

AENC-ARC-ENV-REP-0150

Norwich to Tilbury

Volume 6: Environmental Statement

Document: 6.8.A3 Environmental Statement Appendix 8.3 -
Hedgerows Regulations Report - Clean Version

Final Issue B

July 2026

Planning Inspectorate Reference: EN020027

Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009 Regulation 5(2)(a)

nationalgrid

Revision History

Version	Date	Submitted at
A	29 August 2025	DCO Application
B	21 July 2026	Deadline 7 to include latest cross references

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1. Introduction

1.1 Background

- 1.1.1 This report has been produced as an appendix to Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) of the Environment Statement (ES) (Volume 6 of the Development Consent Order (DCO) application) for Norwich to Tilbury (‘the Project’).
- 1.1.2 The ecological background and scope for this report is set out in the Environmental Impact Assessment (EIA) Scoping Report (document reference 6.19) and agreed within the EIA Scoping Opinion received from the Planning Inspectorate in December 2022 (document reference 6.20).
- 1.1.3 The EIA Scoping Report (document reference 6.19) anticipated potential habitat loss through construction, with no perceivable pathways to impact from operation (and maintenance). Permanent habitat loss would be limited to permanent infrastructure, with hedgerows being reinstated on completion of construction as far as practicable. Additional areas of planting and habitat creation to deliver a net gain in biodiversity would be implemented.
- 1.1.4 All hedgerows have been surveyed as part of the wider habitat surveys (Appendix 8.1: Habitat Report (document reference 6.8.A1) (Revision C)) and to inform Biodiversity Net Gain (BNG) calculations, as reported in the Biodiversity Net Gain Report (document reference 7.1) (Revision B).
- 1.1.5 This report specifically details the scope for determining whether hedgerows that may be impacted¹ by the Project, meet the criteria to be considered ‘important’ under the Hedgerows Regulations 1997 to establish a sufficient baseline to inform the impact assessment and inform mitigation.
- 1.1.6 Hedgerows which, at the time of site selection, were proposed to be permanently or temporarily removed to facilitate the Project were selected for survey providing they met the criteria outlined in Section 3.2.
- 1.1.7 The results presented in this report and those presented in Appendix 8.1: Habitat Report (document reference 6.8.A1) (Revision C) collectively present the baseline for the assessment of effects on hedgerows as reported in Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).
- 1.1.8 The Project has also been sub-divided into eight geographical sections for reader accessibility, based largely on Local Planning Authority boundaries. These are shown on Figure A8.3.1: Hedgerows Regulations Assessment in Annex A and comprise:
- Section A – South Norfolk Council
 - Section B – Mid-Suffolk District Council

¹ The term ‘impacted hedgerow’, within the context of this report, refers to a hedgerow within the Order Limits where temporary or permanent removal of the hedgerow is necessary to facilitate the Project.

- Section C – Babergh District Council, Colchester City Council and Tendring District Council
- Section D – Colchester City Council
- Section E – Braintree District Council
- Section F – Chelmsford City Council and Brentwood District Council
- Section G – Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)
- Section H – Thurrock Council.

1.1.9 Results reported in this document reference the Project Section that the site is located within.

1.2 Brief and Objectives

1.2.1 The brief of this report was to establish, of the hedgerows which are planned to be impacted by the Project, which are 'important' under the Hedgerows Regulations 1997. This is achieved by undertaking the following:

- Identify potentially 'important' hedgerows through a detailed desk study
- Complete botanical surveys on the potentially 'important' hedgerows which may be impacted by the Project to identify those that are 'important' using the wildlife and landscape criteria within the Hedgerows Regulations 1997
- Record important ground flora species
- Identify and map any invasive non-native species.

1.2.2 The Hedgerows Regulations 1997 are intended to set a framework for 'important' hedgerows to be functional as a stand-alone approach. In the case of the Project, the hedgerows are not being assessed in isolation, they are being assessed for their botanical value as part of BNG and a Hedgerows Regulations assessment.

1.2.3 Their value to protected species is considered alongside a suite of dedicated surveys for protected species associated with Part 2, section 6 of the Hedgerow Regulations 1997, this is set out across multiple appendices as part of Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).

1.3 Study Area

1.3.1 The Study Area was defined as all hedgerows within the Order Limits as shown on Figure A8.3.1: Hedgerows Regulations Assessment in Annex A.

1.3.2 A detailed desk study was conducted in May 2024 in conjunction with UK Habitat Classification (UKHab) survey results. This data was then used to inform the hedgerows selected for survey. A total of 77 hedgerows were selected for survey as they met the criteria outlined in Section 3.2.

2. Relevant Legislation and Policy

2.1 Legal Compliance

- 2.1.1 Surveys and assessments have been undertaken in accordance with current legislation and planning policy in the context of the Project. A summary of the relevant legislation and policy is provided in Table A8.3.1

Table A8.3.1 Legal compliance

Legislation	Details
The Hedgerows Regulations 1997 under section 97 of the Environment Act 1995	The Hedgerows Regulations aims to protect ‘important’ hedgerows, defined as lines of trees or shrubs acting as barriers or boundaries in the rural landscape. The Hedgerows Regulations were made under section 97 of the Environment Act 1995 and increased the governance around the removal of ‘important’ hedgerows for biodiversity in England and Wales. It established a system of mandatory notification of Local Planning Authorities of potentially harmful development and offers a framework for protection or controlling their removal. Removal of a hedgerow in contravention of the Regulations is a criminal offence and punishable by either a £5,000 fine by the Magistrates’ Court or unlimited fines if in indictment of the Crown Court. The Regulations only apply to countryside hedgerows. Urban hedgerows, curtilage boundaries and hedgerows that form boundaries to non-agricultural or non-horticultural fields are excluded from protection under the Regulations. To be classified as ‘important’, the hedgerow must be at least 30 years and pass an assessment with respect to the archaeological, historical, wildlife or landscape value of the hedgerow. Evaluation consists of an on-site survey to assess wildlife and landscape and desk-based reference to records to assess historical value.
The Wildlife and Countryside Act (WCA) 1981, as amended	The Act is the main mechanism for legislative protection of wildlife in England. It gives protection to native species (particularly threatened species), their resting places and places of shelter by making it an offence to kill, injure, take, damage, destroy, sell, or possess them (with exceptions).
The Natural Environment and Rural Communities (NERC) Act 2006	The NERC Act 2006 places a duty upon public bodies to maintain Section 41 (s41) lists of flora, fauna, and habitats (previously UK Biodiversity Action Plan (BAP) habitats and species) and to consider these ecological features as a material consideration in planning. It also requires decision-makers to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Legislation	Details
Conservation of Habitats and Species Regulations 2017, as amended in 2019 ('Habitat Regulations')	The Regulations require authorities on behalf of the Secretary of State to maintain a list of sites which are important for either habitats or species (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) and to provide protection for these sites through designation, planning, and other controls. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities (Natural England in England). Licences may be granted for several purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the favourable conservation status of the species concerned.
Countryside and Rights of Way Act 2000	The Act places a duty on government departments to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity (this duty was strengthened in the NERC Act). It also strengthens legal protection for species considered to be threatened under the WCA and increases powers for the protection and management of SSSIs.
The Environment Act 2021	In line with the 25 Year Plan for the Environment (HM Government, 2018), new development should identify and pursue opportunities for securing measurable net gains for biodiversity and for the wider environment. The Environment Act 2021 introduces a requirement for biodiversity net gain which is expected to become mandatory for Nationally Significant Infrastructure Projects in May 2026.
The Invasive Alien Species (Enforcement and Permitting) Order 2019	This order strengthens the legislation in relation to widely spread species of European Union concern, requiring effective management measures to be put in place to minimise their impacts. A person who plants or otherwise causes to grow in the wild any specimen which is of a species of plant which is included in Part 2 of Schedule 2 is guilty of an offence.

2.2 Planning Policy

- 2.2.1 Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) provides further details of relevant planning policy.

3. Methodology

3.1 Nomenclature

- 3.1.1 Common and scientific names of species recorded follow The New Flora for the British Isles (Stace, C. A, 2019). Capital letters have not been used for the common names in keeping with guidance used for the compilation for the ES whereby capital letters are only to be used for proper nouns. Scientific names are provided at first occurrence within the main body of the text.
- 3.1.2 Common and scientific names of woody and valuable ground flora species as defined by the Hedgerows Regulations 1997 are listed in Annex B: Valuable Ground Flora Species in the Hedgerows Regulations and Annex C: Scientific Names of Woody Species Identified in the Hedgerows Regulations.

3.2 Desk Study

- 3.2.1 A desk-based assessment was completed in May 2024. This was conducted with the aim of refining the Hedgerows Regulations Assessment Survey Area to hedgerows which, at the time of site selection, were proposed to be permanently or temporarily removed to facilitate the Project. To be identified for surveying, the hedgerows also needed to meet one of the following criteria:
- Five or more woody species present (species rich)
 - Bluebell present
 - Situated on a protected lane
 - Situated on a parish boundary.
- 3.2.2 UK Habitat (UKHab) survey data was reviewed to identify hedgerows with bluebell present or five or more woody species. Survey methodology for UKHab and results are presented in Appendix 8.1: Habitat Report (document reference 6.8.A1) (Revision C).
- 3.2.3 UKHab surveys were carried out on all hedgerows within the Order Limits. A total of 466 hedgerows were identified as being potentially 'important' under the Hedgerows Regulations, their locations are shown on Figure A8.3.1: Hedgerows Regulations Assessment in Annex A.
- 3.2.4 Where survey data was absent due to unforeseen circumstances, such as land access restrictions, aerial images and 'street view' from Google Earth (Google Earth, 2023) were used to assess the species richness of a hedgerow.
- 3.2.5 The Multi-Agency Geographic Information for the Countryside (MAGIC) website (Natural England, 2025) was used to identify the locations of parish boundaries.

3.3 Survey Methodology

- 3.3.1 The Hedgerow Survey Handbook details a standard procedure for surveys in the UK. The handbook defines a hedgerow as *‘any boundary line of trees or shrubs over 20 m long and less than 5 m wide at the base, provided that at one time the trees or shrubs were continuous. It includes an earth bank or wall only where such a feature occurs in association with a line of trees or shrubs. This includes ‘classic’ shrubby hedgerows, lines of trees, shrubby hedgerows with trees and very gappy hedgerows (where each shrubby section may be less than 20 m long, but the gaps are less than 20 m)’* (Defra, 2011).
- 3.3.2 This report assesses the value of hedgerows with respect to the wildlife and landscape criteria in the Hedgerows Regulations whereby a hedgerow must fulfil one of the below requirements to be considered ‘important’:
- At least seven woody species per 30 m sample (see Annex B for the list of recognised species)
 - At least six woody species per 30 m sample and at least three features
 - At least six woody species per 30 m sample including any one of black poplar *Populus nigra*, wild service-tree *Sorbus torminalis*, small-leaved lime *Tilia cordata*, large-leaved lime *Tilia platyphyllos*
 - At least five woody species per 30 m sample and at least four features
 - If adjacent to a bridleway/footpath, at least 4 woody species per 30 m sample, and at least two features.
- 3.3.3 A ‘feature’ describes the context/attributes of a hedgerow that influence its importance, and include:
- **Bank/wall:** The hedgerow is supported along at least half its length by a bank or a wall
 - **Intact:** the hedgerow contains less than 10% gaps along its length
 - **Trees:** the hedgerow supports at least one standard tree per 50 m length (a standard tree has a diameter of at least 20 cm at 1.3 m above ground level)
 - **Three ground flora species:** the hedgerow supports at least three of the valuable ground flora species listed in the Regulations (listed in Annex B)
 - **Ditch:** there is a ditch along at least half the length of the hedgerow
 - **Connections:** if a hedgerow scores at least 4 ‘points’
 - Each connecting hedgerow within 10 m = 1 point
 - Each connecting broadleaved woodland within 10 m = 2 points
 - Each connecting pond within 10 m = 2 points
 - **Parallel hedge:** there is a parallel hedge within 15 m.
- 3.3.4 Table A8.3.2 provides a brief explanation as to the ecological significance of the above features.
- 3.3.5 Protected lanes were identified through information supplied by the Local Planning Authorities within the Study Area.

- 3.3.6 A hedgerow would also automatically be classified as ‘important’ if it supports animal/plant species protected under the Wildlife and Countryside Act 1981, as amended, or a species of conservation concern as identified in the Red Data Books².

Table A8.3.2 Ecological significance of hedgerow features which influence its importance

Feature	Ecological Significance
Bank/wall	Habitat Enhancement: A bank or wall alongside a hedgerow adds structural diversity, offering shelter and microhabitats for a range of species (e.g., mosses, lichens, small mammals, and reptiles). Protection from Elements: Walls and banks can serve as windbreaks, help control soil erosion, and regulate local climate, supporting species that rely on stable conditions. Additional Plant Life: They can support different plant species than the hedgerow itself, increasing floral diversity and in turn, supporting more insect and animal species.
Intactness	Biodiversity and Habitat Continuity: An intact hedgerow is more effective as a habitat and corridor for wildlife movement. Gaps in the hedgerow reduce connectivity, limiting the ability of species to move and forage, which diminishes overall biodiversity. Protection for Species: Continuous, unbroken hedgerows provide consistent shelter and nesting sites for birds, mammals, and insects, and help maintain stable microclimates for plant species.
Trees	Structural Diversity: Trees add vertical layers to a hedgerow, increasing habitat diversity. Different species utilise the canopy, trunks, and roots. Nesting and Foraging Sites: Birds, bats, and insects depend on mature trees for nesting and food. Trees also support fungi, mosses, and lichen. Food Sources: Trees such as oak <i>Quercus</i> sp., hawthorn <i>Crataegus monogyna</i>, or blackthorn <i>Prunus spinosa</i> provide fruit, seeds, and nuts, which are valuable for wildlife, particularly in autumn and winter.
Three ground flora species	The ground flora species named in the Regulations (listed in Annex A) are regarded as valuable due to their association with ancient hedgerows, for example, bluebell <i>Hyacinthoides non-scripta</i>. These plants also support invertebrates and other pollinators.
Ditch	Water Supply and Moist Habitat: A ditch running parallel to a hedgerow enhances moisture availability, benefiting wetland and aquatic species. Amphibian Habitat: Ditches often serve as breeding grounds for amphibians like frogs and newts and can support a rich community of aquatic invertebrates. Nutrient Cycling: Ditches aid in draining excess water from surrounding land, which can prevent waterlogging and improve the health of both hedgerow plants and the nearby landscape.

² The text in the legislation should be consulted for a complete definition of which hedgerows are covered by the Regulations and the criteria used to assess the importance of a hedgerow, the above text is a summary to assist with the interpretation of the methodology followed and the findings of this report.

Feature	Ecological Significance
Connections	Wildlife Corridors: Connections between hedgerows or linking hedgerows to woodlands, fields, or other landscape features increase habitat connectivity, allowing species to move and forage over larger areas. Gene Flow: Greater connectivity between hedgerows prevents population isolation and allows for genetic exchange, maintaining the health and resilience of wildlife populations.
Parallel Hedge	Habitat Complexity: A parallel hedge (a second hedge running alongside the first, often separated by a ditch or path) increases habitat diversity and provides greater shelter for species. Wildlife Movement: Parallel hedges create dual corridors, offering more secure and varied routes for animals to move between habitats while remaining protected from predators. Ecological Gradient: With two hedgerows, there can be a greater variety of plant species, as one may provide more shade or moisture, fostering different ground flora communities.

- 3.3.7 All data was recorded using geographic information systems (GIS) and electronic recording forms designed to capture the data required to assess the importance of each hedgerow with respect to the wildlife and landscape criteria in the Hedgerows Regulations 1997.
- 3.3.8 As per the Hedgerows Regulations 1997, the woody species found in the central 30 m of each 100 m section of each hedgerow were recorded. The presence or absence of features that are listed in the Wildlife and Landscape criteria in the Regulations were recorded, as identified in paragraph 3.2.2 and 3.2.3 of this report.
- 3.3.9 A comments section in the recording form allowed for the recording of existing gaps in hedgerows that could be utilised by the Project, or the presence of rare, uncommon, or otherwise notable plant species. Photographs were taken to record the nature and condition of each hedgerow and to illustrate key features, these are presented in Annex D: Hedgerow Photographs.
- 3.3.10 Ancient and veteran trees were recorded separately by the arboricultural consultant, and are recorded in Appendix 13.6: Arboricultural Impact Assessment (document reference 6.13.A6) (Revision B), and there is no requirement for detailed recording of these features as part of this assessment.

3.4 Dates of Survey and Personnel

- 3.4.1 Hedgerows Regulations assessments were carried out on 14, 15, 20 to 24 and 30 May 2024 and 5 and 6 August 2024. These surveys were undertaken by an experienced and competent ecologist with over 25 years of experience (Field Identification Skills Certificate (FISC) Level 5, full CIEEM membership and fellow of the Linnean Society).

3.5 Notes and Limitations

- 3.5.1 In total, 77 hedgerows were initially identified for a targeted Hedgerows Regulations Assessment. Upon field survey, it was noted that seven of these were in-fact two

hedgerows, and as such they were labelled with 'a' or 'b' (for example, H12a and H12b). Therefore, total number of hedgerows surveyed was 84. The desk study data, originally pertaining to 77 hedgerows, remains accurate despite this clarification as the analysis still included the seven extra hedgerows within the Study Area.

- 3.5.2 In May 2024, it was not possible to gain access to survey all 77 hedgerows, and so surveys recommenced in August 2024 when access was available. Some of the early flowering ground flora species may have been missed in the August survey. To overcome this limitation, data collected as part of the UKHab survey has been reviewed and is presented in Appendix 8.1: Habitat Report (document reference 6.8.A1) (Revision C).
- 3.5.3 As detailed in Table A8.3.3, it was not possible to gain access to both sides of two hedgerows, this is not considered a limitation to the survey as sufficient information was gathered to confirm the importance of the hedgerows under the Regulations. Access was not available/possible for five hedgerows, as health and safety risk was deemed too great.

Table A8.3.3 **Survey limitations**

Project Section	Hedgerow ID	Limitation
C	H44	Only one side of each of these hedgerows was surveyed due land access restrictions at the time of survey.
G	H61	
C	H29	Not surveyed due to reasons of accessibility or health and safety. Hedgerows positioned on national speed limit roadways where there was limited verge or no pavement, or on/near to blind bends.
C	H38	
C	H43	
G	H60	
G	H64	

- 3.5.4 UKHab surveys have been undertaken on all hedgerows within the Order Limits, this provides a reliable and comprehensive assessment of hedgerow condition to inform the BNG calculations and impact modelling, the results of which can be found in their respective documents: Biodiversity Net Gain Report (document reference 7.1) (Revision B), Appendix 8.1: Habitat Report (document reference 6.8.A1) (Revision C) and Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).
- 3.5.5 16 hedgerows have since been removed from the dataset due to no longer being within the Project Order Limits. In conjunction with the further five were not able to be surveyed (see Table A8.3.3), this report contains field survey data pertaining to 64 hedgerows. Figure A8.3.1: Hedgerows Regulations Assessment in Annex A shows their locations.

4. Results

4.1 Overview

- 4.1.1 The assessment for the 'important' hedgerows is summarised in Table A8.3.6 with further detail presented in Annex A to Annex G.
- 4.1.2 Figure A8.3.1: Hedgerows Regulations Assessment in Annex A comprises a map that shows the locations of all hedgerows that have been identified as potentially 'important' that are within the Order Limits (identified as brown lines). It also shows the locations of the hedgerows that have been assessed against the Wildlife and Landscape Criteria in the Hedgerows Regulations. The hedgerows that are shown as purple lines are 'important' using the Wildlife and Landscape criteria under the Hedgerows Regulations.
- 4.1.3 Annex B: Valuable Ground Flora Species in the Hedgerows Regulations, contains a list of the plant species that are considered valuable under the Hedgerows Regulations, where at least three of these species need to be present in a hedgerow for this criterion to be passed.
- 4.1.4 Annex C: Scientific Names of Woody Species Identified in the Hedgerows Regulations, provides the scientific and common names of the woody species that are recognised by the Hedgerows Regulations.
- 4.1.5 Annex D: Hedgerow Photographs, provides a photographic record of the hedgerows that have been subject to a Hedgerows Regulations assessment using the Wildlife and Landscape criteria.
- 4.1.6 Annex E: All Hedgerows Selected for Hedgerows Regulations Assessment, presents the assessment against the Wildlife and Landscape Criteria of the Hedgerows Regulations.
- 4.1.7 Annex F: Woody Species and Valuable Ground Flora Species Recorded, provides a record of the plant species recorded in all hedgerows.

4.2 Desk Study Results

- 4.2.1 The results of the desk-based assessment are recorded in Table A8.3.4. The bias towards certain Project Sections reflects the uneven distribution of species rich hedgerows that are present within the Order Limits.

Table A8.3.4 Hedgerows regulations assessment per Project Section

Project Section	Total Hedgerows	Species rich	Bluebell Present	Old Lane	Parish Boundary
A	1	1	0	0	0
B	25	22	0	2	6
C	20	18	0	0	8
D	4	4	0	0	1
E	5	5	0	0	0
F	3	3	0	0	1
G	8	8	0	0	0
H	11	11	0	2	0
Total	77	72	0	4	16

4.3 Field Survey Results

- 4.3.1 Field survey identified that of the 77 hedgerows selected, seven of the hedgerows were in fact two hedgerows due to presence of either:
- A parallel hedgerow that had not been picked up on aerial imagery and incorrectly mapped as a single hedgerow, or
 - The hedgerow had extra connections that make a new hedgerow as defined by the Hedgerows Regulations.
- 4.3.2 Of the 84 hedgerows surveyed, as identified in Table A8.3.3, five could not be surveyed. A further 16 have been removed from the data set due to changes in Project design which meant they were no longer within the Order Limits.
- 4.3.3 34 hedgerows were considered ‘important’ under the *Hedgerows Regulations 1997* using the Wildlife and Landscape criteria. Seven of the hedgerows were exceptionally species rich supporting seven or more woody species in a 30 m survey section.
- 4.3.4 Table A8.3.5 outlines the ‘important’ hedgerows identified within each Section.

Table A8.3.5 'Important' hedgerows in each Project Section

Project Section	Number of 'Important' Hedgerows
A	1
B	16
C	7
D	3
E	1
F	3
G	3
H	0

4.3.5 Of the 'important' hedgerows, three contained invasive non-native species. H66 contained giant blackberry *Rubus armeniacus*, and H6 contained lesser periwinkle *Vinca minor*. Neither species is listed as an invasive species on Schedule 9 of the WCA 1981, but these are non-native plants that have been found to spread rapidly in the wild smothering native species. Further details are outlined in Table A8.3.6. Locations of the hedgerows are shown on Figure A8.3.1: Hedgerows Regulations Assessment in Annex A.

Table A8.3.6 Summary of 'important' hedgerows

Project Section	Hedgerow ID	Average Number Recognised Woody Species in 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least three valuable ground flora species	Ditch	Connect Score of at least 4	Parallel hedge within 15 m	Reason for being considered 'Important'
A	H1	4	Yes	No	Yes	No	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
B	H2	4	Yes	No	No	Yes	No	No	Yes	Yes	Adjacent bridleway/ footpath, 4 woody species, 2 features.
B	H4	8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	7 woody species
B	H6	9	Yes	Yes	Yes	Yes	Yes	No	No	Yes	7 woody species
B	H7	6	No	Yes	Yes	Yes	No	No	No	No	6 woody species 3 features.
B	H8	8	Yes	No	Yes	Yes	Yes	Yes	No	No	7 woody species.
B	H10	7	Yes	No	No	Yes	Yes	Yes	No	Yes	7 woody species.

Project Section	Hedgerow ID	Average Number Recognised Woody Species in 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	Features At least three valuable ground flora species	Ditch	Connect Score of at least 4	Parallel hedge within 15 m	Reason for being considered 'Important'
B	H12b	4	Yes	No	Yes	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
B	H16	6	No	No	Yes	Yes	No	Yes	No	No	6 woody species, 3 features.
B	H17	6	Yes	No	Yes	Yes	Yes	Yes	No	No	6 woody species, 3 features.
B	H18	7	Yes	No	Yes	No	No	Yes	No	Yes	7 woody species
B	H19	6	Yes	No	Yes	No	No	Yes	Yes	No	6 woody species, 3 features.
B	H20	6	No	No	Yes	No	Yes	Yes	No	No	6 woody species 3 features.
B	H21	5	Yes	No	Yes	No	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
B	H25	5	Yes	No	Yes	No	Yes	Yes	No	Yes	5 woody species 4 features.

Project Section	Hedgerow ID	Average Number Recognised Woody Species in 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	Features At least three valuable ground flora species	Ditch	Connect Score of at least 4	Parallel hedge within 15 m	Reason for being considered 'Important'
B	H26a	5	Yes	No	Yes	Yes	Yes	Yes	No	Yes	5 woody species, 4 features.
B	H26b	7	Yes	No	Yes	Yes	No	Yes	No	No	7 woody species.
C	H30a	5	Yes	No	Yes	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
C	H32	5	Yes	No	Yes	No	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
C	H35	5	Yes	No	No	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, and at least 2 features.
C	H36	5	Yes	No	Yes	No	Yes	No	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
C	H44	6	Yes	No	Yes	Yes	No	Yes	No	Yes	6 woody species, 3 features.

Project Section	Hedgerow ID	Average Number Recognised Woody Species in 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	Features At least three valuable ground flora species	Ditch	Connect Score of at least 4	Parallel hedge within 15 m	Reason for being considered 'Important'
C	H45	5	Yes	No	Yes	Yes	No	No	Yes	Yes	5 woody species, 4 features.
C	H46	6	Yes	Yes	Yes	Yes	No	No	Yes	Yes	6 woody species, 3 features.
D	H48	4	Yes	No	Yes	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
D	H51	5	Yes	No	Yes	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
D	H52	7	No	No	Yes	Yes	No	Yes	No	No	7 woody species.
E	H53	4	Yes	No	Yes	No	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
F	H56	6	Yes	Yes	Yes	No	No	No	No	Yes	6 woody species, 3 features.

Project Section	Hedgerow ID	Average Number Recognised Woody Species in 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	Features At least three valuable ground flora species	Ditch	Connect Score of at least 4	Parallel hedge within 15 m	Reason for being considered 'Important'
F	H57	5	Yes	No	Yes	Yes	No	Yes	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
F	H58	6	No	No	Yes	Yes	No	Yes	No	No	6 woody species, 3 features.
G	H59	4	Yes	Yes	Yes	Yes	No	No	No	No	Adjacent bridleway/ footpath, 4 woody species, 2 features.
G	H61	6	Yes	No	Yes	No	No	No	No	Yes	6 woody species 3 features.
G	H62	4	Yes	No	Yes	Yes	No	Yes	No	Yes	Adjacent bridleway/ footpath, 4 woody species, 2 features.

4.4 Incidental Records

- 4.4.1 Whilst records of plant species recorded during other surveys informed the selection of the hedgerows for survey their results did not alter the assessment of the importance of any of the hedgerows.

4.5 Conclusion

- 4.5.1 Results of the desk study indicate an uneven distribution of hedgerow species richness between Sections of the Project.
- 4.5.2 Of the 466 hedgerows identified as being potentially 'important' under the Hedgerows Regulations, when taking account of the potential effects of the Project on hedgerow flora, 77 were initially selected for survey. This was subsequently increased to 84 due to some hedgerows being found to be in-fact two during survey. As five could not be surveyed due to health and safety, total number of surveyed hedgerows was 79.
- 4.5.3 Of the hedgerows surveyed, 34 hedgerows within the Order Limits were identified as 'important' under the Hedgerows Regulations 1997 using the Wildlife and Landscape criteria.
- 4.5.4 Seven of the hedgerows were exceptionally species rich, supporting seven or more woody species in a 30 m survey section. The majority of these were in Section B which also yielded the highest number of 'important' hedgerows.
- 4.5.5 Three of the 'important' hedgerows contained invasive non-native species. H66 had giant blackberry, while H6a and H6b contained lesser periwinkle. Although neither species is listed as invasive under Schedule 9 of The Wildlife and Countryside Act 1981 they are non-native plants known for spreading rapidly and outcompeting native species.
- 4.5.6 All hedgerows within the Order limits have been subject to UKHab surveys, this provides a comprehensive hedgerow classification and condition assessment to inform BNG and impact modelling. The results of this can be found in Appendix 8.A1 – Habitat Report (document reference 6.8.A1) (Revision C).

Abbreviations

Abbreviation	Full Reference
BNG	Biodiversity Net Gain
CIEEM	Chartered Institute of Ecology and Environmental Management
CSE	Cable Sealing End (compound)
DCO	Development Consent Order
DTM	Digital Terrain Model
EIA	Environmental Impact Assessment
ES	Environmental Statement
FISC	Field Identification Skills Certificate
m	Metres
MAGIC	Multi-Agency Geographic Information for the Countryside
NERC	Natural Environment and Rural Communities Act 2006
SAC	Special Areas of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UKHab	UK Habitat Survey
WCA	Wildlife and Countryside Act 1981

Glossary

Term	Description
Ancient Hedgerow	Ancient hedgerows, which tend to be those which support the greatest diversity of plants and animals, may be defined as those which were in existence before the Enclosure Acts, passed mainly between 1720 and 1840 in Britain and from the mid seventeenth century in Ireland.
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.
Cable	An insulated conductor designed for underground installation.
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.
Development Consent Order	A statutory instrument which grants consents and other rights to build a Nationally Significant Infrastructure Project, as defined by the Planning Act 2008.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
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 <i>Infrastructure Planning</i> (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.
Fauna	All the animals in a given area.
Flora	The plants within a particular habitat or region.
Habitat	The natural home or environment of an animal, plant, or other organism.
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.

Term	Description
Important Hedgerow	Hedgerows which are considered ‘important’ due to meeting the criteria outlined in the <i>Hedgerows Regulations 1997</i> .
Invasive non-native species	An invasive non-native species is any non-native animal or plant that can spread, causing damage to the environment, the economy, health, and way of life.
Local Planning Authority	The public authority whose duty it is to carry out specific planning functions for a particular area.
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 as per the mitigation hierarchy.
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.
Sites of Special Scientific Interest	SSSIs are protected by law under the <i>Wildlife and Countryside Act 1981</i> . They are important because they support rare or endangered fauna and flora, and they represent the United Kingdom’s best wildlife and geological sites.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
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.
Underground cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds.
Zone of Influence	The defined geographic area within which the project’s environmental receptors are located.

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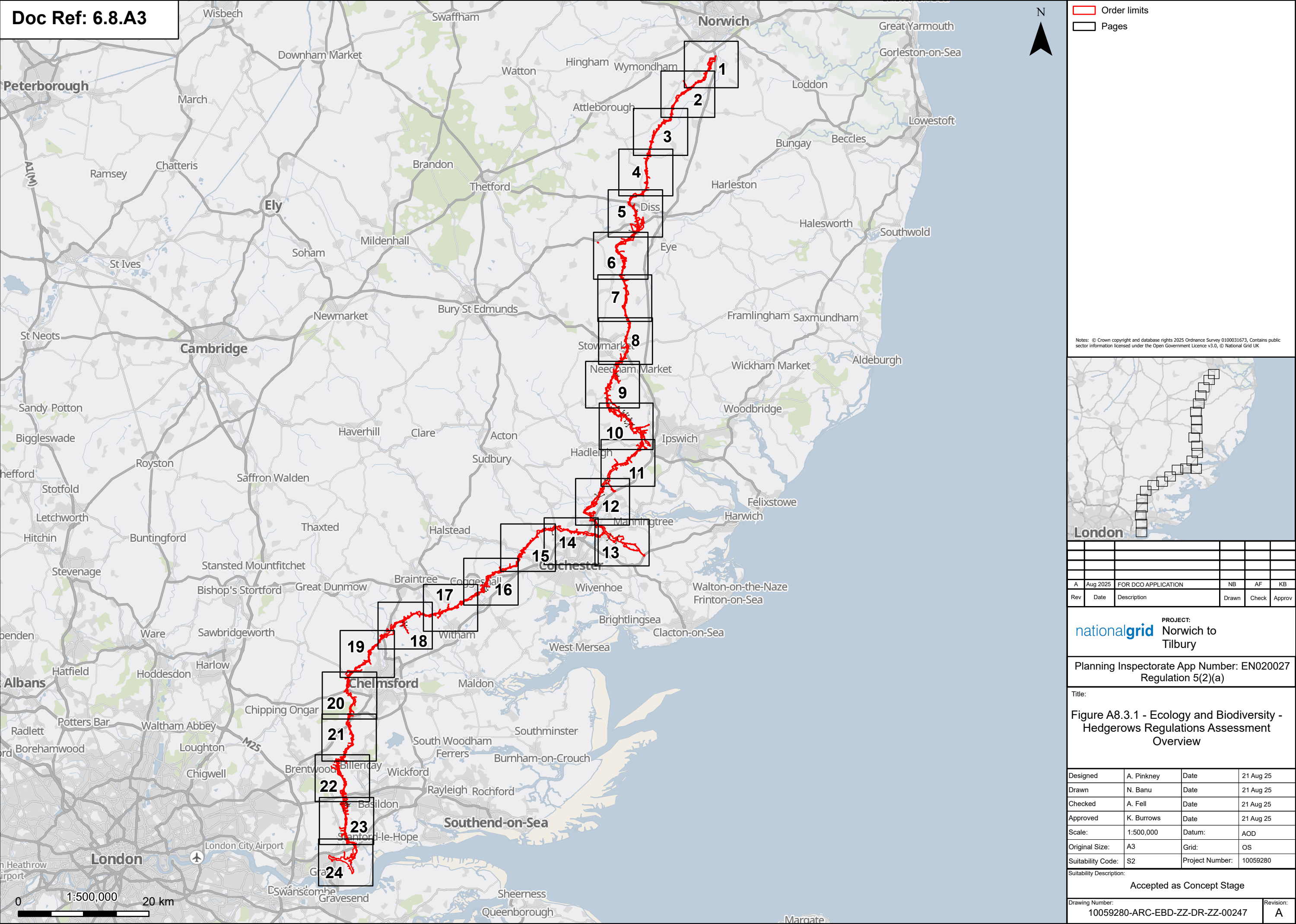
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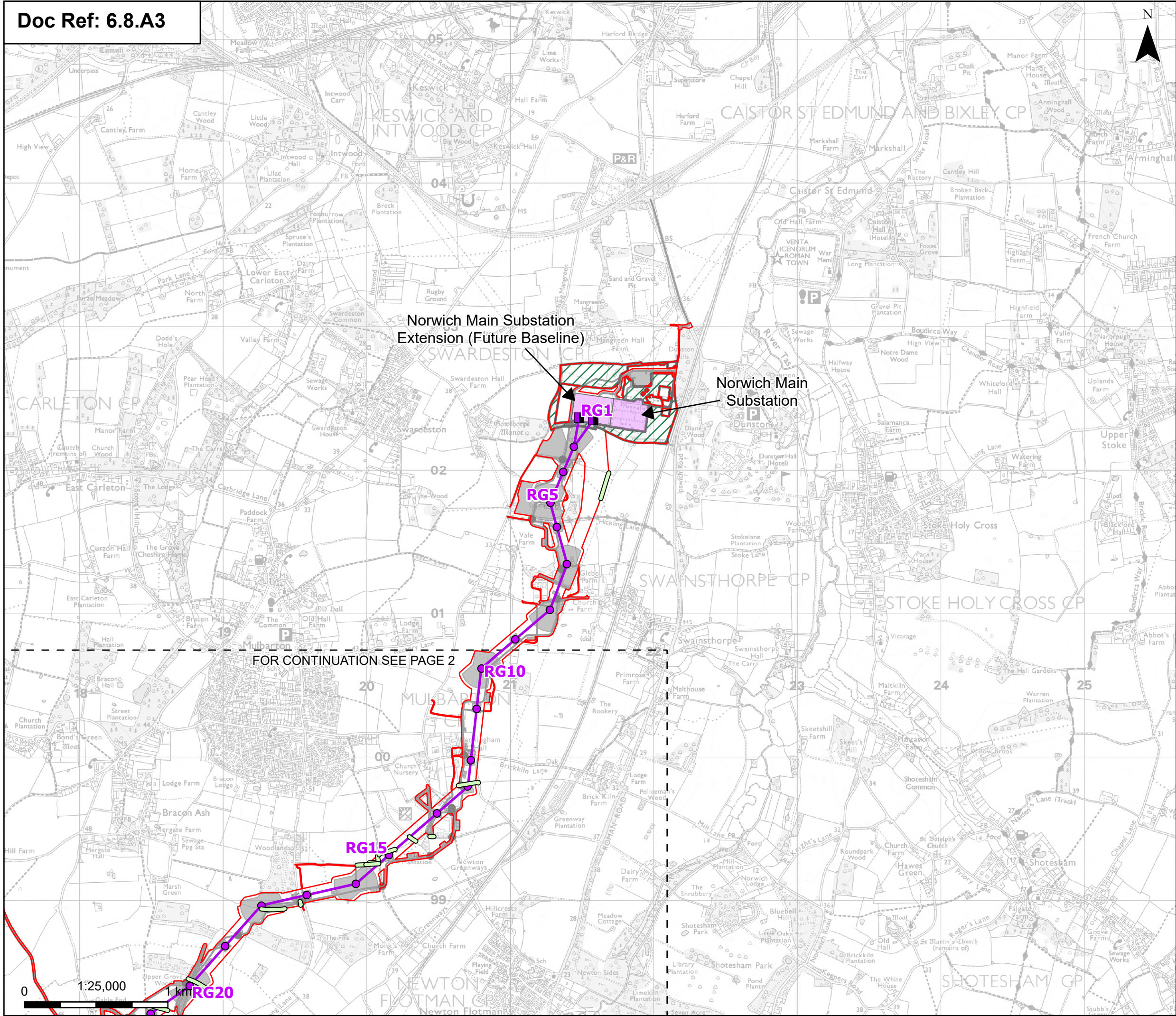
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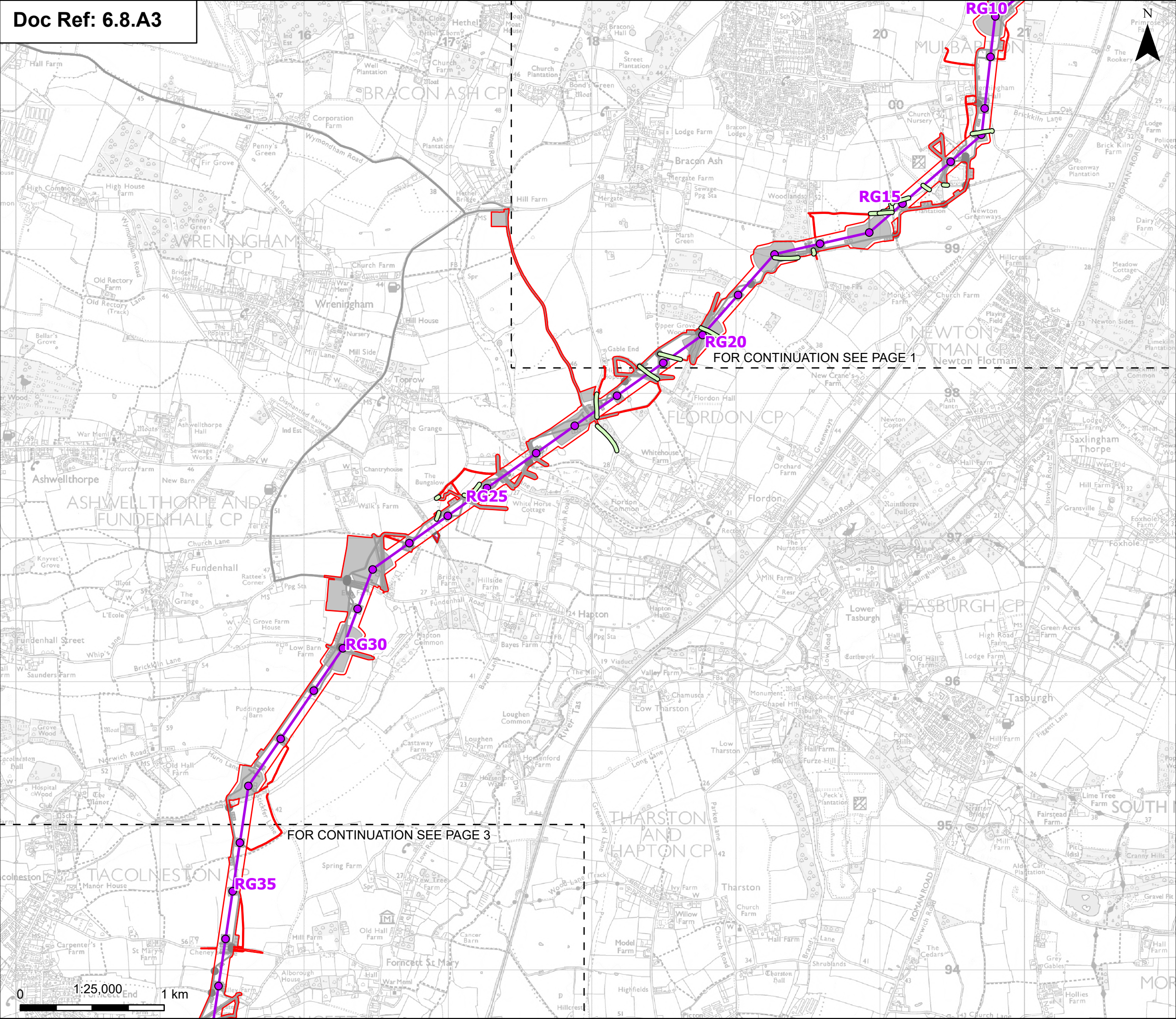
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Drawn	N. Banu	Date	21 Aug 25		
Checked	A. Fell	Date	21 Aug 25		
Approved	K. Burrows	Date	21 Aug 25		
Scale:	1:25,000	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	10059280		
Suitability Description: Accepted as Concept Stage					
Drawing Number: 10059280-ARC-EBD-ZZ-DR-ZZ-00247					Revision: A

Print Date: 15-08-25 10:28:20

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Drawn	N. Banu	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
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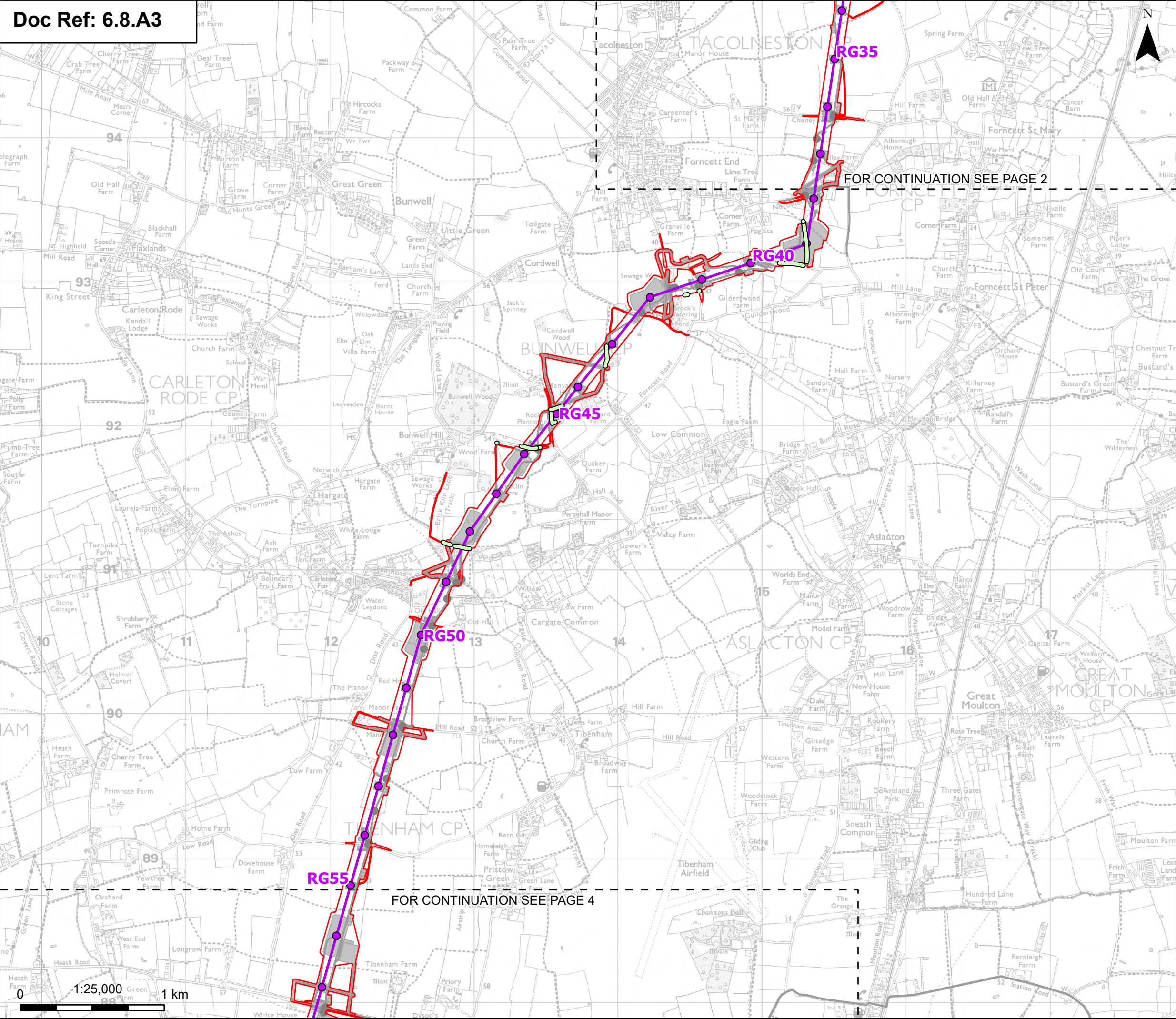
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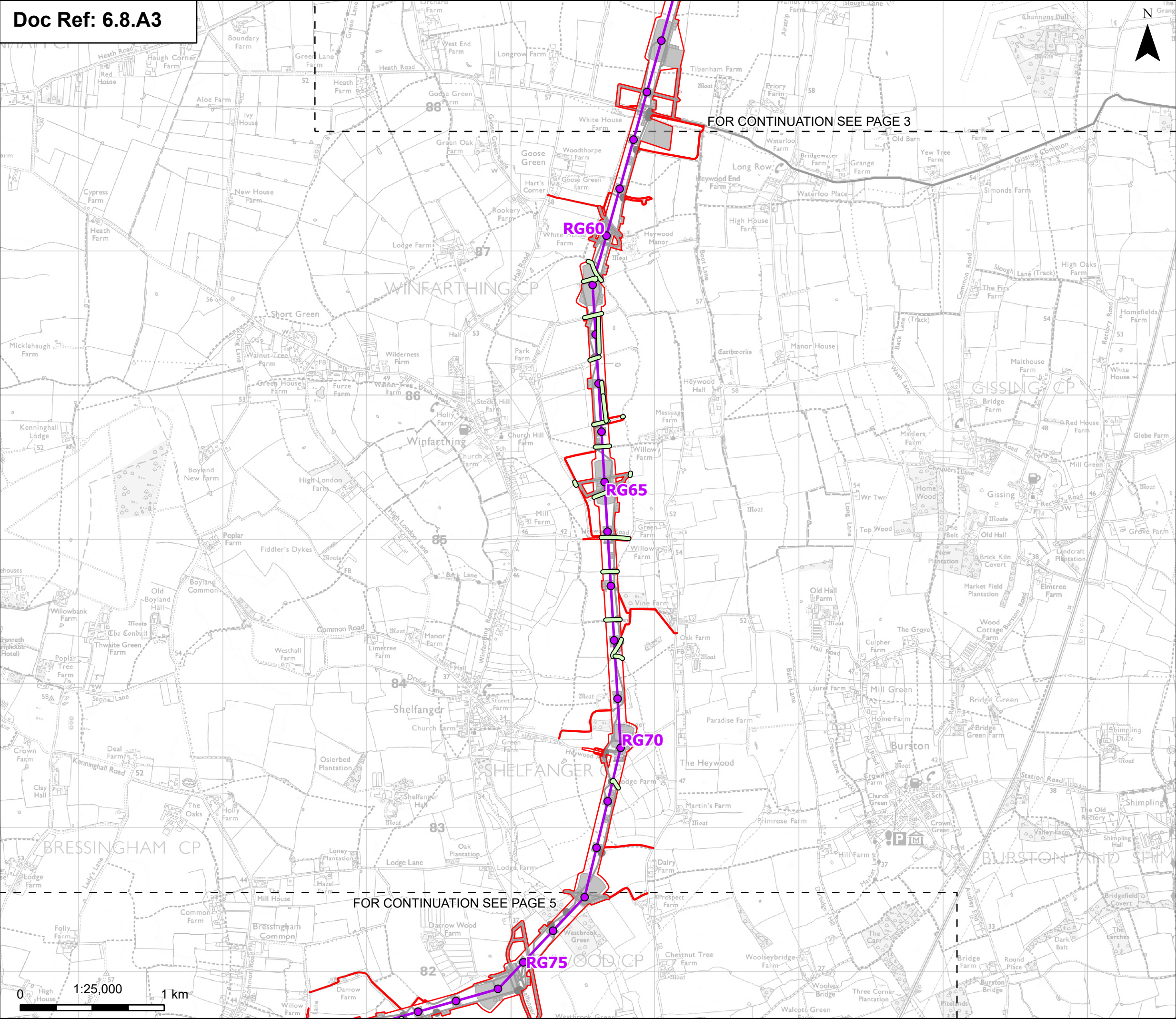
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Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10059280

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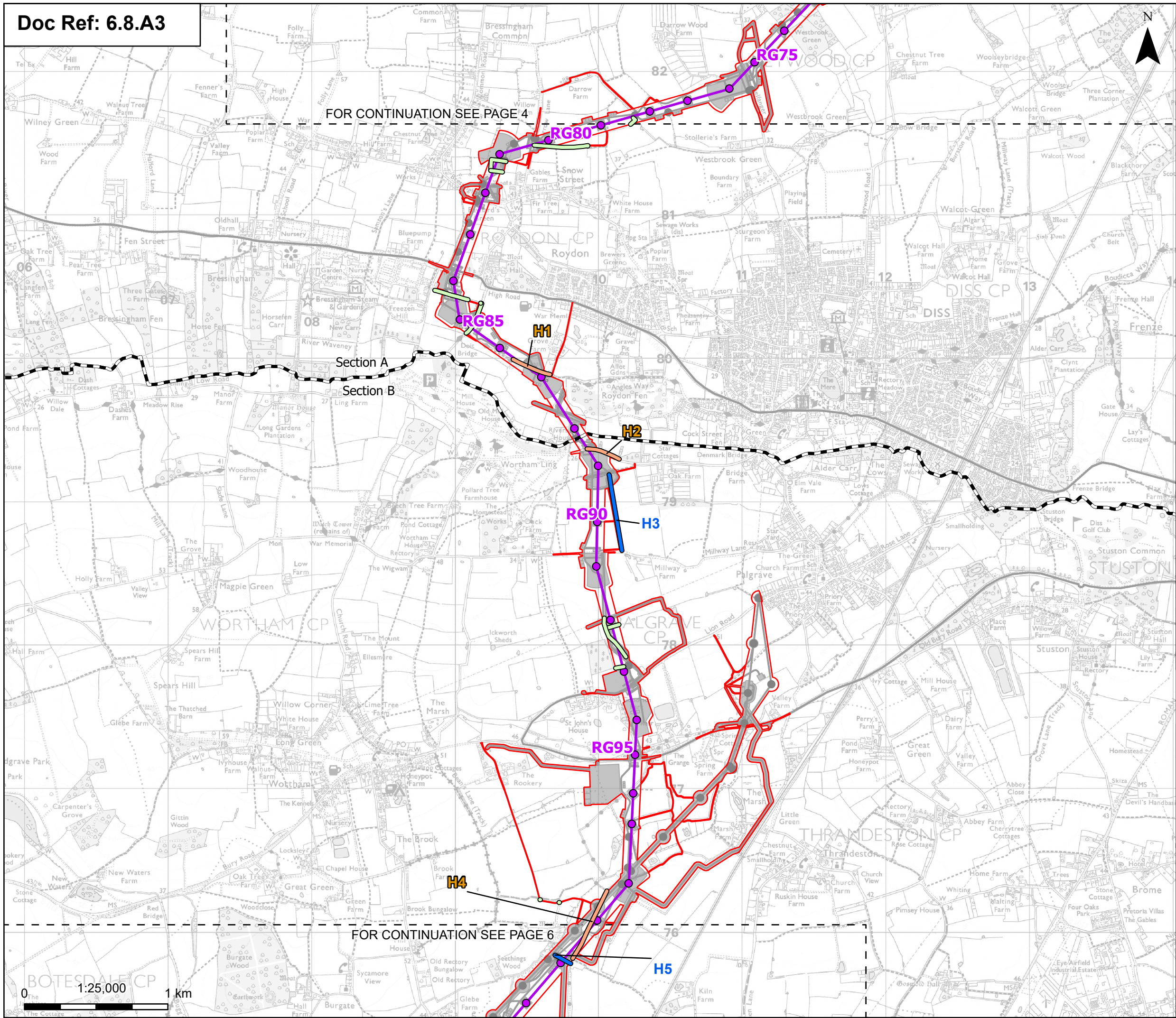
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Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:25,000	Datum:	AOD
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Drawing Number: 10059280-ARC-EBD-ZZ-DR-ZZ-00247			Revision: A

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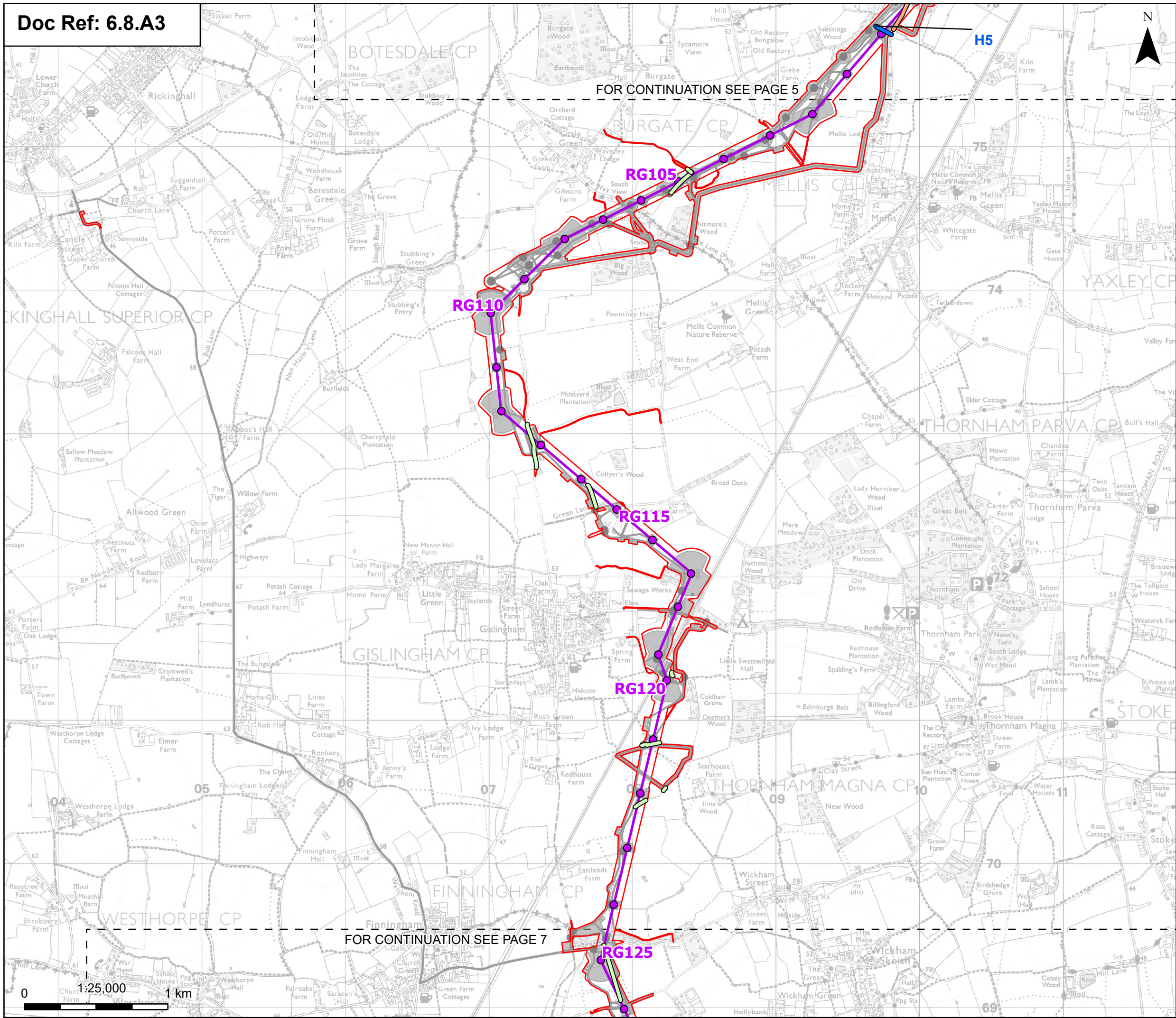
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Suitability Description:			
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Drawing Number: 10059280-ARC-EBD-ZZ-DR-ZZ-00247			Revision: A

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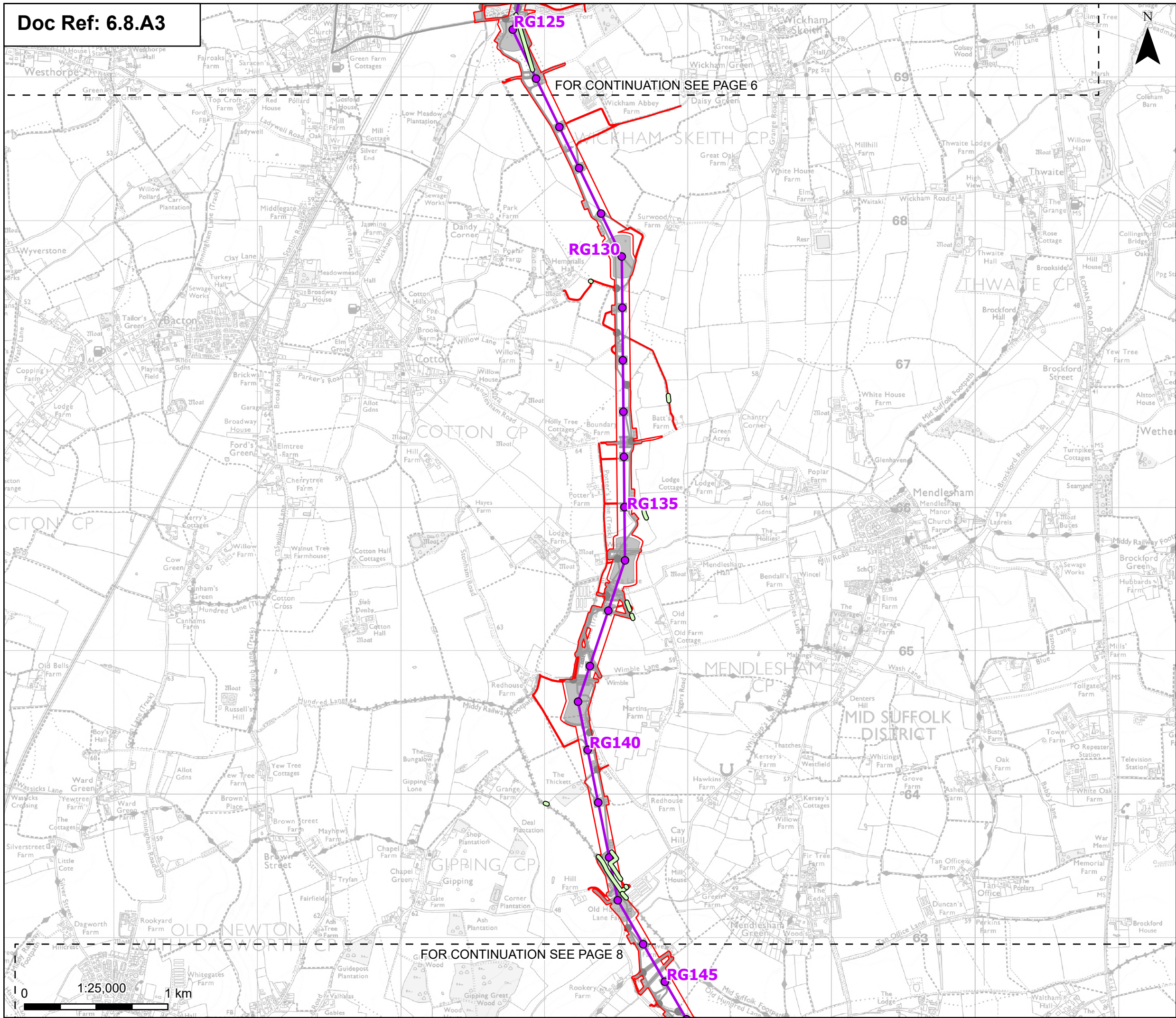
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Scale:	1:25,000	Datum:	AOD
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Original Size:	A3	Grid:	OS
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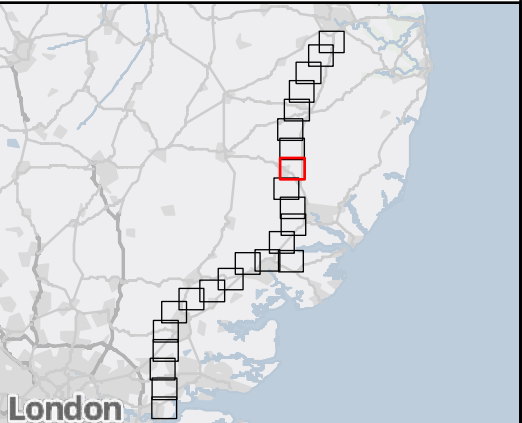
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Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
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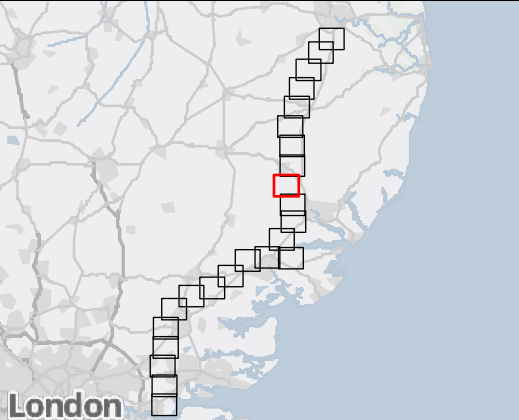


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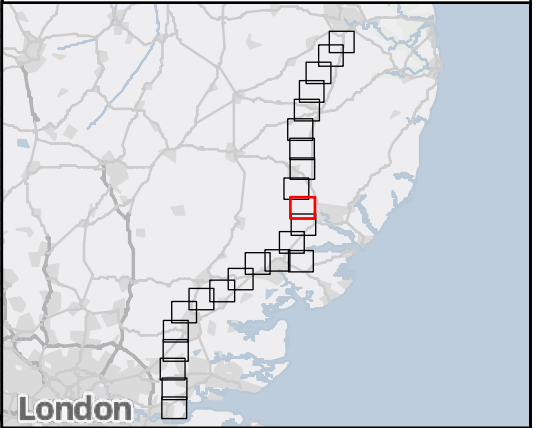
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Not surveyed

Potentially important hedgerows that were not chosen for survey

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)

Title:
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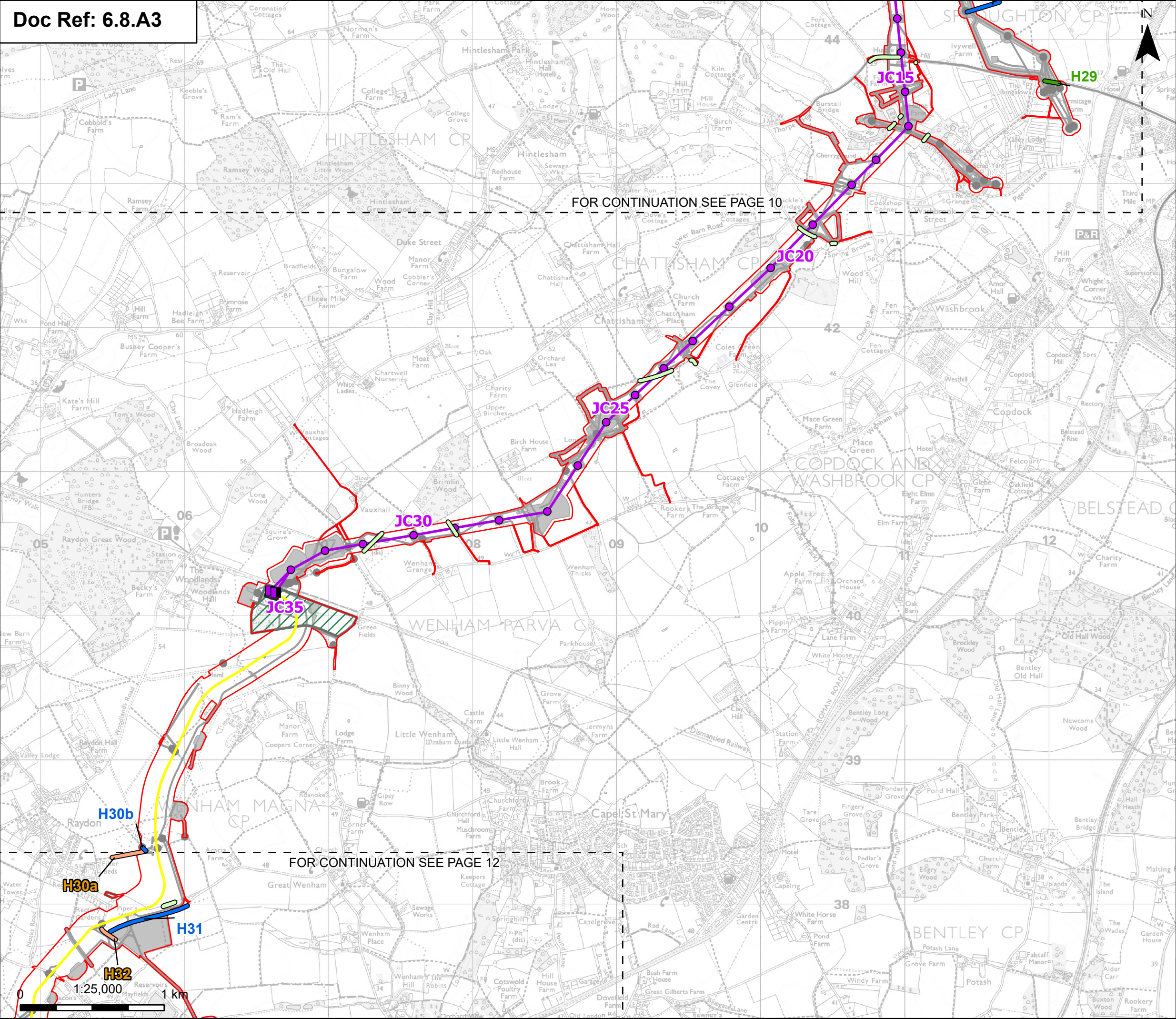
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Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
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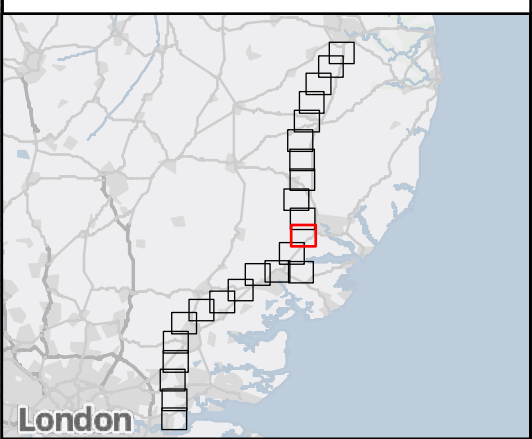
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- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound(CSEC)
- Environmental area
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Important hedgerows
- Unimportant hedgerows
- Not surveyed
- Potentially important hedgerows that were not chosen for survey

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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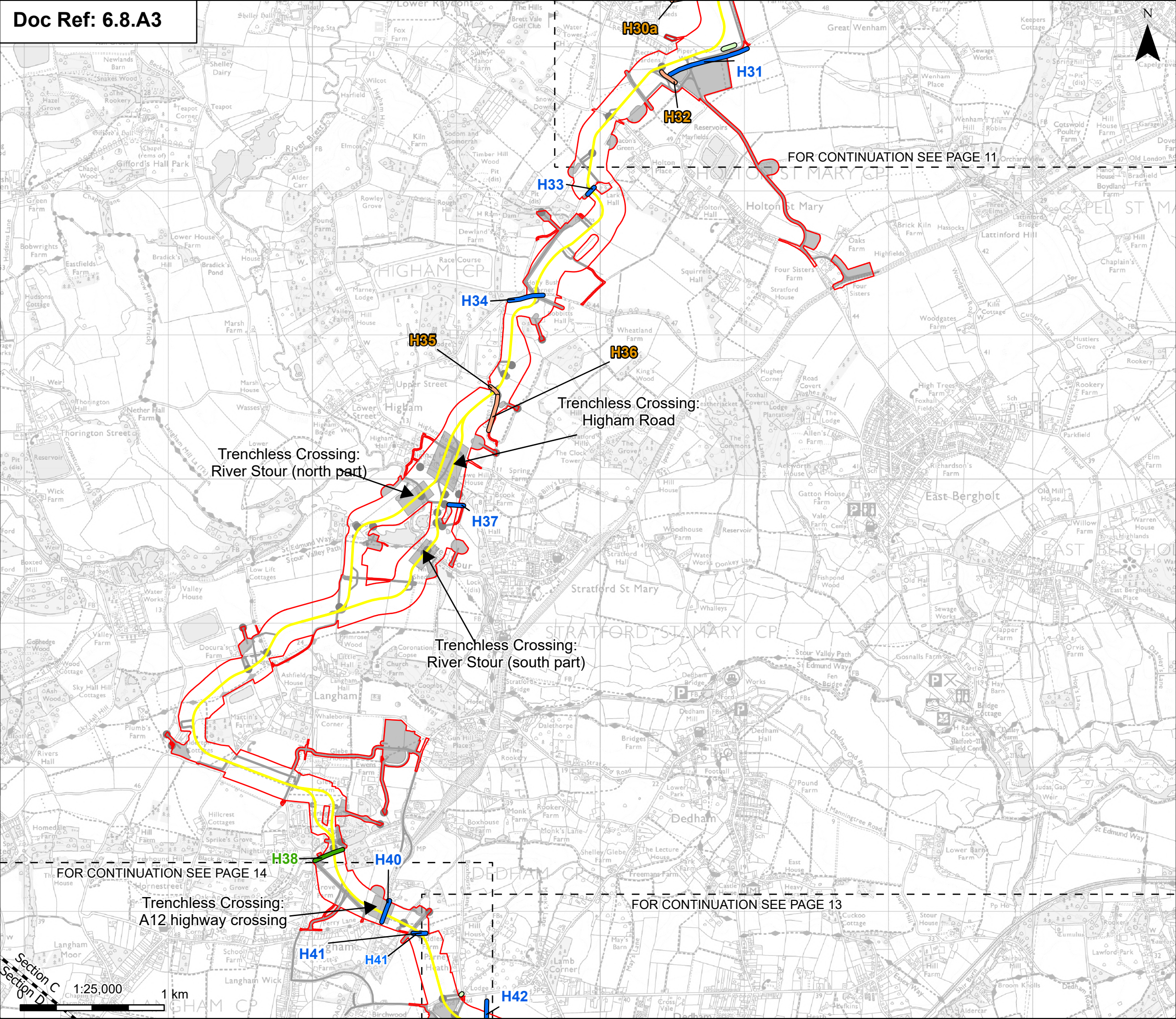
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Scale:	1:25,000	Datum:	AOD
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Suitability Description:
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Important hedgerows

Unimportant hedgerows

Not surveyed

Potentially important hedgerows that were not chosen for survey

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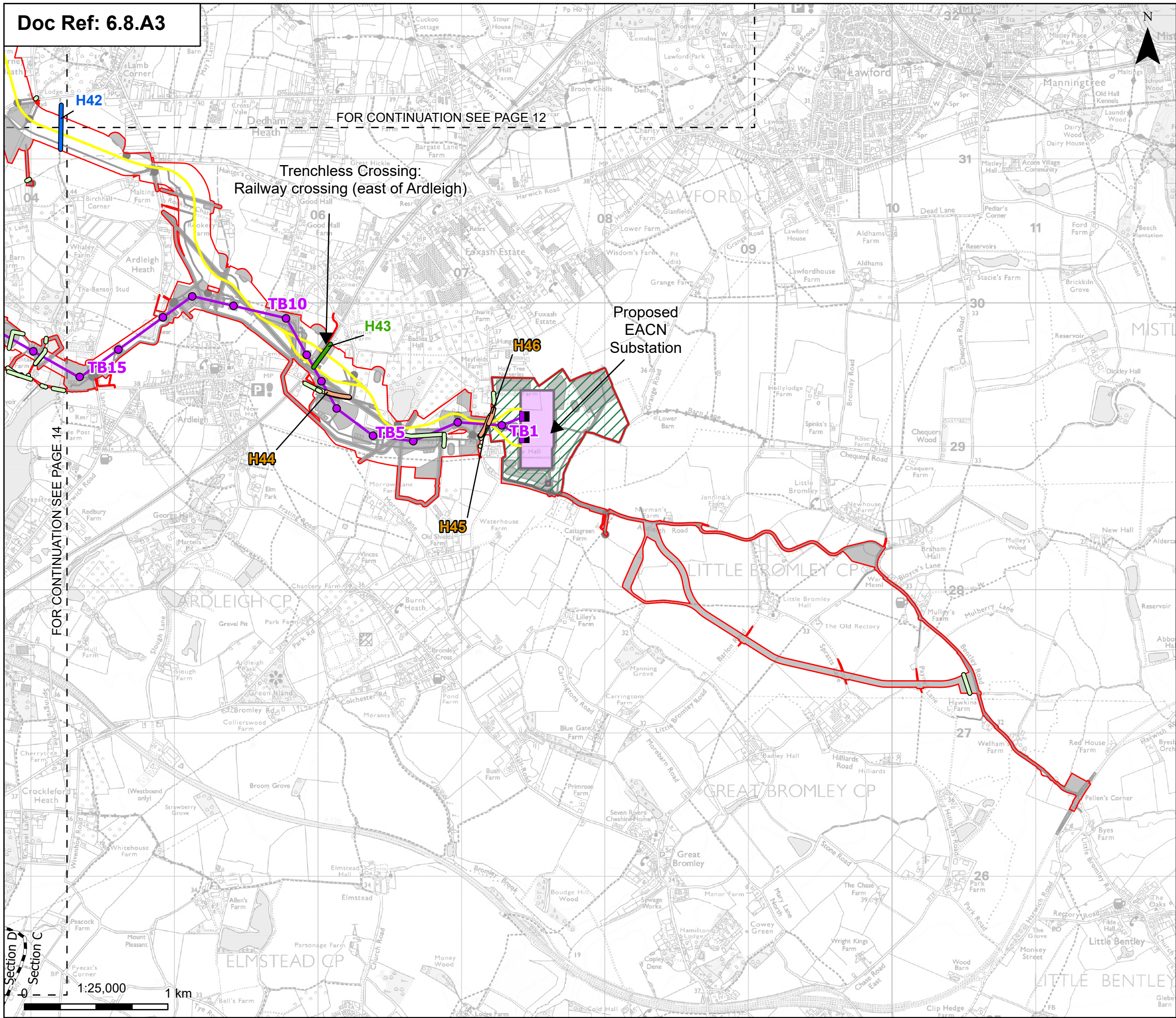
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Discipline specific constraints

Important hedgerows

Unimportant hedgerows

Not surveyed

Potentially important hedgerows that were not chosen for survey

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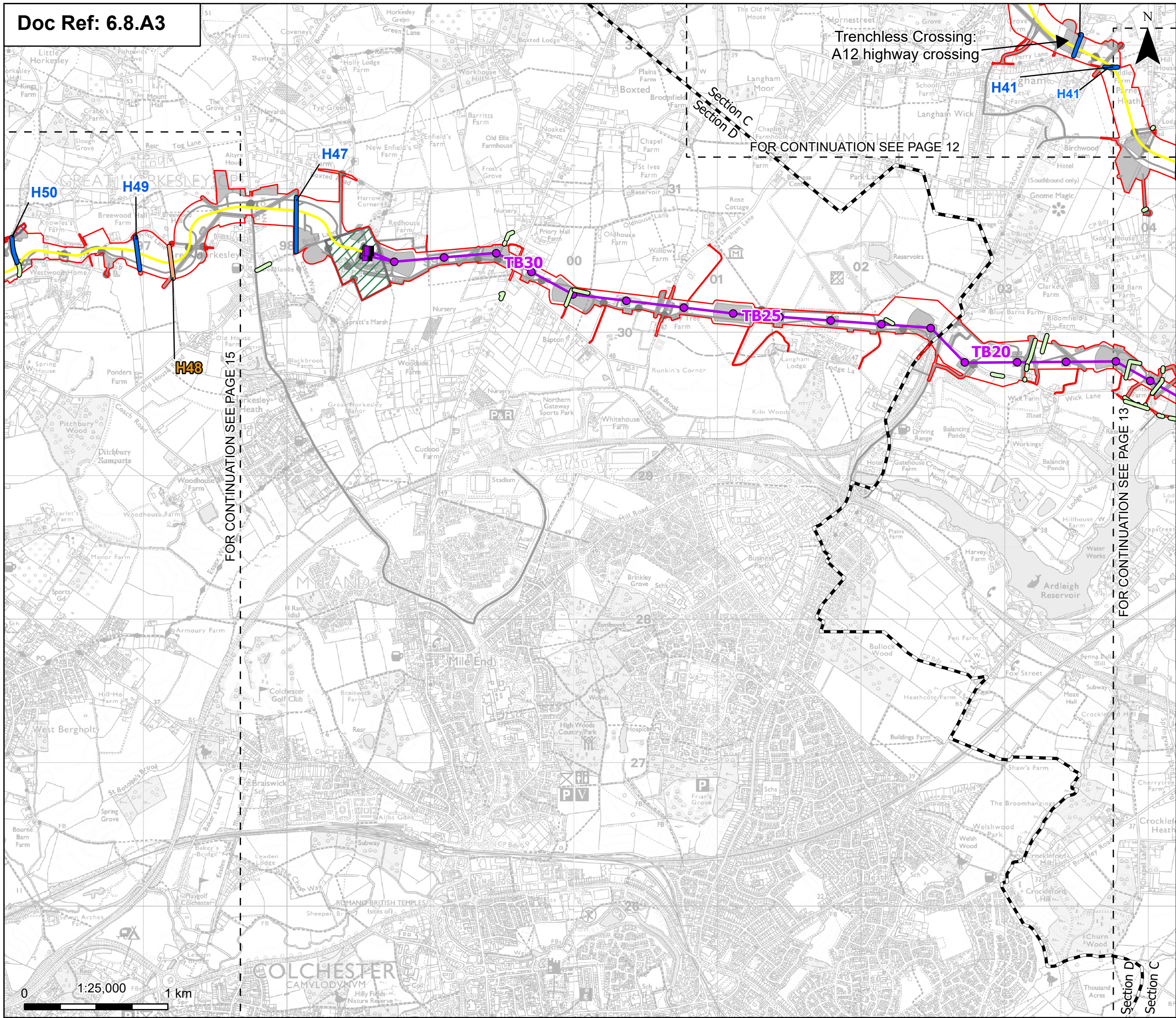
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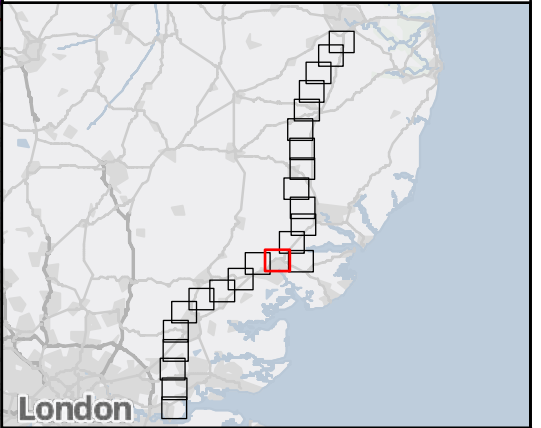
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 - Discipline specific constraints**
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 - Unimportant hedgerows
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- Note: The proposed overhead line alignment and proposed underground cable alignment 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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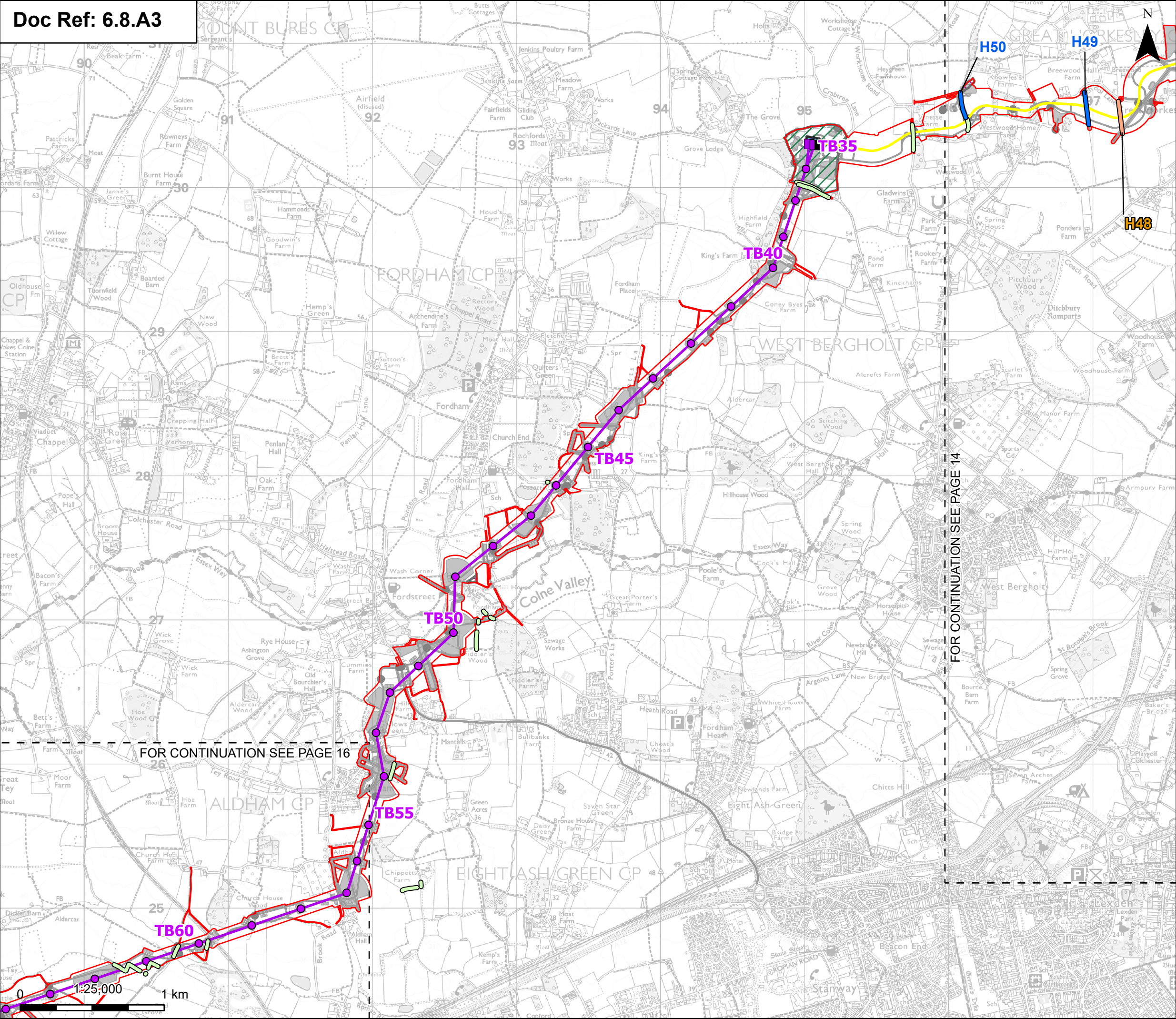
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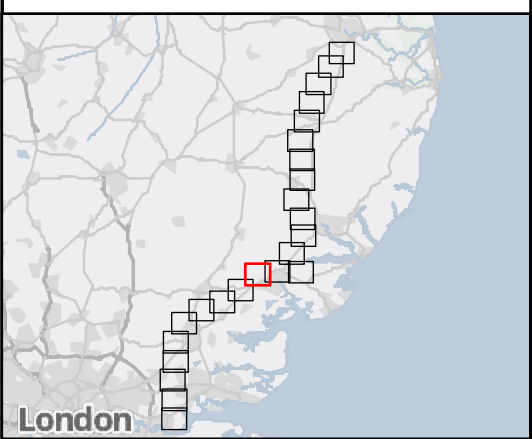
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- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

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- Unimportant hedgerows
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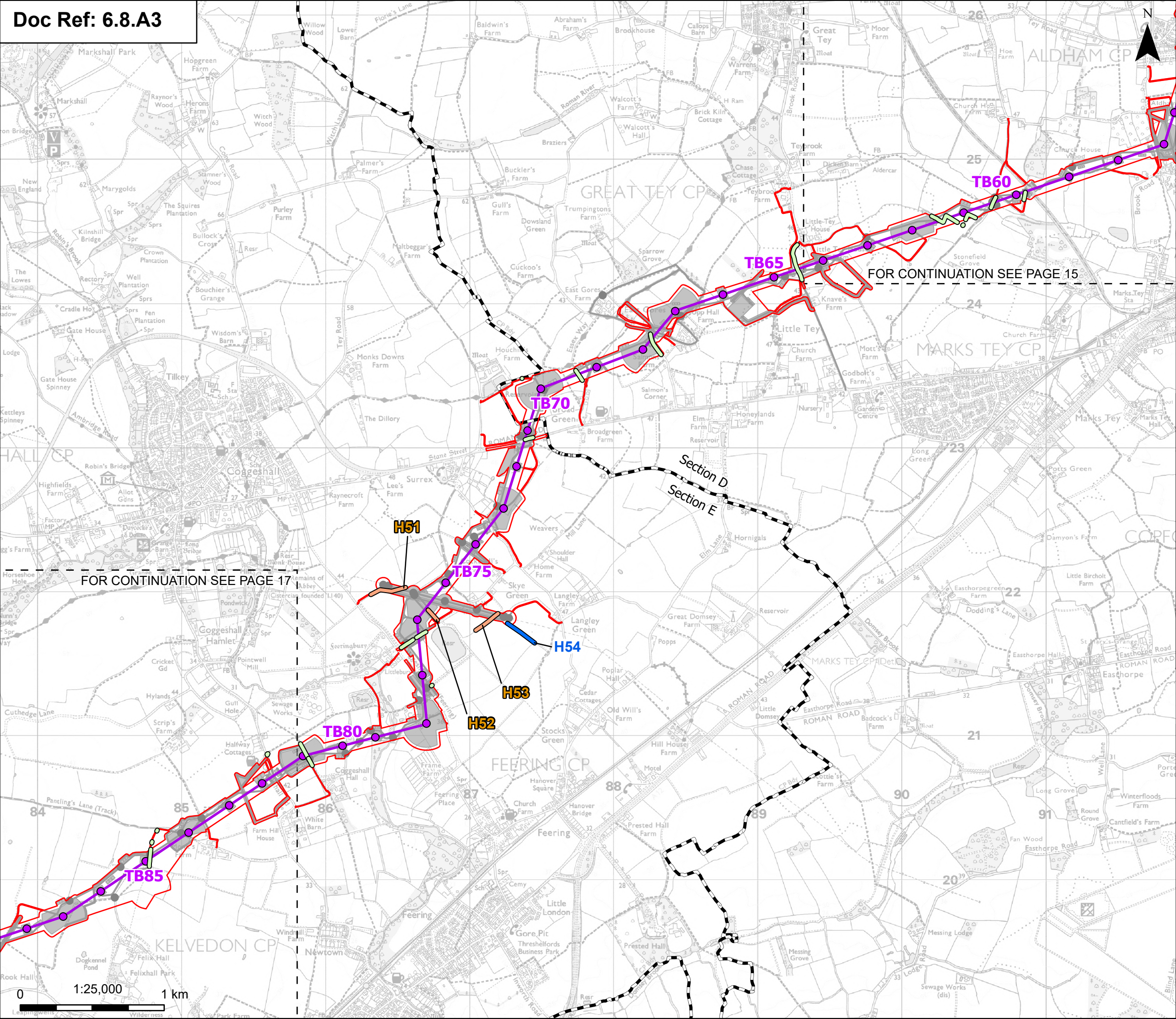
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Important hedgerows

Unimportant hedgerows

Potentially important hedgerows that were not chosen for survey

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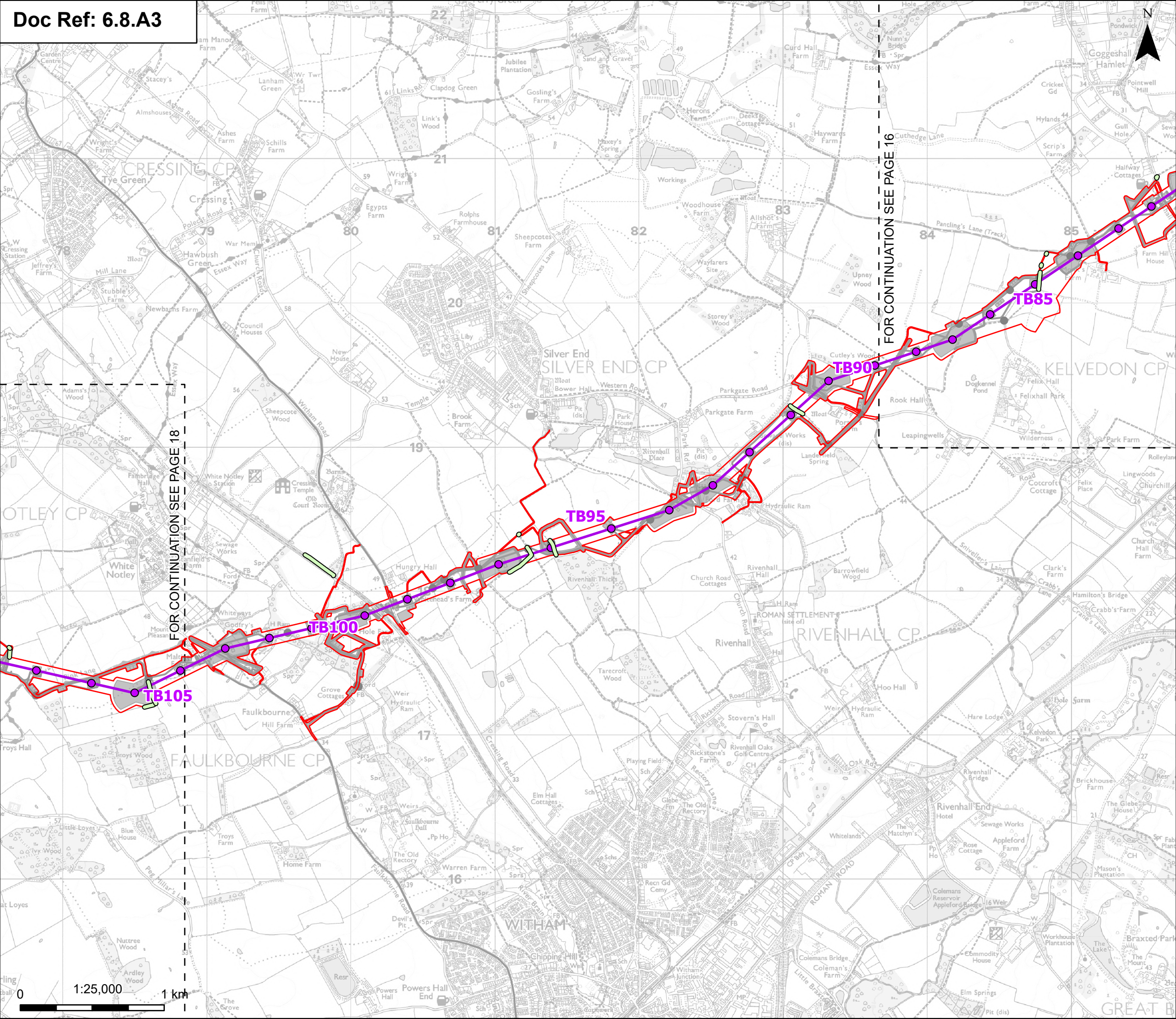
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Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment. For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

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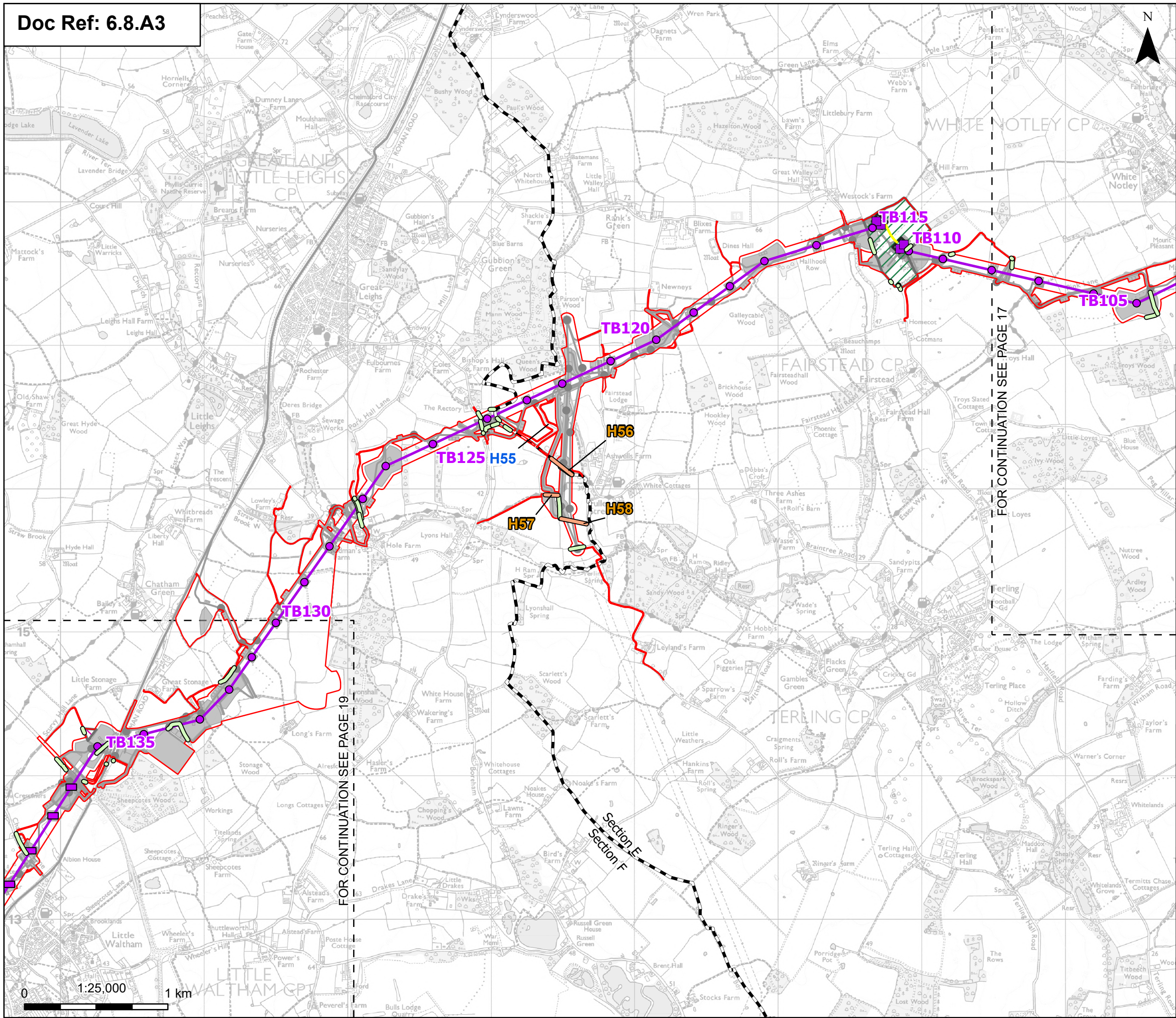
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Environmental mitigation

Other temporary and permanent construction and operational works

Discipline specific constraints

Important hedgerows

Potentially important hedgerows that were not chosen for survey

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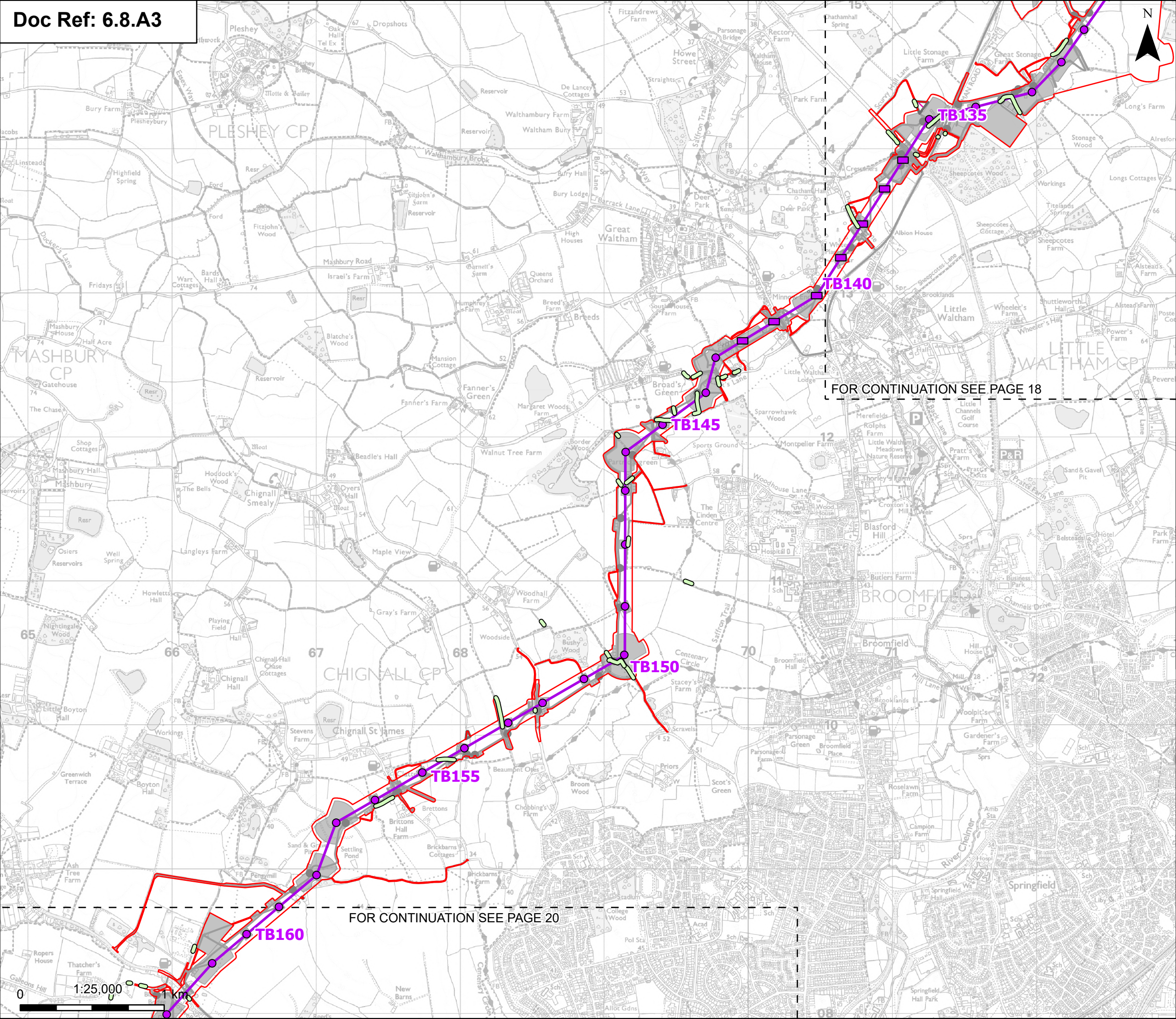
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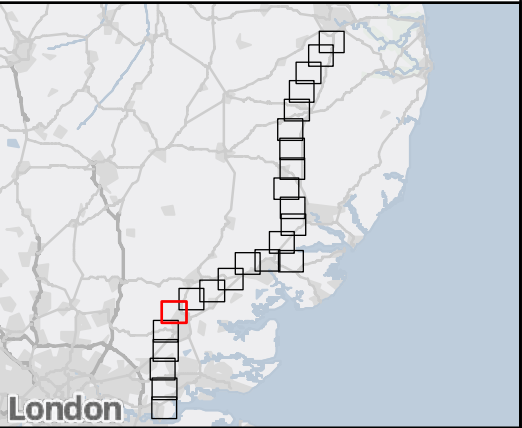
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Potentially important hedgerows that were not chosen for survey

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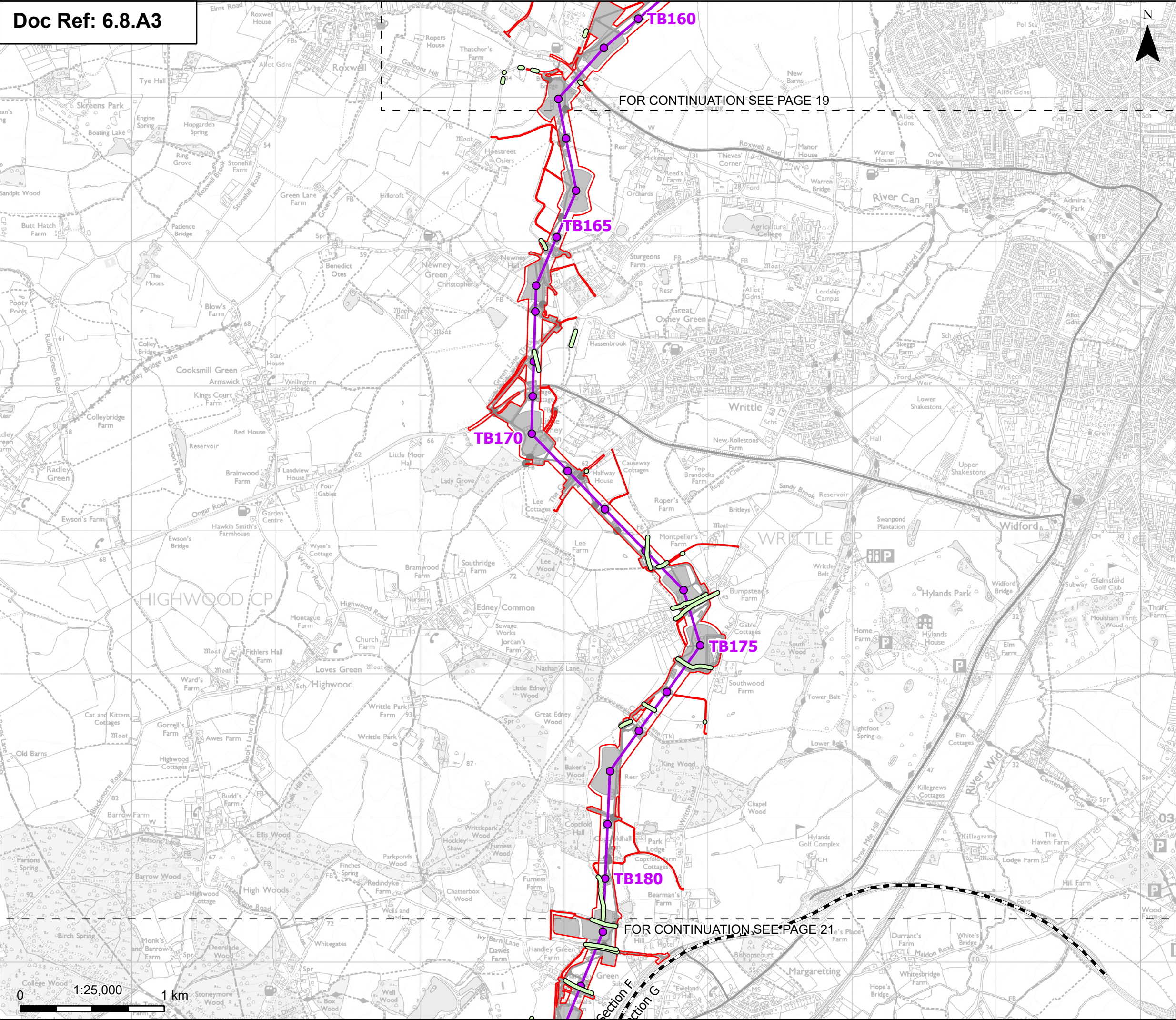
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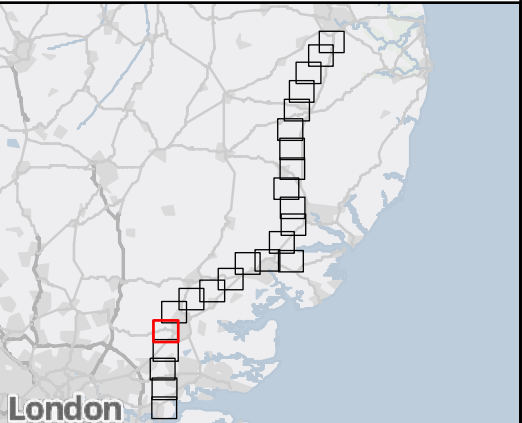
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Discipline specific constraints

Potentially important hedgerows that were not chosen for survey

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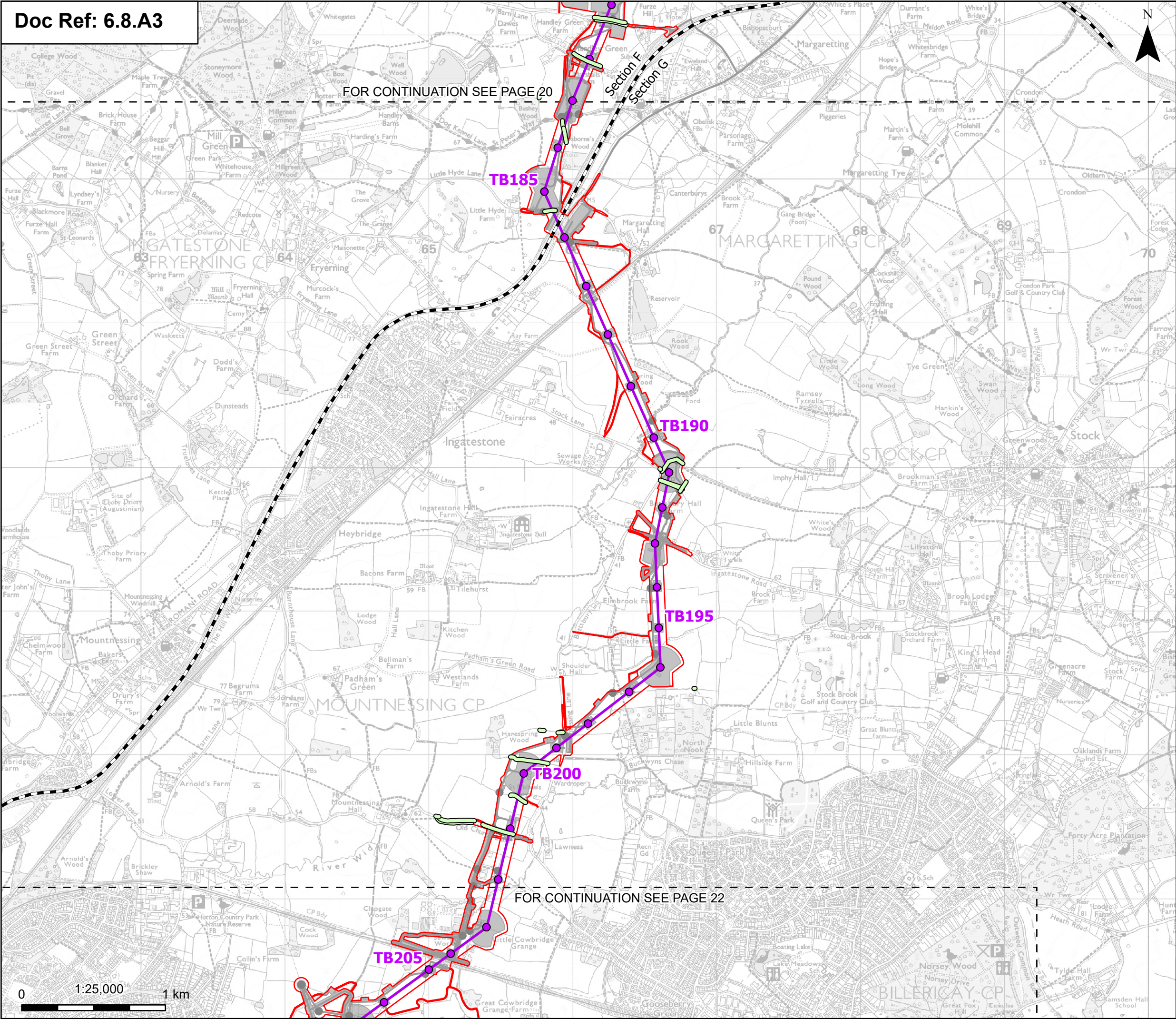
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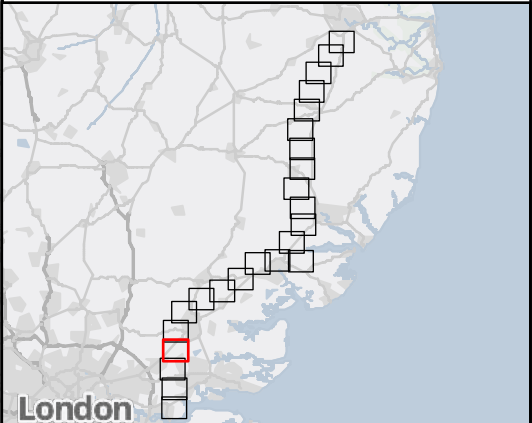
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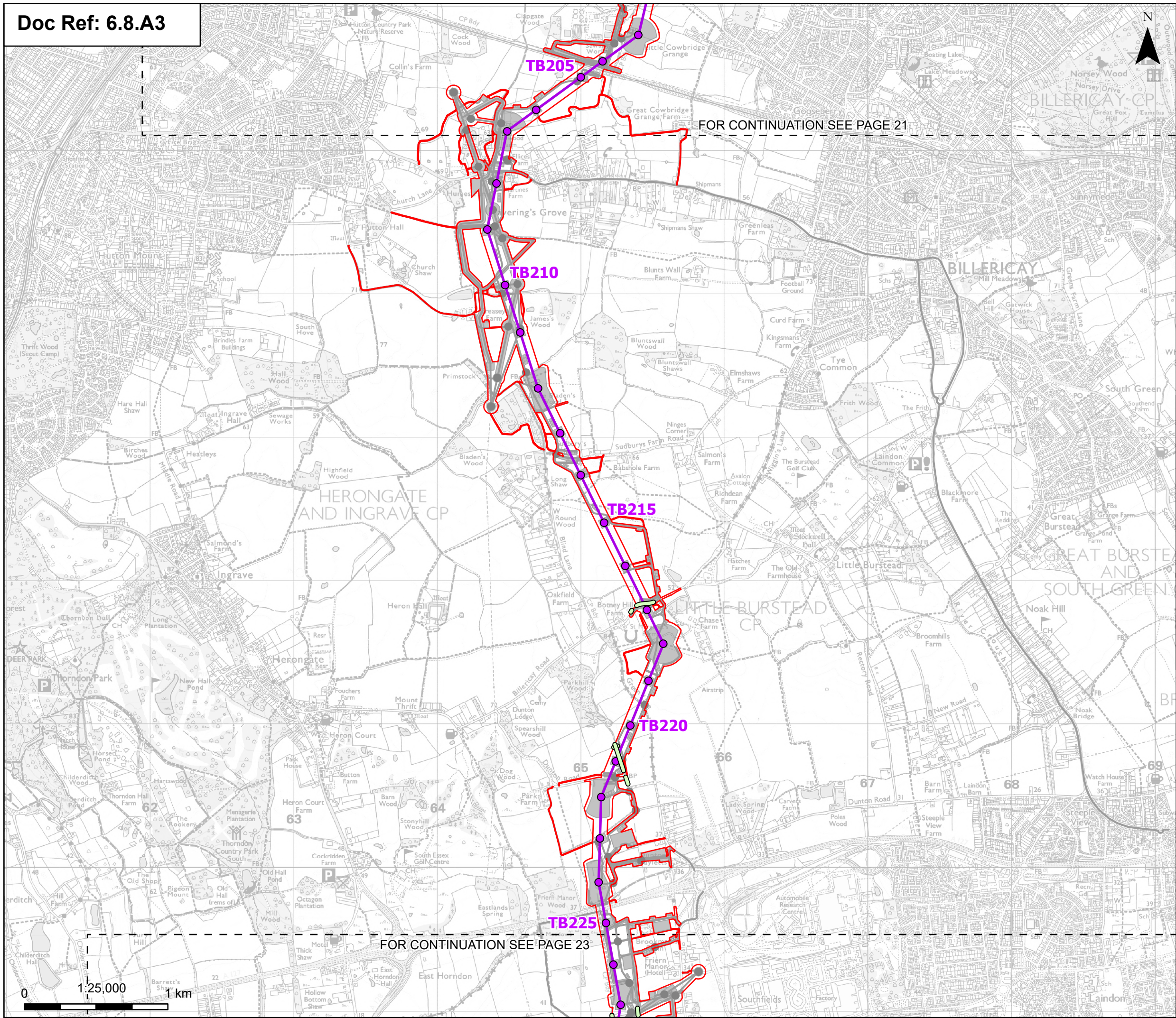
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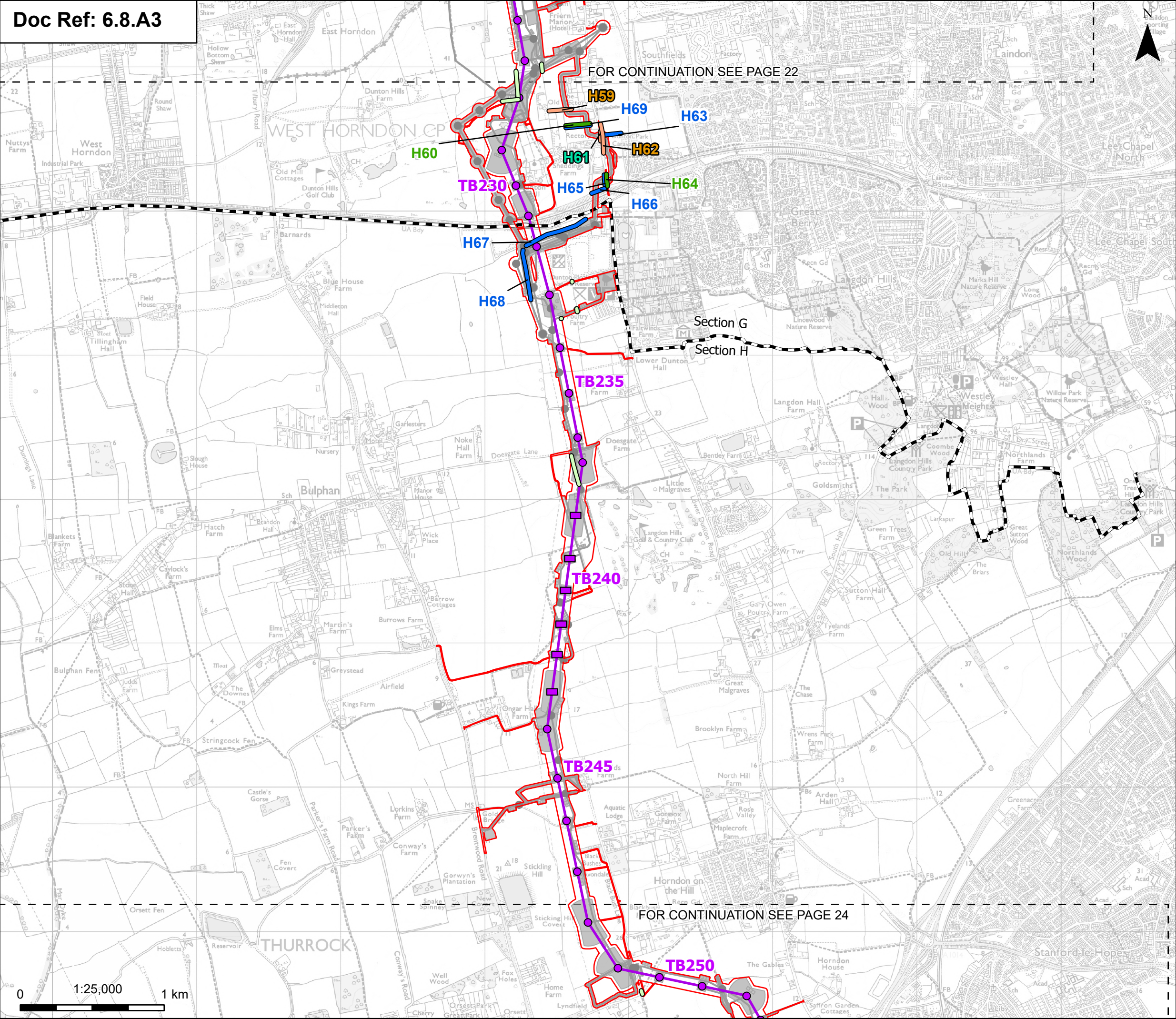
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Discipline specific constraints

Important hedgerows

Unimportant hedgerows

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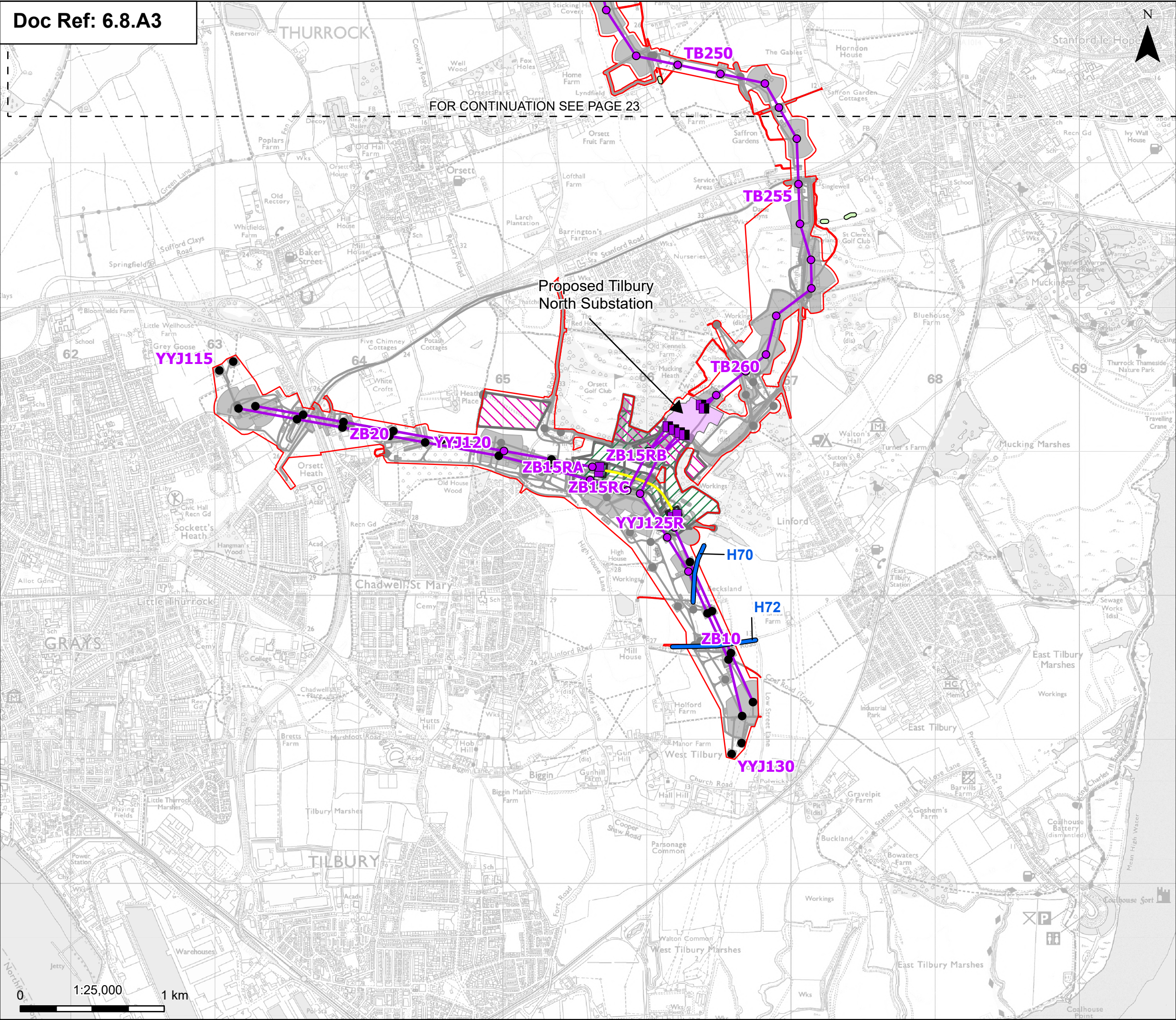
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Drawn	N. Banu	Date	21 Aug 25		
Checked	A. Fell	Date	21 Aug 25		
Approved	K. Burrows	Date	21 Aug 25		
Scale:	1:25,000	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	10059280		
Suitability Description: Accepted as Concept Stage					
Drawing Number: 10059280-ARC-EBD-ZZ-DR-ZZ-00247					Revision: A

Print Date: 15-08-25 10:30:39

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FOR CONTINUATION SEE PAGE 23



Order limits

Sheet index cutline

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(CSEC)

Environmental area

Environmental mitigation

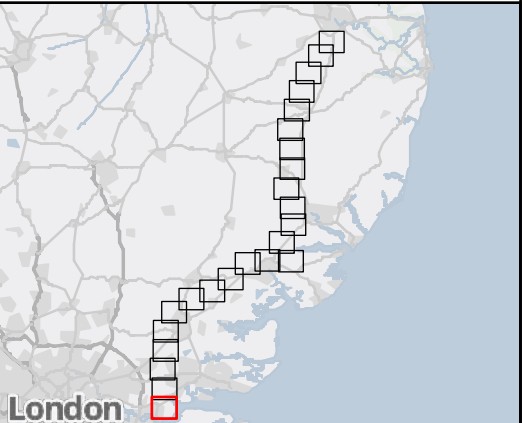
Other temporary and permanent construction and operational works

Unimportant hedgerows

Potentially important hedgerows that were not chosen for survey

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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A	Aug 2025	FOR DCO APPLICATION	NB	AF	KB
Rev	Date	Description	Drawn	Check	Approv

nationalgrid

PROJECT:

Norwich to Tilbury

Planning Inspectorate App Number: EN020027

Regulation 5(2)(a)

Title:
Figure A8.3.1 - Ecology and Biodiversity - Hedgerows Regulations Assessment
Page 24 of 24

Designed	A. Pinkney	Date	21 Aug 25
Drawn	N. Banu	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10059280

Suitability Description:

Accepted as Concept Stage

Drawing Number:

10059280-ARC-EBD-ZZ-DR-ZZ-00247

Revision:

A

Annex B.

Valuable Ground Flora Species in the Hedgerows Regulations

Annex B Valuable Ground Flora Species in the Hedgerows Regulations

Table A8.3.7 Valuable ground flora species in the Hedgerows Regulations

Scientific Name	Common Name
<i>Adoxa mochatellina</i>	Moschatel
<i>Ajuga reptans</i>	Bugle
<i>Allium ursinum</i>	Ramsons
<i>Anemone nemorosa</i>	Wood Anemone
<i>Arum maculatum</i>	Lord's-and-Ladies
<i>Athyrium filix-femina</i>	Lady-fern
<i>Blechnum spicant</i>	Hard-fern
<i>Brachypodium sylvaticum</i>	False Brome
<i>Bromopsis ramosa</i>	Hairy Brome
<i>Campanula latifolia</i>	Giant Bellflower
<i>Campanula trachelium</i>	Nettle-leaved Bellflower
<i>Carex sylvatica</i>	Wood Sedge
<i>Circaea lutetiana</i>	Enchanter's Nightshade
<i>Conopodium majus</i>	Pignut
<i>Dryopteris affinis</i>	Scaly Male-fern
<i>Dryopteris carthusiana</i>	Narrow Buckler-fern
<i>Dryopteris filix-mas</i>	Male-fern
<i>Epipactis helleborine</i>	Broad-leaved Helleborine
<i>Equisetum sylvaticum</i>	Wood Horsetail
<i>Euphorbia amygdaloides</i>	Wood Spurge
<i>Festuca gigantea</i>	Giant Fescue
<i>Fragaria vesca</i>	Wild Strawberry
<i>Galium odoratum</i>	Woodruff
<i>Galium saxatile</i>	Heath Bedstraw
<i>Geranium robertianum</i>	Herb-Robert
<i>Geum urbanum</i>	Wood Avens

Scientific Name	Common Name
<i>Hyacinthoides non-scripta</i>	Bluebell
<i>Lamiastrum galeobdolon</i>	Yellow Archangel
<i>Lathraea squamaria</i>	Toothwort
<i>Luzula sylvatica</i>	Greater Wood-rush
<i>Lysimachia nemorum</i>	Yellow Pimpernel
<i>Melampyrum pratense</i>	Common Cow-wheat
<i>Melampyrum sylvaticum</i>	Small Cow-wheat
<i>Melica uniflora</i>	Wood Melick
<i>Mercurialis perennis</i>	Dog's Mercury
<i>Milium effusum</i>	Wood Millet
<i>Orchis mascula</i>	Early –purple Orchid
<i>Oxalis acetosella</i>	Wood Sorrel
<i>Paris quadrifolia</i>	Herb Paris
<i>Phyllitis scolopendrium</i>	Hart's-tongue
<i>Poa nemoralis</i>	Wood Meadow-grass
<i>Polypodium vulgare</i>	Polypody
<i>Polystichum aculeatum</i>	Hard Shield-fern
<i>Polystichum setiferum</i>	Soft Shield-fern
<i>Potentilla erecta</i>	Tormentil
<i>Potentilla sterilis</i>	Barren Strawberry
<i>Primula elatior</i>	Oxlip
<i>Primula vulgaris</i>	Primrose
<i>Ranunculus auricomus</i>	Goldilocks Buttercup
<i>Sanicula europaea</i>	Sanicle
<i>Teucrium scorodonia</i>	Wood Sage
<i>Veronica montana</i>	Wood Speedwell
<i>Viola odorata</i>	Sweet Violet
<i>Viola reichenbachiana</i>	Early Dog-violet
<i>Viola riviniana</i>	Common Dog-violet

Annex C.

Scientific Names of Woody Species Identified in the Hedgerows Regulations

Annex C Scientific Names of Woody Species Identified in the Hedgerows Regulations

Table A8.3.8 Scientific names of woody species identified in the Hedgerows Regulations

Spp code	Latin name	English name	Spp code	Latin name	English code
Ac	<i>Acer campestre</i>	Field Maple	Pa	<i>Prunus avium</i>	Wild Cherry
Ag	<i>Alnus glutinosa</i>	Alder	Pp	<i>Prunus padus</i>	Bird Cherry
Bpe	<i>Betula pendula</i>	Silver Birch	Ps	<i>Prunus spinosa</i>	Blackthorn
Bpu	<i>Betula pubescens</i>	Downy Birch	Pyc	<i>Pyrus communis</i>	Pear
Bxs	<i>Buxus sempervirens</i>	Box	Qp	<i>Quercus petraea</i>	Sessile Oak
Cb	<i>Carpinus betulus</i>	Hornbeam	Qr	<i>Quercus robur</i>	Pedunculate Oak
Cos	<i>Cornus sanguinea</i>	Dogwood	Rc	<i>Rhamnus catharticus</i>	Buckthorn
Ca	<i>Corylus avellana</i>	Hazel	Ruv	<i>Ribes uva-crispa</i>	Gooseberry
Cla	<i>Crataegus laevigata</i>	Midland Hawthorn	Ros	<i>Rosa</i> sp(p)	Rose
Cm	<i>Crataegus monogyna</i>	Hawthorn	Rac	<i>Ruscus aculeatus</i>	Butcher's-broom
Cys	<i>Cytisus scoparius</i>	Broom	Sx	<i>Salix</i> sp(p)	Willow
DI	<i>Daphne laureola</i>	Spurge-laurel	Sxv	<i>Salix viminalis</i>	Osier
Ee	<i>Euonymus europaeus</i>	Spindle	Sn	<i>Sambucus nigra</i>	Elder
Fs	<i>Fagus sylvatica</i>	Beech	Sac	<i>Sorbus aucuparia</i>	Rowan
Fa	<i>Frangula alnus</i>	Alder Buckthorn	Sor	<i>Sorbus</i> sp(p)	Whitebeam
Fe	<i>Fraxinus excelsior</i>	Ash	Sot	<i>Sorbus torminalis</i>	Wild Service-tree
Hr	<i>Hippophae rhamnoides</i>	Sea-buckthorn	Tb	<i>Taxus baccata</i>	Yew
Ia	<i>Ilex aquifolium</i>	Holly	Tic	<i>Tilia cordata</i>	Small-leaved Lime
Jr	<i>Juglans regia</i>	Walnut	Tip	<i>Tilia platyphyllos</i>	Large-leaved Lime
Jc	<i>Juniperus communis</i>	Common Juniper	Ue	<i>Ulex europaeus</i>	Gorse
Llv	<i>Ligustrum vulgare</i>	Wild Privet	Ug	<i>Ulex gallii</i>	Western Gorse
Ms	<i>Malus sylvestris</i>	Crab Apple	Uml	<i>Ulex minor</i>	Dwarf Gorse
Pal	<i>Populus alba</i>	White Poplar	Um	<i>Ulmus</i> sp(p)	Elm
Pn	<i>Populus nigra sub-species betulifolia</i>	Black-poplar	VI	<i>Viburnum lantana</i>	Wayfaring-tree
Pot	<i>Populus tremula</i>	Aspen	Vop	<i>Viburnum opulus</i>	Guelder Rose
Pcan	<i>Populus x canescens</i>	Grey Poplar			

Annex D.

Hedgerow

Photographs

Annex D Hedgerow Photographs

Table A8.3.9 Hedgerow photographs

Project Hedgerow Photograph	
Section ID	
A	H1
	
B	H2
	

Project	Hedgerow	Photograph
Section	ID	

B	H3	
---	----	--



B	H4	
---	----	--



Project	Hedgerow	Photograph
Section	ID	

B	H5	
---	----	--



B	H6	
---	----	--



Project Hedgerow Photograph
Section ID

B H7



B H8



Project	Hedgerow	Photograph
Section	ID	

B	H9	
---	----	--



B	H10	
---	-----	--



Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

B	H11	
---	-----	--



B	H12a	Site not located within the Order Limits
---	------	--

B	H12b	
---	------	--



B	H13	Site not located within the Order Limits
---	-----	--

B	H14	Site not located within the Order Limits
---	-----	--

Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

B	H15	Site not located within the Order Limits
---	-----	--

B	H16	
---	-----	--



B	H17	
---	-----	--



Project	Hedgerow	Photograph
Section	ID	

B	H18
---	-----



B	H19
---	-----



Project	Hedgerow	Photograph
Section	ID	

B	H20	
---	-----	--



B	H21	
---	-----	--



Project	Hedgerow	Photograph
Section	ID	

B	H22a	
---	------	--



Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

B	H22b	
---	------	--



B	H23a	
---	------	--



Project Section	Hedgerow ID	Photograph
B	H23b	Site not located within the Order Limits
B	H24a	Site not located within the Order Limits
B	H24b	Site not located within the Order Limits
B	H25	

Project Section	Hedgerow	Photograph ID
-----------------	----------	---------------

B	H26a
---	------



B	H26b
---	------



Project	Hedgerow Photograph
Section	ID

C	H27
---	-----



C	H28
---	-----



Project Section	Hedgerow ID	Photograph
C	H29	Not surveyed
C	H30a	
C	H30b	

Project	Hedgerow	Photograph
Section	ID	

C	H31	
---	-----	--



C	H32	
---	-----	--



Project Hedgerow Photograph
Section ID

C H33



C H34



Project	Hedgerow	Photograph
Section	ID	

C	H35	
---	-----	--



C	H36	
---	-----	--



Project Section	Hedgerow ID	Photograph
C	H37	
C	H38	Not surveyed
C	H39	Site not located within the Order Limits
C	H40	

Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

C	H41	
---	-----	--



C	H42	
---	-----	--



C	H43	Not surveyed
---	-----	--------------

Project	Hedgerow	Photograph
Section	ID	

C	H44
---	-----



C	H45
---	-----



Project	Hedgerow	Photograph
Section	ID	

C	H46	
---	-----	--



Project	Hedgerow	Photograph
Section	ID	

D	H47
---	-----



D	H48
---	-----



Project Hedgerow Photograph
Section ID

D H49



D H50



Project	Hedgerow	Photograph
Section	ID	

E	H51
---	-----



E	H52
---	-----



Project	Hedgerow Photograph
Section	ID

E	H53
---	-----



E	H54
---	-----



E	H55	Site not located within the Order Limits
---	-----	--

F H56



Project	Hedgerow	Photograph
Section	ID	

F	H57	
---	-----	--



F	H58	
---	-----	--



Project	Hedgerow Photograph
Section	ID

G	H59
---	-----



G	H60	Not surveyed
---	-----	--------------

G	H61
---	-----



Project Section	Hedgerow ID	Photograph
G	H62	
G	H63	
G	H64	Not surveyed

Project	Hedgerow	Photograph
Section	ID	

G	H65
---	-----



G	H66
---	-----



Project	Hedgerow Photograph
Section	ID

H	H67
---	-----



H	H68
---	-----



Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

H	H69	
---	-----	--



H	H70	
---	-----	--



Project Section	Hedgerow ID	Photograph
-----------------	-------------	------------

H	H71	Site not located within the Order Limits
---	-----	--

H	H72	
---	-----	--



H	H73	Site not located within the Order Limits
---	-----	--

H	H74a	Site not located within the Order Limits
---	------	--

H	H74b	Site not located within the Order Limits
---	------	--

H	H75	Site not located within the Order Limits
---	-----	--

H	H76	Site not located within the Order Limits
---	-----	--

H	H77	Site not located within the Order Limits
---	-----	--

Annex E.

All Hedgerows Selected for Hedgerows Regulations Assessment

Annex E All Hedgerows Selected for Hedgerows Regulations Assessment

Table A8.3.10 All hedgerows selected for hedgerows regulations assessment

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
A	H1	4	Yes	No	Yes	No	No	Yes	No	No	Yes
B	H2	4	Yes	No	No	Yes	No	No	Yes	Yes	Yes
B	H3	4	Yes	No	No	No	No	No	No	No	No
B	H4	8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B	H5	4	No	No	Yes	No	No	Yes	Yes	No	No
B	H6	9	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
B	H7	6	No	Yes	Yes	Yes	No	No	No	No	Yes
B	H8	8	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes
B	H9	5	No	No	Yes	No	Yes	Yes	No	No	No
B	H10	7	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes
B	H11	6	Yes	No	No	No	No		No	Yes	No
B	H12a	Site not located within the Order Limits									-
B	H12b	4	Yes	No	Yes	Yes	No	Yes	No	No	Yes

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
B	H13	Site not located within the Order Limits									-
B	H14	Site not located within the Order Limits									-
B	H15	Site not located within the Order Limits									-
B	H16	6	No	No	Yes	Yes	No	Yes	No	No	Yes
B	H17	6	Yes	No	Yes	No	Yes	Yes	No	No	Yes
B	H18	7	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes
B	H19	6	Yes	No	Yes	No	No	Yes	Yes	No	Yes
B	H20	6	No	No	Yes	Yes	Yes	Yes	No	No	Yes
B	H21	5	Yes	No	Yes	Yes	No	Yes	No	No	Yes
B	H22a	5	No	No	Yes	Yes	Yes	Yes	No	No	No
B	H22b	4	No	No	Yes	No	No	Yes	No	No	No
B	H23a	6	No	No	Yes	Yes	No	Yes	No	No	No
B	H23b	Site not located within the Order Limits									-
B	H24a	Site not located within the Order Limits									-
B	H24b	Site not located within the Order Limits									-
B	H25	5	Yes	No	Yes		Yes	Yes	No	Yes	Yes

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
B	H26a	5	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
B	H26b	7	Yes	No	Yes		No	Yes	No	No	Yes
C	H27	3	No	No	Yes	Yes	No	Yes	No	No	No
C	H28	5	No	No	Yes	Yes	No	Yes		No	No
C	H29	Not surveyed									-
C	H30a	5	Yes	No	Yes	No	No	Yes	No	No	Yes
C	H30b	2	Yes	No	Yes	No	No	Yes	No	No	No
C	H31	4	Yes	No		No	No	No	No	No	No
C	H32	5	Yes	No	Yes	Yes	No	Yes	No	No	Yes
C	H33	2	Yes	No	Yes	No	No	No	No	Yes	No
C	H34	3	Yes	No	Yes	No	No	No	No	Yes	No
C	H35	5	Yes	No	Yes	No	No	Yes	No	No	Yes
C	H36	5	Yes	No	Yes	No	Yes	No	No	No	Yes
C	H37	2	No	No	Yes	Yes	No	No	Yes	No	No
C	H38	Not surveyed									-
C	H39	Site not located within the Order Limits									-

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
C	H40	5	Yes	No	Yes	Yes	No	No	No	No	No
C	H41	3	No	No	Yes	No	No	Yes	No	No	No
C	H42	3	No	No	Yes	Yes	No	No	No	No	No
C	H43	Not surveyed									-
C	H44	6	Yes	No	Yes	No	No	Yes	No	Yes	Yes
C	H45	5	Yes	No	Yes	No	No	No	Yes	Yes	Yes
C	H46	6	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
D	H47	3	No	No	Yes	No	No	No	No	No	No
D	H48	4	Yes	No	Yes	Yes	No	Yes	No	No	Yes
D	H49	2	Yes	No	Yes	No	No	Yes	No	No	No
D	H50	4	No	No	Yes	No	Yes	Yes	Yes	No	No
E	H51	5	Yes	No	Yes	No	No	Yes	No	No	Yes
E	H52	7	No	No	Yes	No	No	Yes	No	No	Yes
E	H53	4	Yes	No	Yes	No	No	Yes	No	No	Yes
E	H54	3	Yes	No	No	No	No	Yes	No	No	No
E	H55	Site not located within the Order Limits									-

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
F	H56	6	Yes	Yes	Yes	No	No	No	No	Yes	Yes
F	H57	5	Yes	No	No	Yes	No	Yes	No	No	Yes
F	H58	6	No	No	No	Yes	No	Yes	No	No	Yes
G	H59	4	Yes	Yes	Yes	Yes	No	No	No	No	Yes
G	H60	Not surveyed									-
G	H61	6	Yes	No	No	Yes	No	No	No	Yes	Yes
G	H62	4	Yes	No	No	No	No	Yes	No	Yes	Yes
G	H63	3	Yes	No	Yes	Yes	No	Yes	No	No	No
G	H64	Not surveyed									-
G	H65	3	Yes	No	Yes	Yes	No	No	No	Yes	No
G	H66	4	No	No	No	No	No	No	No	Yes	No
H	H67	3	Yes	No	No	No	No	Yes	No	No	No
H	H68	3	No	No	Yes	No	No	Yes	Yes	No	No
H	H69	2	No	No	No	No	No	No	No	No	No
H	H70	1	Yes	No	Yes	No	No	No	No	No	No
H	H71	Site not located within the Order Limits									-

Project Section	Hedgerow ID	Average Number of Recognised Woody Species per 30 m	Adjacent to bridleway/ footpath	Bank/ wall	Intact (<10% of total length are gaps)	Trees once every 50 m and diameter of at least 20 cm	At least 3 valuable ground flora species	Ditch	Connection Score of at least 4	Parallel hedgerows within 15 m	'Important' hedgerow
H	H72	3	Yes	No	No	No	No	No	No	No	No
H	H73	Site not located within the Order Limits									-
H	H74a	Site not located within the Order Limits									-
H	H74b	Site not located within the Order Limits									-
H	H75	Site not located within the Order Limits									-
H	H76	Site not located within the Order Limits									-
H	H77	Site not located within the Order Limits									-

Annex F. Woody Species and Valuable Ground Flora Species Recorded

Annex F Woody Species and Valuable Ground Flora Species Recorded

Note: Only common names are provided in this Annex. See Annex B for the scientific name of the ground flora species and Annex C for the scientific names of the woody species.

Table A8.3.11 Woody species and valuable ground flora species recorded

Project Section	Hedgerow ID	Recognised Woody Species (Section One)	Recognised Woody Species (Section Two if Applicable)	Recognised Woody Species (Section Three if Applicable)	Average Count	Valuable Ground Flora Species	'Important' Hedgerow
A	H1	Hawthorn, elder, ash and blackthorn	Hawthorn, crab apple, hazel, field maple, and elm	Hawthorn, elder, and crab apple	4	Lord's-and-ladies, false brome	Yes
B	H2	Hawthorn, field maple, rose, pedunculate oak	Hawthorn, pedunculate oak rose, spindle, ash, and wild privet	Hawthorn, elder, and rose	4	None recorded	Yes
B	H3	Spindle, hawthorn, and hazel	Crab apple, rose, hazel, hawthorn, and field maple	Bird cherry, hawthorn, hazel, field maple and rose	4	None recorded	No
B	H4	Ash, elm, willow, hawthorn, field maple, blackthorn, pedunculate oak, hazel, and rose	Hazel, hawthorn, elm, pedunculate oak, field maple, dogwood, blackthorn, and rose	Dogwood, hazel, hawthorn, blackthorn, pedunculate oak, and rose	8	Herb-robert, lord's-and-ladies, false brome, wood avens/ herb bennet, wood meadow grass, barren strawberry, and primrose	Yes

Project Section	Hedgerow ID	Recognised Woody Species (Section One)	Recognised Woody Species (Section Two if Applicable)	Recognised Woody Species (Section Three if Applicable)	Average Count	Valuable Ground Flora Species	'Important' Hedgerow
B	H5	Willow, hawthorn, and hazel	Hazel, hawthorn, field maple, ash, and willow		4	None recorded	No
B	H6a	Ash, hazel, hawthorn, elm, field maple, spurge-laurel, rose, dogwood, and pedunculate oak	Ash, hawthorn, hazel, field maple, pedunculate oak, spurge-laurel, elder, blackthorn, and spindle		9	Dog's mercury, lord's-and-ladies, wood sedge, false brome, wood speedwell, primrose, and wood horsetail	Yes
B	H6b	Ash, hazel, hawthorn, elm, field maple, spurge-laurel, rose, dogwood, and pedunculate oak	Ash, hawthorn, hazel, field maple, pedunculate oak, spurge-laurel, elder, blackthorn, and spindle		9	Dog's mercury, lord's-and-ladies, wood sedge, false brome, wood speedwell, primrose, and wood horsetail	Yes
B	H7	Hawthorn, hazel, and pedunculate oak	Ash, elder, field maple, pedunculate oak, hawthorn, spindle, hazel, blackthorn, and elm		6	False brome, and lord's-and-ladies	Yes
B	H8	Blackthorn, hazel, hawthorn, field maple, dogwood, and rose	Ash, hawthorn, hazel, field maple, rose, dogwood, elder, willow and spindle		8	False brome, lord's-and-ladies, and Dog's mercury	Yes

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B	H9	Ash, field maple, blackthorn, hawthorn, and rose			5	Dog's mercury, lord's-and-ladies, wood-avens/ herb-bennet, and false brome	No
B	H10	Ash, elm, hazel, and dogwood	Field maple, rose, pedunculate oak, dogwood, elm, hazel, hawthorn, blackthorn, and willow		7	Lord's-and-ladies, Dog's mercury, false brome, herb-robert	Yes
B	H11	Dogwood, field maple, hawthorn, willow, hazel, and ash	Ash, hazel, field maple, hawthorn, and blackthorn	Blackthorn, ash, hazel, field maple, hawthorn, dogwood, and rose	6	None recorded	No
B	H12a	Site not located within the Order Limits					-
B	H12b	Blackthorn, hazel, field maple, and elm	Hazel, field maple, and blackthorn		4	Dog's mercury, and lord's-and-ladies	Yes
B	H13	Site not located within the Order Limits					-
B	H14	Site not located within the Order Limits					-
B	H15	Site not located within the Order Limits					-

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B	H16	Hawthorn, blackthorn, field maple, pedunculate oak, elder, elm, and willow	Blackthorn, field maple, hawthorn, ash, rose, and Hazel	Blackthorn, field maple, hawthorn, pedunculate oak, and Hazel	6	None recorded	Yes
B	H17	Hazel, field maple, hawthorn, pedunculate oak, blackthorn, elm, and rose	Ash, blackthorn, hazel, field maple, elm, and pedunculate oak		6	Bluebell, herb-robert, dog's mercury, lord's-and-ladies, false brome, and primrose	Yes
B	H18	Blackthorn, dogwood, rose, elder, and hazel	Hazel, field maple, rose, dogwood, spurge-laurel, pedunculate oak, spindle	Hazel, field maple, ash, elder, dogwood, blackthorn, elm, hawthorn	7	False brome and dog's mercury	Yes
B	H19	Hazel, field maple, hawthorn, and rose	Spurge-laurel, pedunculate oak, field maple, wayfaring-tree, dogwood, hazel, elm and ash		6	False brome and lord's-and-ladies	Yes
B	H20	Field maple, elm, hazel, and rose	Pedunculate oak, field maple, hazel, rose, willow, elder, and elm	Ash, rose, spindle, field maple, hazel, and pedunculate oak	6	Lord's-and-ladies, dog's mercury, and false brome	Yes

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B	H21	Dogwood, spindle, pedunculate oak, field maple, and hazel	Field maple, rose, elder, hazel, and ash	Hazel, field maple, elder, dogwood, and rose	5	Wood avens/herb bennet	Yes
B	H22a	Ash, field maple, elder, hawthorn, and dogwood	None recorded		5	None recorded	No
B	H22b	Hawthorn, pedunculate oak, rose, field maple, and elder	Pedunculate oak, spindle, and elder		4	False brome, Wood avens/herb bennet, and dog's mercury	No
B	H23a	Ash, pedunculate oak, elm, and hawthorn	Elder, elm, hawthorn, hazel, and rose		5	None recorded	No
B	H23b	Site not located within the Order Limits					-
B	H24a	Site not located within the Order Limits					-
B	H24b	Site not located within the Order Limits					-
B	H25	Dogwood, hawthorn, hazel, ash, rose, spurge-laurel, and spindle	Hawthorn, spindle, hazel, and field maple	Rose, hawthorn, field maple, dogwood, and elder	5	Herb-robert, dog's mercury, primrose, wood avens/herb bennet, and false brome	Yes

Project Section	Hedgerow ID	Recognised Woody Species (Section One)	Recognised Woody Species (Section Two if Applicable)	Recognised Woody Species (Section Three if Applicable)	Average Count	Valuable Ground Flora Species	'Important' Hedgerow
B	H26a	Field maple, blackthorn, hawthorn, hazel, and rose			5	Dog's mercury, primrose, lord's-and-ladies, herb-robert, wood avens/herb bennet, and false brome	Yes
B	H26b	Blackthorn, hazel, field maple, dogwood, hawthorn, and elder	Rose, field maple, dogwood, elder, blackthorn, pedunculate oak, and spurge-laurel		7	Lord's-and-ladies and dog's mercury	Yes
C	H27	Hazel, elder and blackthorn			3	None recorded	No
C	H28	Bird cherry, blackthorn, hawthorn, and ash	Ash, blackthorn, bird cherry, hawthorn, and beech	Ash, hawthorn, bird cherry, blackthorn, field maple, and pedunculate oak	5	None recorded	No
C	H29	Not surveyed					-
C	H30a	Ash, field maple, hazel, blackthorn, and spindle	Blackthorn, pedunculate oak, hazel, and field maple	Pedunculate oak, hawthorn, rose, blackthorn, ash, and field maple	5	None recorded	Yes
C	H30b	Bird cherry and pedunculate oak	None recorded	None recorded	2	None recorded	No

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C	H31	Elm, hazel, and hawthorn	Rose, dogwood, elm, blackthorn, hawthorn, and hazel	Hawthorn, blackthorn, and rose	4	None recorded	No
C	H32	Ash, elm, field maple, blackthorn, and rose	Blackthorn, field maple, elm, and rose		5	None recorded	Yes
C	H33	Elm and rose			2	Lord's-and-ladies	No
C	H34	Holly, elm, and rose	Elder, elm, rose, and Holly	Rose, Holly and Elm	3	Lord's-and-ladies	No
C	H35	Ash, blackthorn, elder, pedunculate oak and rose			5	Lord's-and-ladies	Yes
C	H36	Blackthorn, holly, elder and elm	Hawthorn, elm, elder, field maple, and pedunculate oak	Blackthorn, ash, elm, pedunculate oak and field maple	5	Lord's-and-ladies, wood avens/herb bennet, and wild strawberry	Yes
C	H37	Hawthorn and willow	Hawthorn		2	None recorded	No
C	H38	Not surveyed					-
C	H39	Site not located within the Order Limits					-
C	H40	Field maple, spindle, rose, hawthorn, blackthorn and pedunculate oak	Blackthorn, hawthorn and pedunculate oak		5	None recorded	No

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C	H41	Ash, pedunculate oak and blackthorn	None recorded		3	None recorded	No
C	H42	Hawthorn, pedunculate oak and elder	Hawthorn, pedunculate oak and elder	Hawthorn, pedunculate oak and elder	3	None recorded	No
C	H43	Not surveyed					-
C	H44	Holly, elm, hawthorn, pedunculate oak and elder	Elder, rose, holly, elm, hazel, and ash		6	None Recorded	Yes
C	H45	Bird cherry, hawthorn, hazel, and pedunculate oak	Blackthorn, field maple, hawthorn, pedunculate oak, rose and elm		5	Lord's-and-ladies and bluebell	Yes
C	H46	Hawthorn, hazel, rose, blackthorn, elm, and elder	Pedunculate oak, hawthorn, blackthorn, elm, rose, and elder		6	None recorded	Yes
D	H47	Hawthorn and rose	Field maple, hawthorn and dogwood	Elder, hawthorn and rose	3	None recorded	No
D	H48	Rose, ash, elm, blackthorn and field maple	Elm, blackthorn and hawthorn	Elder, elm and pedunculate oak	4	None recorded	Yes
D	H49	Hawthorn	Rose, pedunculate oak and hawthorn	Hawthorn, rose and blackthorn	2	None recorded	No

Project Section	Hedgerow ID	Recognised Woody Species (Section One)	Recognised Woody Species (Section Two if Applicable)	Recognised Woody Species (Section Three if Applicable)	Average Count	Valuable Ground Flora Species	'Important' Hedgerow
D	H50	Hazel, elder and hawthorn	Alder, elder, hawthorn, hazel		4	Ramsons, dog's mercury and lord's-and-ladies	No
E	H51	Elder, elm, blackthorn, field maple, and hazel	Blackthorn, elm, hawthorn, and rose	Crab apple, blackthorn, elm, rose, and hawthorn	5	None recorded	Yes
E	H52	Blackthorn, elder, white poplar, elm, field maple, hawthorn, and rose			7	None recorded	Yes
E	H53	Wild pear, elm, crab apple and black thorn	Blackthorn, elder and elm		4	None recorded	Yes
E	H54	Field maple, elder, dogwood, and hazel	Blackthorn, hawthorn, hazel and rose		3	None recorded	No
E	H55	Site not located within the Order Limits					-
F	H56	Blackthorn, pedunculate oak, rose, field maple, and elm	Field maple, hazel, ash, blackthorn, elm, and rose		6	Wood avens/herb bennet	Yes
F	H57	Elder, blackthorn, field maple, pedunculate oak and hawthorn			5	None recorded	Yes
F	H58	Blackthorn, elder, hawthorn, field maple, ash, and rose	Blackthorn, field maple, hawthorn, hazel, and elder		6	None recorded	Yes

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G	H59	Elm and blackthorn	Elm, hawthorn, blackthorn, wild cherry, and crab apple		4	None recorded	Yes
G	H60	Not surveyed					-
G	H61	Wild cherry, rose, field maple hawthorn, hazel, and blackthorn			6	None recorded	Yes
G	H62	Hawthorn, field maple, rose, and willow	Hawthorn, blackthorn, rose, and field maple	Blackthorn, elm, and hawthorn	3	None recorded	Yes
G	H63	Hawthorn, blackthorn, wild privet	Hawthorn, blackthorn, wild privet		3	None recorded	No
G	H64	Not surveyed					-
G	H65	Elder, blackthorn, and hawthorn			3	None recorded	No
G	H66	Blackthorn, pedunculate oak, rose and hawthorn			4		No
H	H67	Blackthorn, elder, hawthorn and pedunculate oak	Blackthorn and hawthorn	Blackthorn, hawthorn, and elder	3	None recorded	No
H	H68	Blackthorn, elder, and hawthorn	Blackthorn and pedunculate oak	Blackthorn, hawthorn, and pedunculate oak	3	None recorded	No

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H	H69	Hawthorn and rose	Hawthorn and rose		2	Wood avens/herb bennet	No
H	H70	Elm	Elm	Elm	1	None recorded	No
H	H71	Site not located within the Order Limits					-
H	H72	Ash, elm, hawthorn, and elder	Elm	Elm, pedunculate oak, and hawthorn	3	None recorded	No
H	H73	Site not located within the Order Limits					-
H	H74a	Site not located within the Order Limits					-
H	H74b	Site not located within the Order Limits					-
H	H75	Site not located within the Order Limits					-
H	H76	Site not located within the Order Limits					-
H	H77	Site not located within the Order Limits					-

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