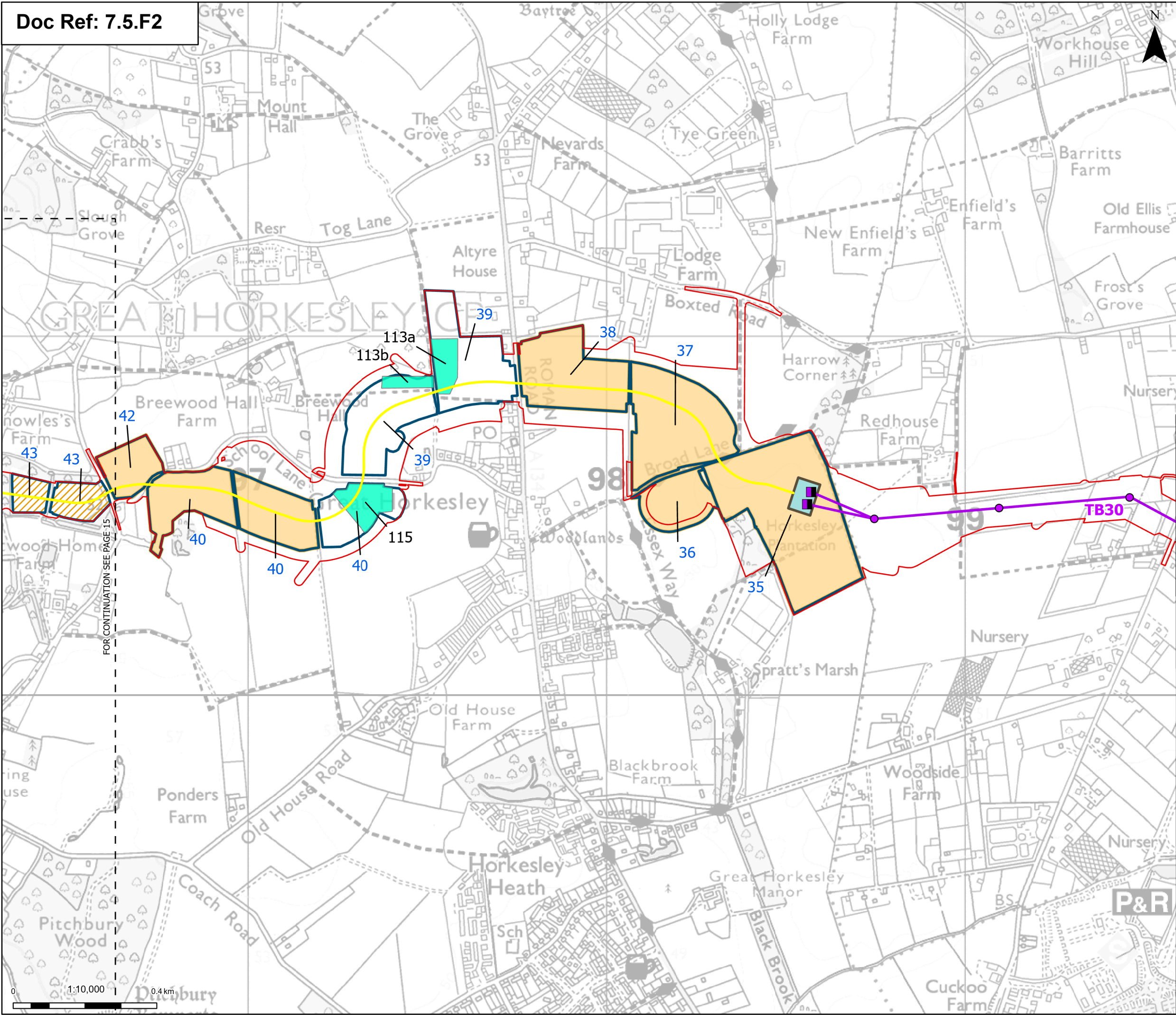
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280
Suitability Description:			
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Order limits

Sheet index outline

Proposed project design details

Proposed full line tension gantry

Proposed standard lattice pylon location

Proposed overhead line alignment

Proposed underground cable alignment

Proposed cable sealing end compound

Discipline specific constraints

Proposed Archaeological Mitigation

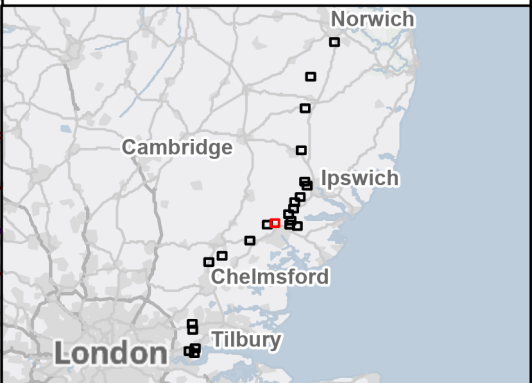
Priority Archaeological Trial Trenching Areas

Evaluation Areas With Mitigation Not Yet Defined

Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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B	June 2026	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB

PROJECT:
nationalgrid Norwich to Tilbury

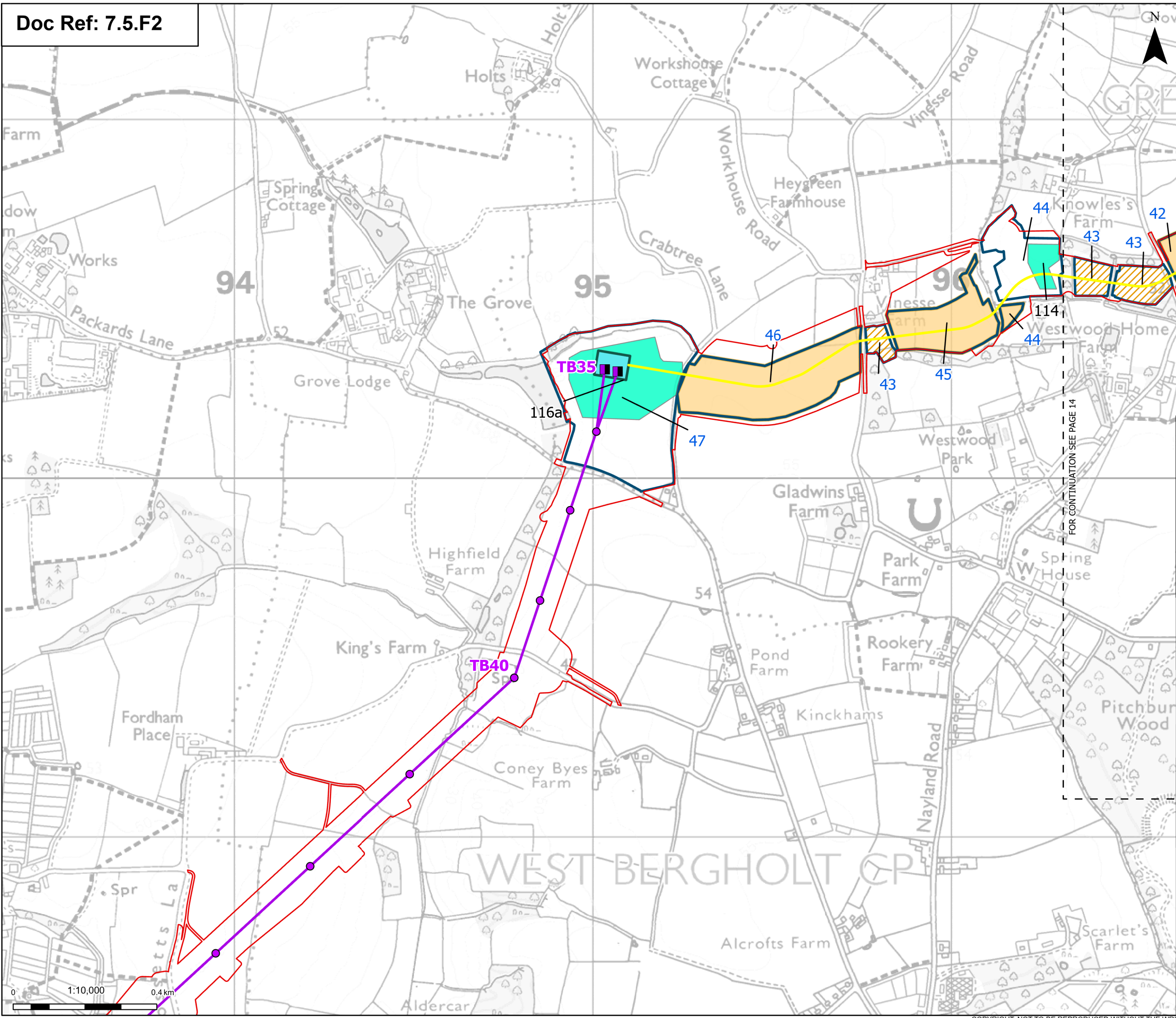
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Regulation 5(2)(a)&(m)

Title:
Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
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Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EHR-ZZ-DR-ZZ-00913	Revision: C
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Order limits

Sheet index outline

Proposed project design details

Proposed full line tension gantry

Proposed standard lattice pylon location

Proposed overhead line alignment

Proposed underground cable alignment

Proposed cable sealing end compound

Discipline specific constraints

Proposed Archaeological Mitigation

Priority Archaeological Trial Trenching Areas

Evaluation Areas With Mitigation Not Yet Defined

Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Rev	Date	Description	Drawn	Check	Approv

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Norwich to Tilbury

Planning Inspectorate App Number: EN020027 Regulation 5(2)(a)&(m)

Title:

Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas

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Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
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Accepted as Concept Stage

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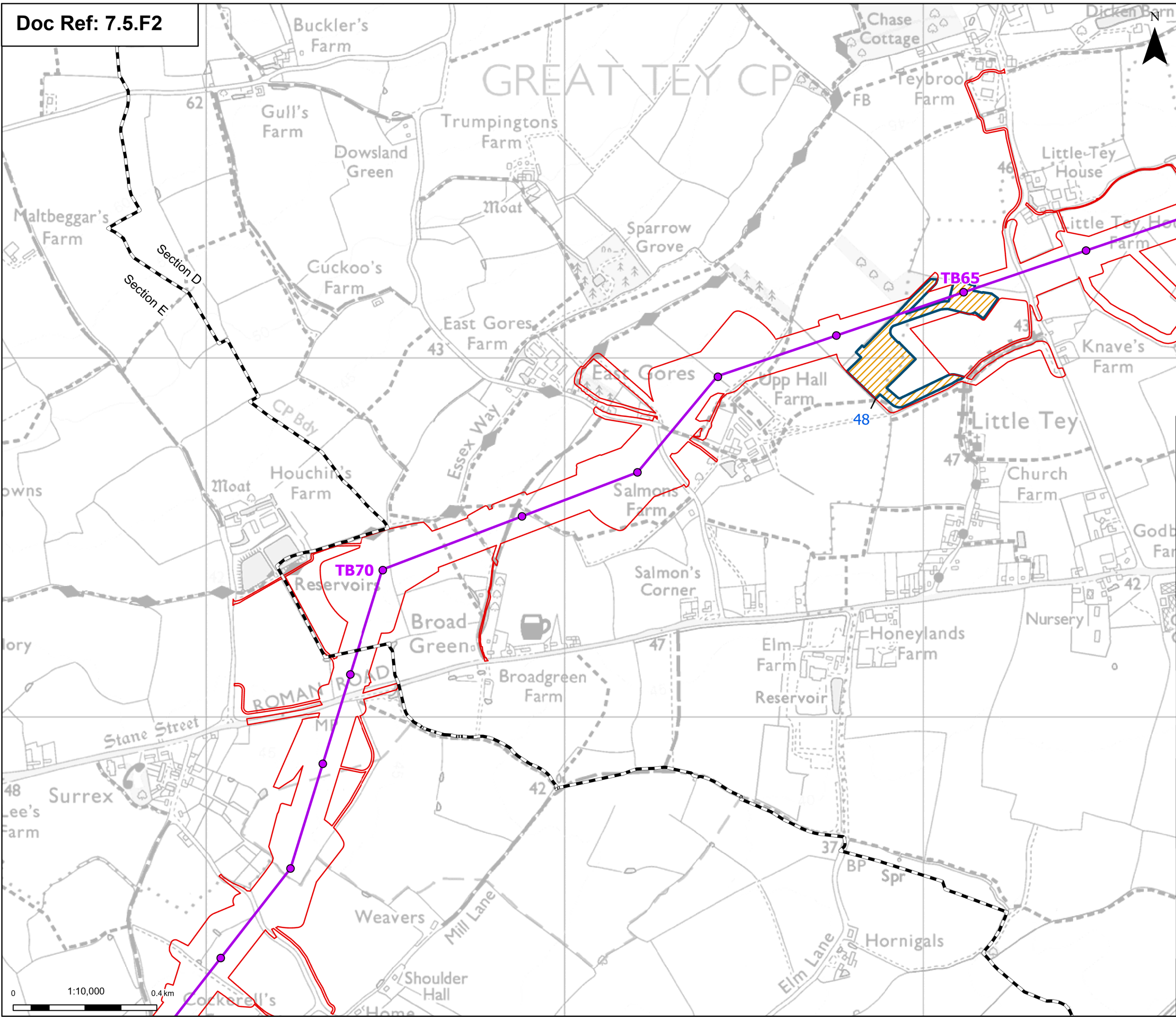
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Order limits

Sheet index outline

Project section line

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Discipline specific constraints

Evaluation Areas With Mitigation Not Yet Defined

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
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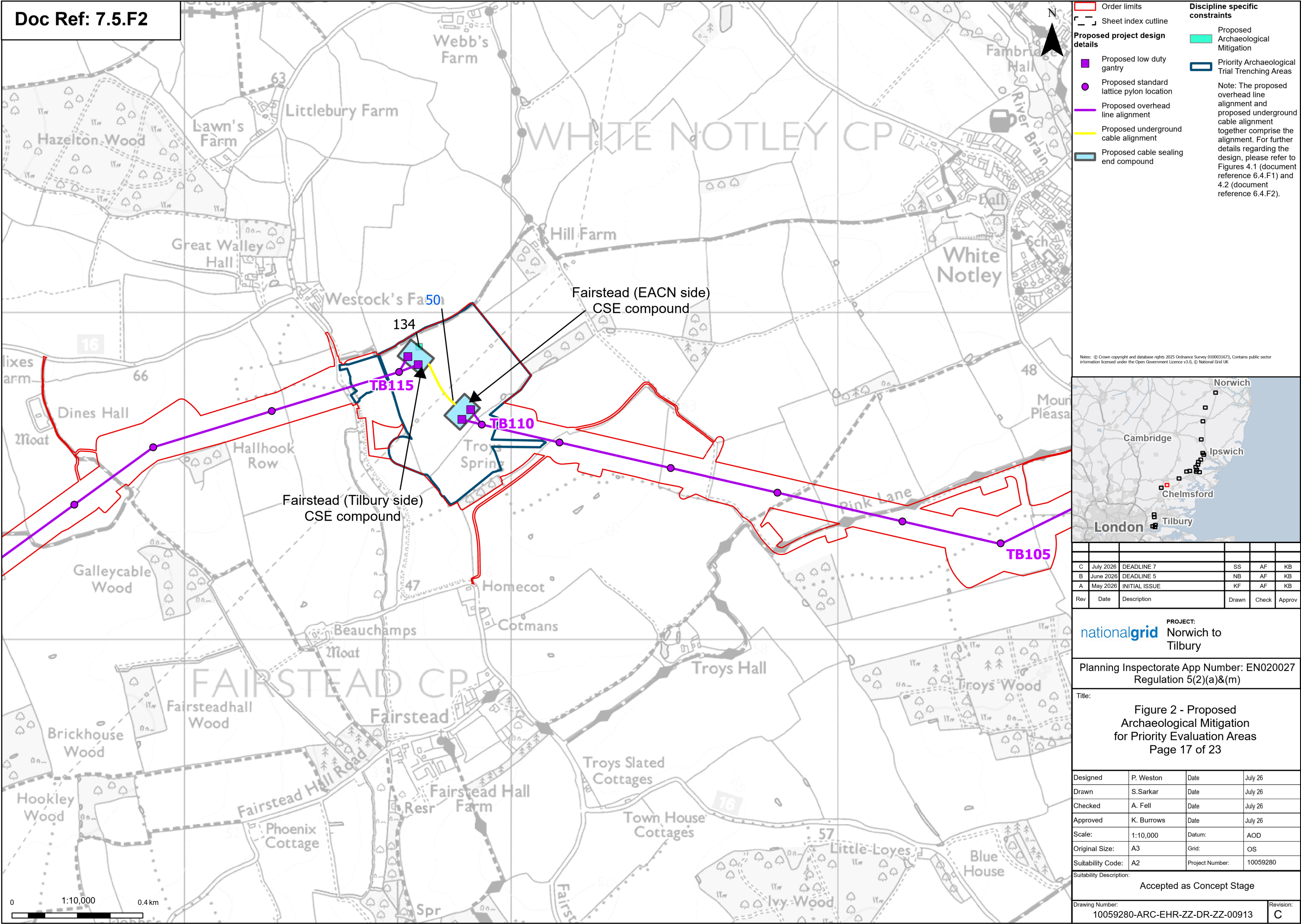
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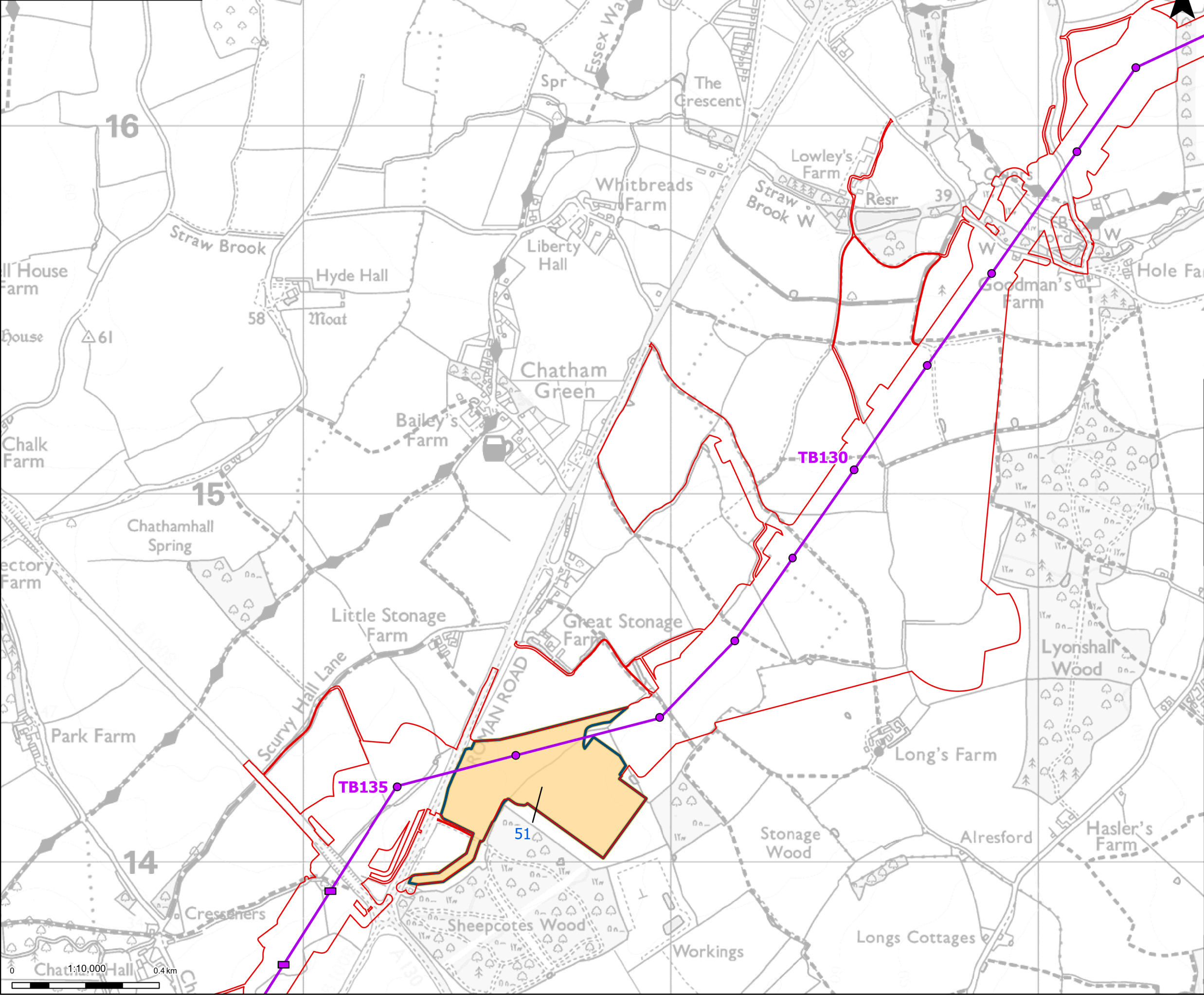
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Order limits

Sheet index outline

Proposed project design details

Proposed low height pylon location

Proposed standard lattice pylon location

Proposed overhead line alignment

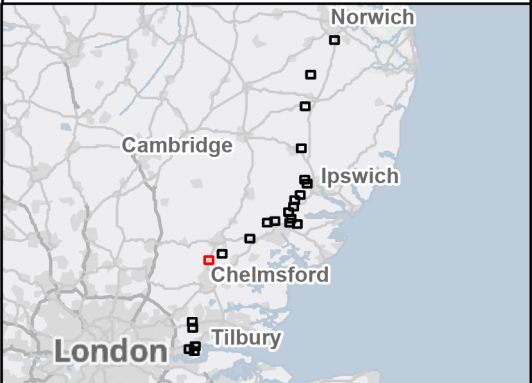
Discipline specific constraints

Priority Archaeological Trial Trenching Areas

Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

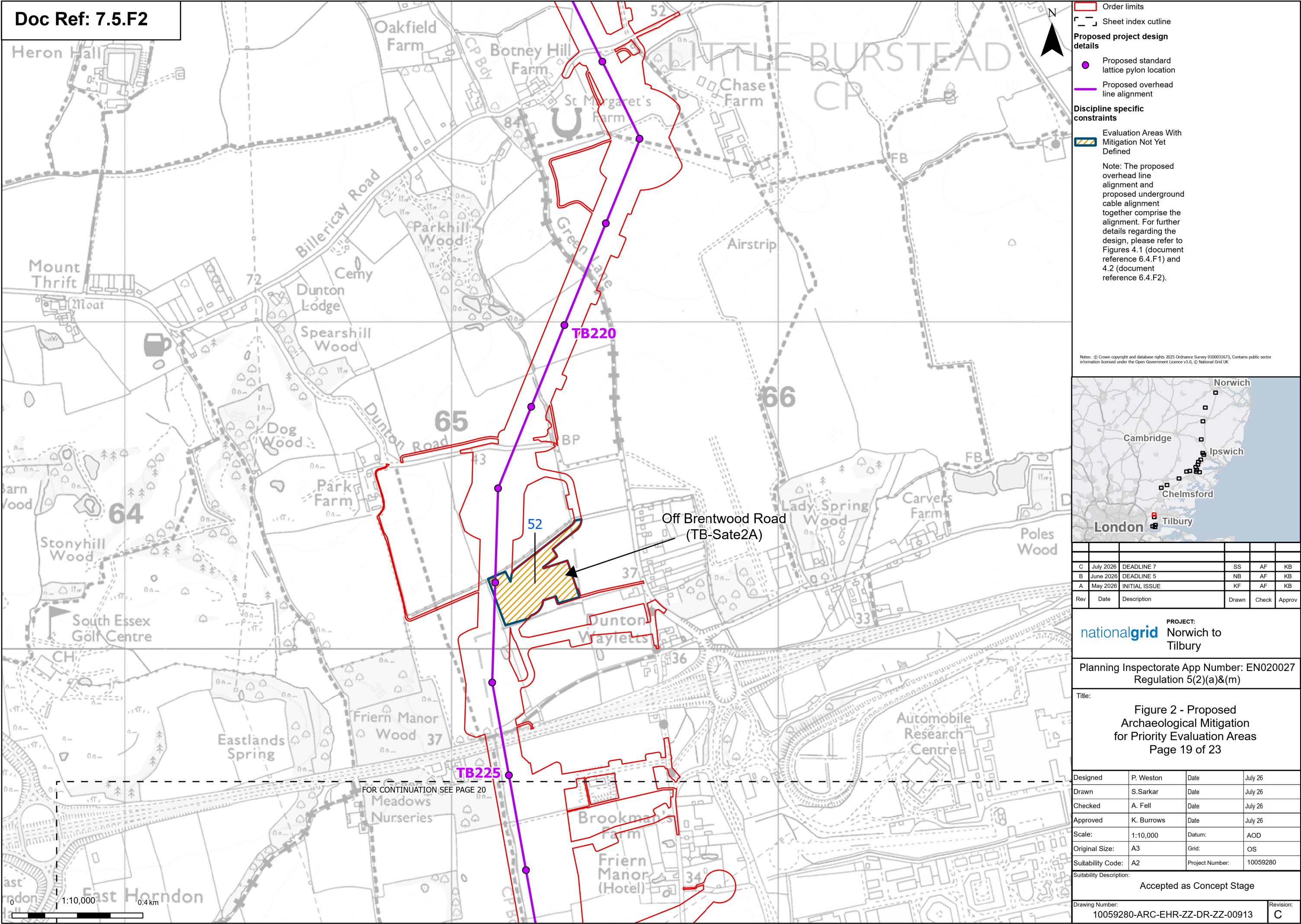
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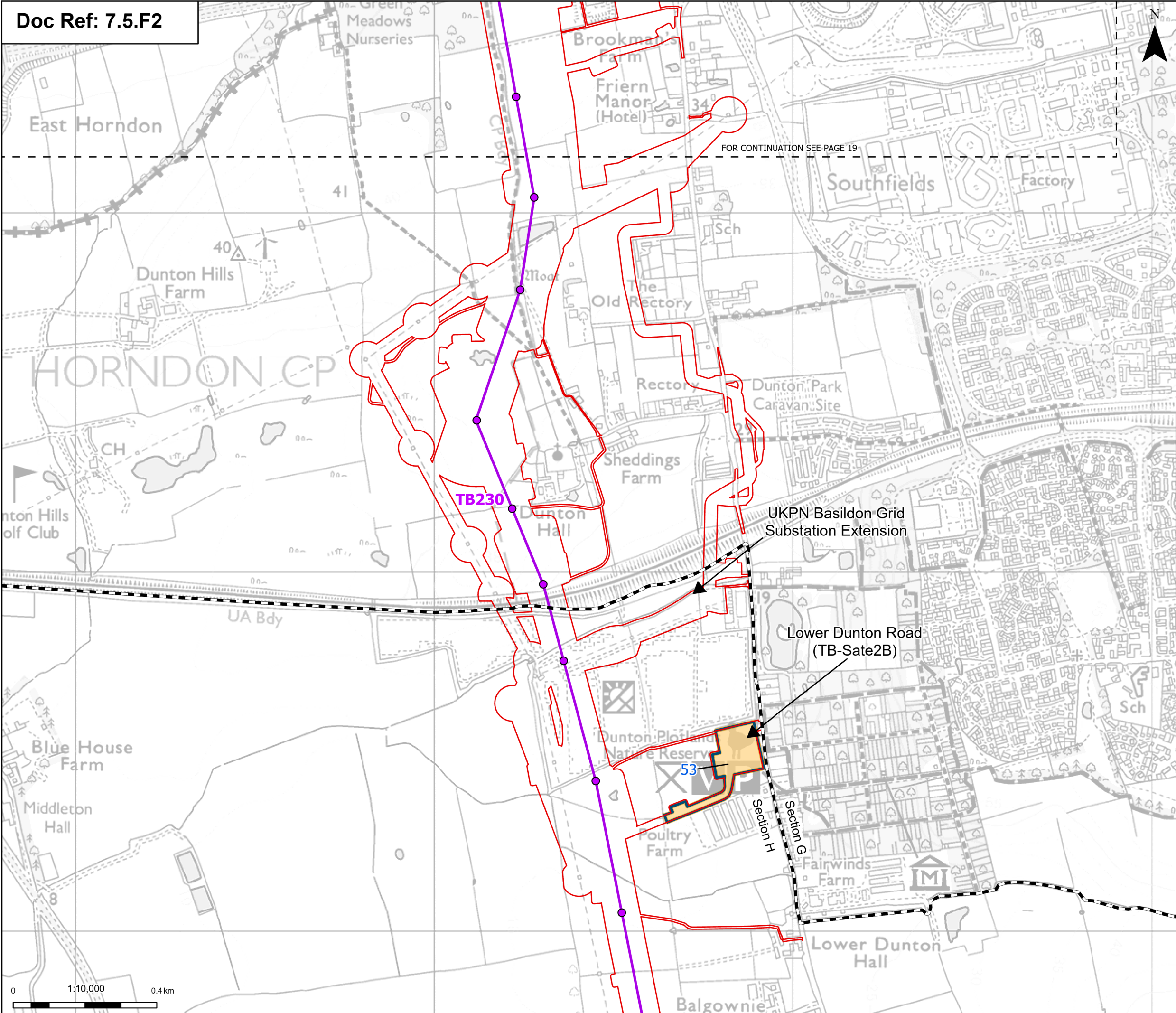
Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
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Drawing Number:	Revision:
10059280-ARC-EHR-ZZ-DR-ZZ-00913	C

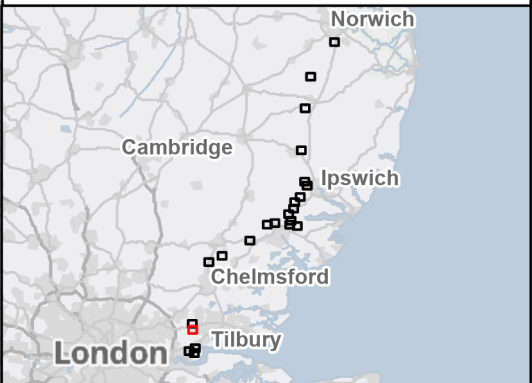




-  Order limits
 -  Sheet index cutline
 -  Project section line
 - Proposed project design details**
 -  Proposed standard lattice pylon location
 -  Proposed overhead line alignment
 - Discipline specific constraints**
 -  Priority Archaeological Trial Trenching Areas
 -  Evaluation Areas With No Mitigation Proposed

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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C	July 2026	DEADLINE 7	SS	AF	KB
B	June 2026	DEADLINE 5	NB	AF	KB
A	May 2026	INITIAL ISSUE	KF	AF	KB
Rev	Date	Description	Drawn	Check	Approv

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Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:

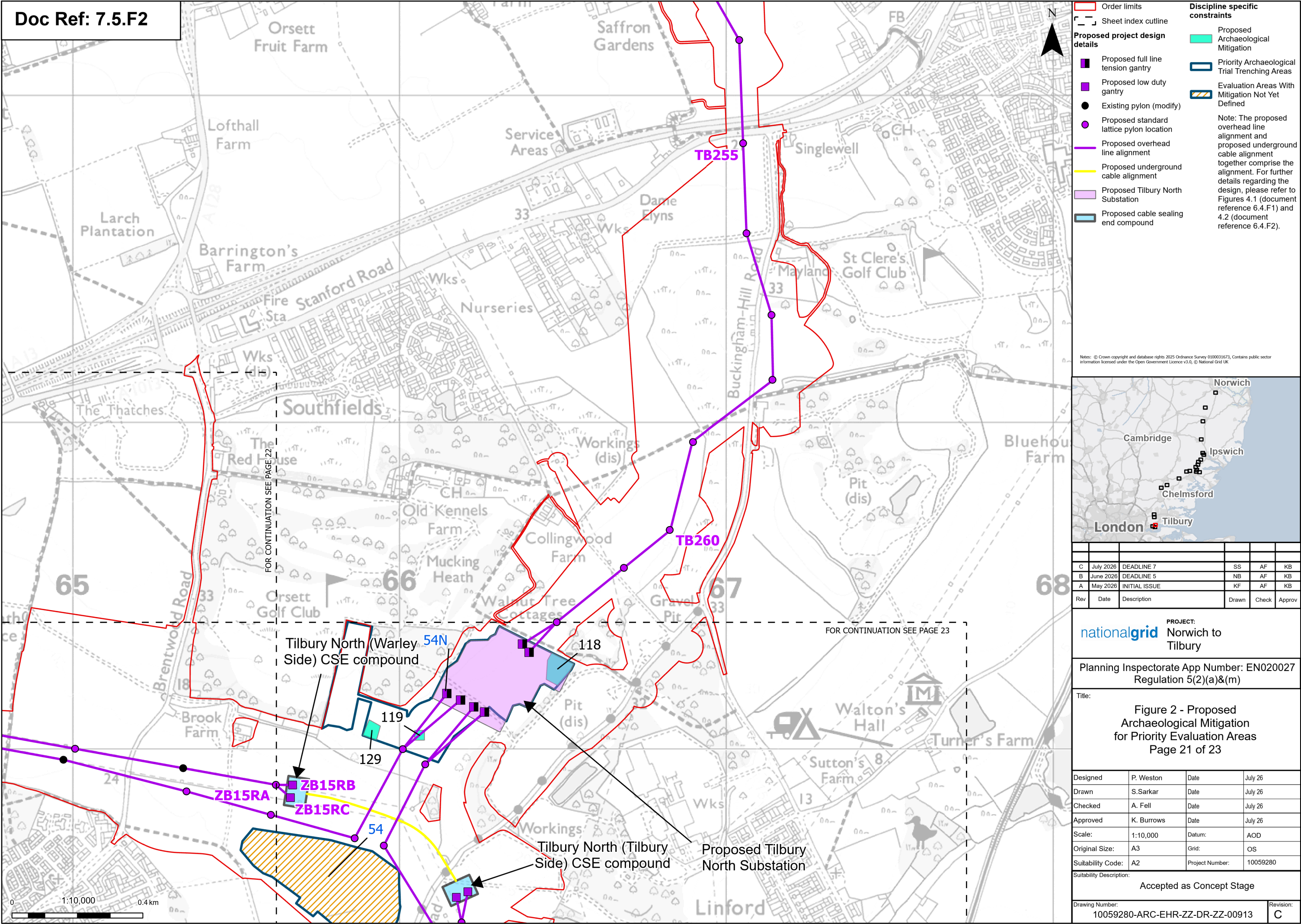
Figure 2 - Proposed
Archaeological Mitigation
for Priority Evaluation Areas
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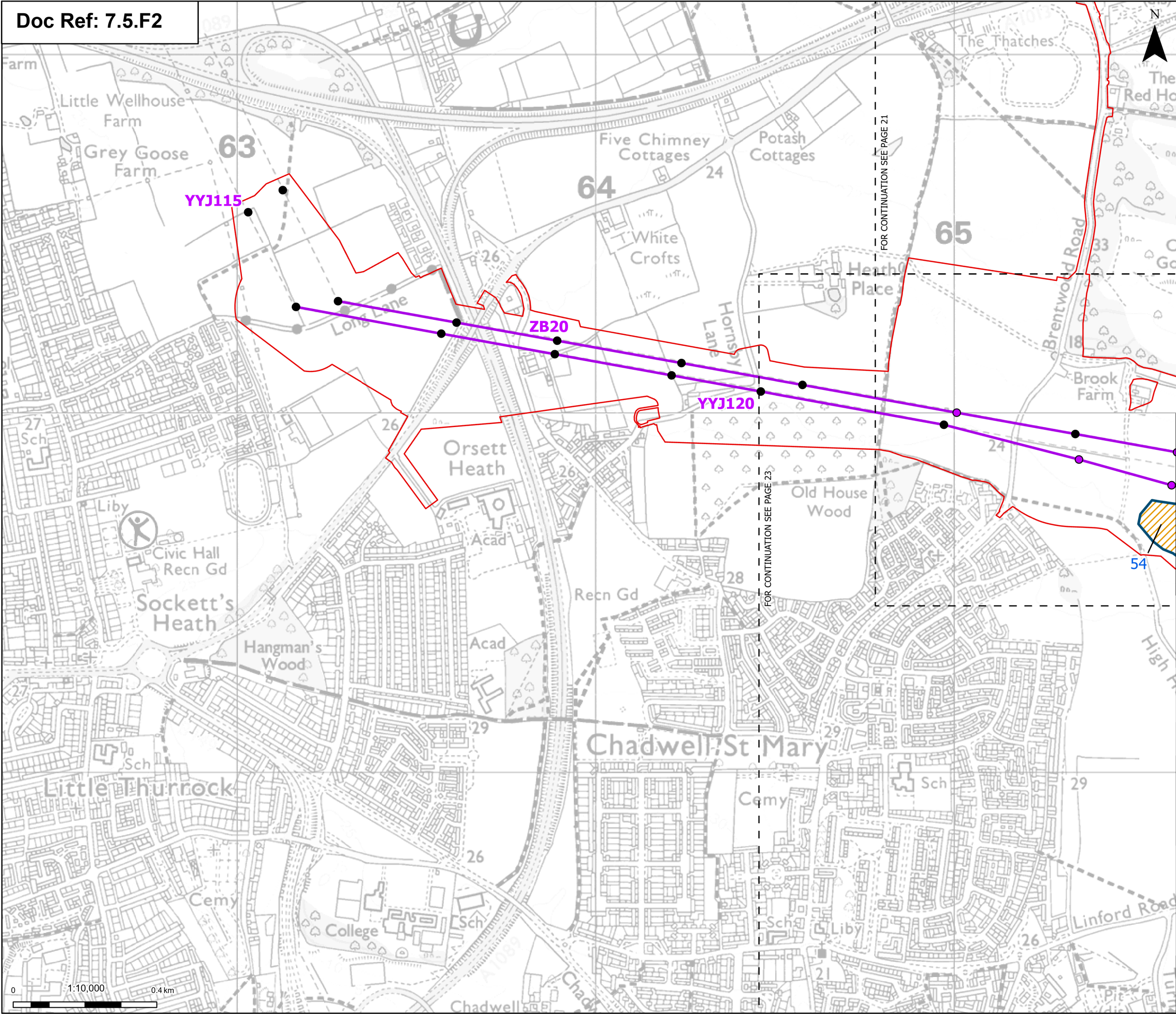
Designed	P. Weston	Date	July 26
Drawn	S.Sarkar	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:

Accepted as Concept Stage

Drawing Number: 10059280-ARC-EHR-ZZ-DR-ZZ-00913	Revision: C
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Order limits

Sheet index outline

Proposed project design details

Existing pylon (modify)

Proposed standard lattice pylon location

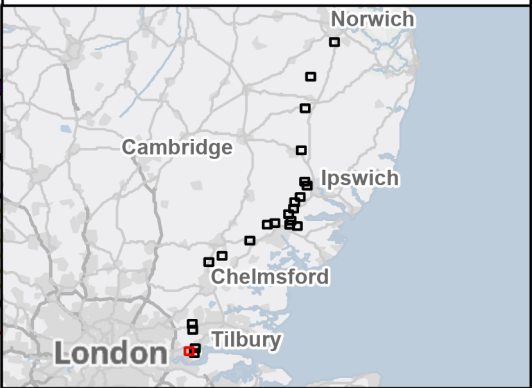
Proposed overhead line alignment

Discipline specific constraints

Evaluation Areas With Mitigation Not Yet Defined

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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Norwich to Tilbury

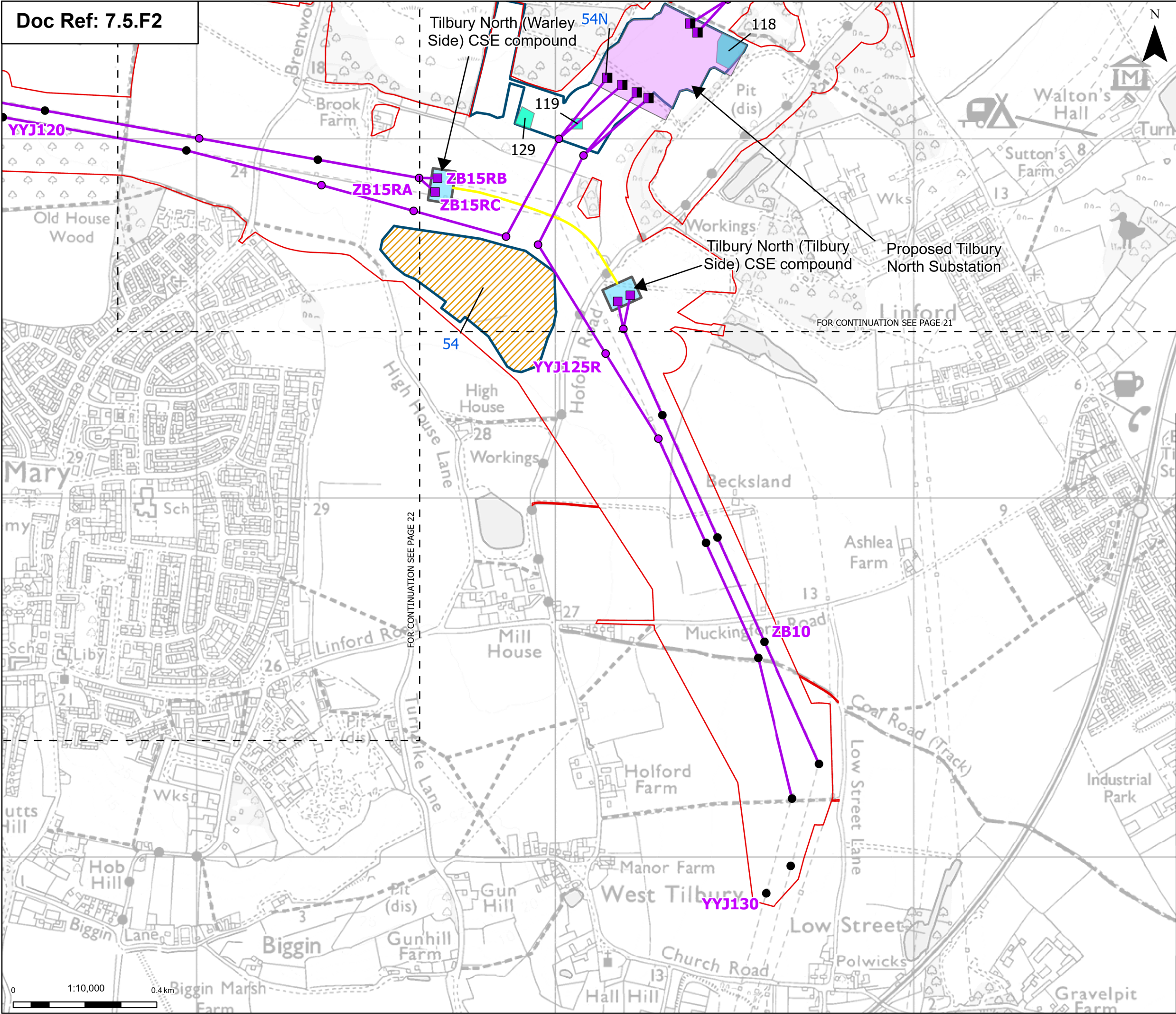
Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)&(m)

Title:
Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas
Page 22 of 23

Designed	P. Weston	Date	July 26
Drawn	S.Sarkar	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Rev	Date	Description	Drawn	Check	Approv

PROJECT: nationalgrid Norwich to Tilbury

Planning Inspectorate App Number: EN020027 Regulation 5(2)(a)&(m)

Title: Figure 2 - Proposed Archaeological Mitigation for Priority Evaluation Areas Page 23 of 23

Designed	P. Weston	Date	July 26
Drawn	S.Sarkar	Date	July 26
Checked	A. Fell	Date	July 26
Approved	K. Burrows	Date	July 26
Scale:	1:10,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

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