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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) 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 the 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), issued to the Planning Inspectorate in November 2022, identified the need for otter *Lutra lutra* and water vole *Arvicola amphibius* surveys to be conducted for the Project.
- 1.1.4 Watercourses and associated riparian areas, which could provide suitable habitat for otter and water vole are located within the Order Limits. The general approach to impact assessment for these species is to ensure that construction activities have minimal negative effects on their populations and habitats. This involves avoiding effects to sensitive habitats, mitigating any temporary disturbances, and implementing conservation measures.
- 1.1.5 The Project has also been sub-divided into eight geographical sections for reader accessibility, based largely on Local Planning Authority boundaries. As shown on Figure A8.13.1: Otter and Water Vole Desk Study Results in Annex A and comprise:
  - Section A South Norfolk Council
  - Section B Mid-Suffolk District Council
  - 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.

#### 1.2 Brief and Objectives

- 1.2.1 The brief for the survey work was to obtain baseline data to inform the impact assessment for the Project. This was achieved by undertaking a comprehensive suite of surveys focused on otter and water vole presence. The objectives were as follows:
  - Ascertain the presence or potential absence of otter and water vole within the Order Limits
  - If identified, map the distribution of otter resting sites and water vole presence within the Survey Area
  - Compile and present the survey outcomes in a baseline report.
- 1.2.2 The results of these surveys have informed Project design and mitigation measures.

#### 1.3 Study and Survey Area

#### Study Area

- 1.3.1 The following Study Areas were used for the otter and water vole desk study:
  - Special Areas of Conservation (SACs) where otter is a qualifying feature within the Order Limits and up to 10 km from the Order Limits
  - Statutory and non-statutory designated sites where otter and/or water vole is identified as present in the citation or description within the Order Limits and up to 2 km from the Order Limits
  - Individual records of otter and/or water vole species within the Order Limits and up to 2 km from the Order Limits.

#### Survey Area

- 1.3.2 Watercourses which have the potential to be affected by the Project were surveyed 200 m up and downstream of the point of effect. Where the watercourse did not extend to 200 m, the full extent of the watercourse was surveyed.
- 1.3.3 Further details of the otter and water vole Survey Area is provided in Methodology (Section 3) below.

# 2. Relevant Legislation and Policy

#### 2.1 Legal Compliance

2.1.1 Surveys have been undertaken in accordance with current legislation in the context of the Project. A summary of the relevant legislation is provided in Table A8.13.1.

Table A8.13.1 Legal compliance

#### Legislation

#### **Details**

Conservation of Habitats and Species Regulations 2017, as amended in 2019 ('Habitats 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 (SACs and Special Protection Areas (SPAs)) and to provide protection for these sites through designation, planning and other controls. Otter is listed on Annex II of the European Habitats Directive. This listing signifies that SACs can be designated to safeguard this species.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill or injure, disturb, or trade in, damage or destroy a breeding site or resting place of the animals such as otter that are listed in Schedule 2. However, these actions can be made lawful through the granting of licences 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.

The Wildlife and Countryside Act 1981, as amended (WCA) 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 WCA grants full legal protection to otter. The Act prohibits intentional killing, injuring, or capturing of otter, as well as to disturb otter whilst they occupy a structure or place used for shelter or protection, or to obstruct access to a place of shelter or protection. Additionally, it is an offence to sell, possess, or transport otter or any parts of otter without a licence.

Water vole is afforded protection under the WCA. The Act makes it an offence to intentionally kill, injure, or capture water vole, possess or control them alive or dead. It is an offence to intentionally or recklessly damage or destroy a structure or place used for shelter or protection, disturb them in a place used for shelter or protection, or obstruct access to a place used for shelter and protection. It is illegal to sell, possess, or transport water vole or their parts without a licence.

Legislation	Details
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 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.  Otter and water vole are species of principal importance as listed in s41.

## 2.2 Planning Policy

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

# 3. Methodology

#### 3.1 Desk Study

- 3.1.1 A desk study was undertaken in September 2023 and subsequently updated in April 2025. The desk study identified records for otter and water vole within 2 km of the Order Limits over the past 10 years as per the national guidance (Department for Environment, Food and Rural Affairs; Defra, 2024). Records were obtained from the following Local Environmental Record Centres (LERCs):
  - Norfolk Biodiversity Information Service (NBIS)
  - Suffolk Biodiversity Information Service (SBIS)
  - Essex Field Club (EFC).
- 3.1.2 The record centres also provided information on non-statutory designated sites within 2 km of the Order Limits; these were County Wildlife Sites (CWS) and Local Wildlife Sites (LWS). Non-statutory designated sites were reviewed for any mention of otter and water vole in their site description.
- 3.1.3 A search for SACs within 10 km of the Order Limits, where otter is a qualifying feature, was conducted using freely downloadable datasets, available from Multi Agency Geographic Information for the Countryside (MAGIC) (Natural England, 2025) and the Joint Nature Conservation Committee (JNCC) website.
- 3.1.4 A further search of Sites of Special Scientific Interest (SSSIs) within 2 km of the Order Limits was conducted using MAGIC, where otter and/or water vole is identified as present in the citation.
- 3.1.5 A search for mitigation licences for otter and water vole within 2 km of the Order Limits was also completed using MAGIC.
- 3.1.6 The National Water Vole Database and Mapping Project (McGuire, C. and Morse, A., 2020) was reviewed for information on trends in water vole populations at a regional and national level.

#### 3.2 Field Survey

#### **Targeted Species Surveys**

- 3.2.1 Within the Order Limits, 555 potential watercourses were identified through a desk study that would be directly affected by either haul road crossings, underground cabling, and/or drainage outflow locations. These were subject to review which reduced this number down to 204 watercourses that may hold water and have suitability for otter or water vole.
- 3.2.2 In 2023 and 2024, 142 of the affected watercourses were surveyed for the presence of otter and water vole.

- 3.2.3 Given the size and scale of the Project, water vole and otter surveys will continue in 2025 for completeness. This report includes data obtained up to the end of March 2025 and covers approximately 65% of the affected watercourses. Surveys conducted beyond the end of March 2025 will be included in a further information report as reported in Chapter 8: Ecology and Biodiversity (document reference 6.8). For the purpose of this ES (Volume 6 of the DCO application) a reasonable worst-case scenario for the results of these surveys for both water vole and otter has been assumed, based on records obtained from desk study, the results of the water vole and otter surveys across the rest of the Project and the type of watercourses present in and around the Order Limits.
- 3.2.4 The otter and water vole surveys have been completed in accordance with otter and water vole good practice guidance (Chanin, 2003; Dean *et al.*, 2016; Liles, 2003; and Chanin, 2005) and Chartered Institute of Ecology and Environmental Management (CIEEM) competencies for undertaking otter surveys (CIEEM, 2013).
- 3.2.5 Surveys consisted of an in-channel search for evidence indicating the presence of otter and/or water vole. For watercourses where in-channel surveys were deemed inappropriate, or the in-channel surveys judged to be unsafe, searches were undertaken from the banks of the watercourse, and binoculars used to assess inaccessible areas.
- 3.2.6 Where field signs indicating the local presence of otter and water vole were found during other ecological surveys undertaken for the Project, these were recorded as incidental records and have been referenced in alphanumerical order (e.g., I1, I2, I3 etc.) and included in this report.
- 3.2.7 Any evidence of American mink (*Neovison vison*) was recorded as this species has been found to be a threat to water vole.

#### Otter

- 3.2.8 Evidence recorded for otter included spraints, footprints, feeding stations, resting sites, and natal holts. Field signs were assessed as indicating confirmed or potential presence of otter, depending on the confidence of the sign to have been left by an otter. Only otter spraints, footprints and sightings were used to confirm their presence. All other field signs, including potential natal holts and resting places, were used as an indicator of potential presence.
- 3.2.9 In this report, 'resting site / holt' is a general term encompassing couches, lay-ups and non-natal holts. This is defined as any location, above or below ground, that could be used by an otter for resting but is not used to give birth to and rear their young. Natal holts are defined as underground or enclosed structures used by otters to give birth to and rear their young. Full definitions of otter ecology terms are provided in the Glossary at the end of this document.
- 3.2.10 Resting sites / holts were recorded at suitable locations and structures where any of the following signs were present:
  - Spraint or footprint within tunnel or immediate ground outside
  - Scratch marks and/or body rubbing against tunnel wall
  - Otter hair within tunnel or immediate ground outside.

3.2.11 Watercourses were surveyed once for otter. If the watercourse required a second visit, for instance for a water vole survey, a second search for evidence of otter was conducted.

#### **Water Vole**

- 3.2.12 Evidence recorded for water vole included:
  - Latrines
  - Burrows
  - Runs
  - Footprints
  - Feeding remains and stashes
  - Droppings
  - Sightings.
- 3.2.13 Field signs were assessed as indicating confirmed or potential presence of water vole, depending on the confidence that the sign was left by water vole. Only water vole latrines and water vole sightings were used to confirm their presence. All other field signs, including potential burrows, were used as an indicator of potential presence.
- 3.2.14 Watercourses assessed as suitable for water vole based on the habitat suitability assessment (see below) were subject to two surveys, one occurring between mid-April and the end of June and the second between July and October.
- 3.2.15 No second survey visit was required if a confirmatory sign of presence, for instance a latrine or sighting of a water vole, was recorded in the first visit. All other evidence was recorded as potential evidence.
- 3.2.16 No second survey visit was required if the watercourse was assessed as unsuitable for water vole (see Habitat Suitability Assessment below).

#### Habitat Suitability Assessment

- 3.2.17 In relation to otter, Chanin (2003) concluded there is no evidence that the recolonisation of UK waterways by otter would be impeded by factors such as anthropogenic disturbance and availability of resting places. As there has been conflicting results regarding habitat requirements of otter (Chanin, 2003), from research conducted on the quality of riparian habitats and those surrounding watercourses, a habitat suitability assessment for otter of watercourses was not deemed appropriate.
- 3.2.18 As part of the field survey watercourses were subjected to a habitat suitability assessment to determine their suitability to support water vole based on guidance from the Water Vole Mitigation Handbook (Dean *et al.*, 2016).
- 3.2.19 Each watercourse that was identified as potentially suitable to support water vole was surveyed 200 m up and downstream of the point of effect, in line with guidelines in the Water Vole Mitigation Handbook (Dean *et al.*, 2016).

- 3.2.20 Suitability was assessed based on the following factors:
  - Connectivity of the watercourse to the surrounding landscape
  - Watercourse type
  - Average water depth
  - Water quality
  - Water flow rate
  - Frequency and height of water level changes
  - Average channel width
  - Channel and bankside substrate (if visible)
  - Current or recent management and disturbance
  - Surrounding land use
  - Presence of suitable habitats for resting
  - Presence of anthropogenic mortality risk
  - In-channel herbaceous vegetation width, density and type
  - Bankside herbaceous vegetation density, type and species
  - Bank profile, height and substrate
  - Suitability of bankside for burrowing
  - Presence of dry areas above the water level for nesting (either in burrows or above-ground nests)
  - Percentage of channel and bank shaded by trees and shrubs
  - Evidence of high rainfall or high-water levels.
- 3.2.21 Habitat suitability referred only to the watercourse surveyed and does not reflect the suitability of the wider area.

#### 3.3 Dates of Survey and Personnel

- 3.3.1 In 2023, field surveys were undertaken between August and September. In 2024, field surveys were undertaken between April and October.
- 3.3.2 Otter surveys are not seasonally constrained, but they were undertaken at the same time as the water vole surveys to avoid unnecessary travel. The lead surveyors were experienced ecologists, competent at undertaking otter and water vole surveys.

#### 3.4 Notes and Limitations

- In some instances, access and visibility to the full survey lengths was at least partially limited by dense vegetation cover or other debris, as identified below in Table A8.13.2. In all cases, this only presented a minor constraint as there were sufficient access points/viewing points to complete the survey.
- In 2023 and 2024, high rainfall immediately prior to surveys affected surveys at 16 watercourses, as identified below in Table A8.13.2. It is possible that field signs may have been washed away prior to the survey visit. Fifteen of these watercourses were resurveyed to overcome this limitation in 2024.
- 3.4.3 Watercourse 92 (Section G) and 152 (Section C) have not been surveyed due to land access restrictions. Desk study data and data collected as part of the Project has been used to infer likely presence or absence.
- This report is based on desk study and field survey information that was available up to and including the end of March 2025.

Table A8.13.2 Watercourses with limitations

Project Section(s)	Limitation Type				
	Dense Vegetation or Other Debris	High Recent Rainfall			
A	1, 2, 8, 17, 178, 179, 182	1, 2, 3, 19, 124, 126			
В	26, 27, 28, 36, 127, 132	25, 31, 37, 128(a)			
С	41(a), 42, 45, 46, 146, 150, 151	39, 145			
D	50, 51, 52, 53, 54, 55, 58, 59, 155				
E	61, 62, 67, 68, 156, 158				
E and F	72				
F	73, 75, 78, 85, 86, 87, 88, 89, 90, 91, 160, 161				
G	93, 97, 99, 100, 102, 104	94, 95, 97, 98			
Н	105, 106, 107, 108				

### 4. Results

#### 4.1 Desk Study

4.1.1 Desk study results are detailed within the following section and shown on Figure A8.13.1: Otter and Water Vole Desk Study Results in Annex A.

#### Statutory Designated Sites

- 4.1.2 Seven SACs are situated within 10 km of the Order Limits. Only one of these, the Broads SAC (Section A), identified otter as a qualifying feature, but not a primary reason for site selection. The Broads SAC consists of naturally nutrient-rich lakes that support fenland flora and contain a rich assemblage of rare and local aquatic species. This site is located 8.93 km north-east of the Order Limits.
- 4.1.3 Nineteen biological SSSIs were situated within 2 km of the Order Limits, and none included otter or water vole within their citation, see Appendix 8.16: Designated Sites (document reference 6.8.A16) for more detail. It should be noted that desk study records identified the presence of otter and water vole within or close to most of these sites.

#### Non-Statutory Designated Sites

4.1.4 The descriptions for five non-statutory designated sites received from the desk study mention either otter or water vole, two CWS and three LWS. Details of these sites are provided in Table A8.13.3 with locations shown on Figure A8.13.1: Otter and Water Vole Desk Study Results, Annex A.

Table A8.13.3 Non-statutory designated sites with otter or water vole

Project Section	Site Name	Distance from Order Limits (km)	Site Description	Otter/water vole comment/records
В	Bramford Meadows CWS	0.58 km east	This site on the east bank of the River Gipping has grassland and scrub, and it is crossed by wet ditches and the former course of the river.	This is also key habitat for priority mammals including otter and water vole.
С	Sproughton Park CWS	Within Order Limits	The site consists of grassland, wet woodland (predominantly alder <i>Alnus</i> sp.), scrub and hedgerow habitats. The site is adjacent to the Belstead Brook.	Otter has been seen on the Belstead Brook and the woodland provides ideal lying up habitat for this species. The ditches and ponds are important for water vole.

Project Section	Site Name	Distance from Order Limits (km)	Site Description	Otter/water vole comment/records
С	Langham Water Works LWS	0.61 km west	Site supports wet woodland, eutrophic standing water, traditional orchards and old orchards, a range of flora including nationally scarce species.	Water vole has been recorded from some of the ditches.
E	Coggeshall Hall Farm LWS	Within Order Limits	A river valley site with a mosaic habitat of cricket-bat willow <i>Salix</i> sp. plantations, flower-rich grassland, and associated hedgerows.	The fauna of the site included otter within the river corridor.
F	Chelmer Valley riverside LWS	1.79 km east	A mosaic of riverside habitats including grassland, scrub, and wooded plantations, which form a corridor into Chelmsford City Centre.	stretch of the river and otter may use it to

#### Species Records

- 4.1.5 Desk study results are shown on Figure A8.13.1: Otter and Water Vole Desk Study Results in Annex A.
- 4.1.6 The desk study showed a total of 46 otter and 71 water vole records within 2 km of the Order Limits from 2012 to 2022, distributed across the Project. No records of either species were returned in Section G and H, with 93.2% of all otter and water vole records returned within Section A to C. Desk study records in relation to each Project Section are presented in Table A8.13.4.

Table A8.13.4 Desk study records for otter and water vole

<b>Project Section</b>	Number of Records		
<del>-</del>	Otter	Water Vole	
A	11	17	
В	4	26	
С	24	27	
D	4	1	
Е	2	0	
F	1	0	

Project Section	Number of Records		
-	Otter	Water Vole	
G	0	0	
Н	0	0	
Total	46	71	

- 4.1.7 A review of these records identified the presence of otter in Norfolk on the River Tas (Section A) and River Waveney (Section A and B), and in Suffolk on the Gipping (Section B), The Channel (Section B), Spring Brook (Section C), Belstead Brook (Section C), River Brett (Section C) and Stour (Section C) and in Essex on the River Colne (Section D) and River Blackwater (Section D).
- 4.1.8 Records revealed the presence of water vole in Norfolk on the River Tas (Section A) and River Waveney (Section A and B), in Suffolk River Gipping (Section B), The Channel (Section B), Belstead Brook (Section C) River Brett (Section C) and River Stour (Section C) and in Essex on the River Colne (Section D).
- 4.1.9 A search of MAGIC (Natural England, 2025) revealed no mitigation licences for otter or water vole within 2 km of the Order Limits.
- 4.1.10 The National Water Vole Database and Mapping project (McGuire, C. and Morse, A., 2020) revealed that water vole has been recorded in all three counties affected by the Project. The resolution of these records was not sufficient to make any other firm conclusions.
- 4.1.11 One record of American mink was returned within 2 km of the Order Limits in the western suburbs of Chelmsford (Section F) approximately 1 km north of the River Can (Section C) and 1.44 km east of the Order Limits.

#### 4.2 Field Survey

#### Otter

#### Otter Holts/Resting Places and Field Signs

- 4.2.1 Otter is a common and widespread species that use both wet and dry watercourses for foraging and when travelling across their range. It is therefore assumed that otter could utilise all watercourses within the Order Limits. The focus of the survey was to establish where potential holts were located by searching for field signs.
- 4.2.2 Of the 142 watercourses surveyed for evidence of otter, 27 had confirmed otter presence due to sightings or the presence of confirmed otter holts, spraints or footprints.
- 4.2.3 Four watercourses were assigned potential otter presence due to indicative signs such as potential otter feeding remains, footprints, slides, couches and nearby sightings.

- 4.2.4 These records are shown in Table A8.13.5 below and shown on Figure A8.13.2: Otter Field Survey Results in Annex A. Full details of these results can be found in Table A8.13.9 in Annex B.
- 4.2.5 A live sighting of a family of otter with kits (young otter) was recorded going into and out of a tree in a small woodland copse surrounding a small pond to the north of Fuller Street (Section E). The nearest major watercourse is the River Ter approximately 1.3 km to the south. The only identified flowing watercourse providing potential connectivity between the River Ter and the potential holt's location is watercourse 72 that crosses the boundary between Section E and F. This feature could be a potential resting site or a potential natal holt, but this cannot be determined at this stage. This feature is shown as 'O9' on Figure A8.13.2: Otter Field Survey Results in Annex A.
- 4.2.6 A confirmed resting site / holt (O11) with multiple confirmed spraints inside its entrance cavity and additional tunnels leading deeper was recorded on the banks of A second confirmed otter resting site / holt (O10), recorded within the cavity.
- 4.2.7 A further eight features with suitability to be used as a resting site by otter have been identified. Not enough evidence of usage has been recorded to confirm their status. These features were recorded at watercourse 16 (Section A); 32 (Section B); 139, 140, 145, 331 (Section C); 183 (Section D); 62 (Section E) and 78 (Section F). These potential resting places are included in Table A8.13.5 below, the locations of the features labelled 'O1' to 'O11' in and shown on Figure A8.13.2: Otter Field Survey Results in Annex A. [Note O6 on watercourse 331 is not listed as it is no longer affected by the Project.]
- 4.2.8 Full details of the 11 holts / resting sites are presented in Table A8.13.10 in Annex B.
- 4.2.9 It should be noted that the use of natal holts and resting places is subject to change across the seasons and the years and so camera trapping would be conducted to confirm the status of any potential natal holts or resting sites before works take place close to these features. Each feature that is camera trapped with be assigned as either a natal holt, a non-natal holt, a lay-up site, a couch or scoped out if no use is evidenced.

Table A8.13.5 Otter field signs

Project Section(s)	Watercourse ID	Name of Watercourse (if applicable)	Otter Field Signs
Α		Tributary of River Tas 2	No signs but landowner had a recent photograph of an otter in the stream.
A		N/A	Footprints
A		River Tas	Spraint
A		Frenze Beck	Spraint, potential resting site (O1)
A		Tributary of River Waveney 1	Spraint

Project Section(s)	Watercourse ID	Name of Watercourse (if applicable)	Otter Field Signs
А		River Waveney	Spraint
A and B		River Waveney	Otter signs confirmed at nearby connected watercourse 124 and 126.
В		Wattisham Watercourse	Spraint, potential resting site (O2)
С		Belstead Brook	Spraint, potential resting site (O3)
С		Spring Brook	Footprint, potential resting site (O4)
С		Tributary of River Brett	Potential resting site (O5)
С		River Stour	Spraint
С		River Stour	No signs at this location but this is a continuation of the River Stour, just downstream from 41(a) which has confirmed otter presence.
С		Black Brook	Spraints
С		N/A	Spraint, feeding remains
D		N/A	Spraint
D		N/A	Spraint, potential otter path
D		Tributary of River Colne	Spraint
D		River Colne	Spraint, footprints, potential resting site (O7)
D		Roman River	Spraint
E		River Blackwater	Spraint, slide, grooming area, potential resting site (O8)
E		Tributary of River Blackwater	Potential otter feeding remains
Е		River Brain	Potential slide
E		River Brain	Spraint
Е		N/A	Nearest watercourse to potential natal holt or resting site with kits (O9)
F		River Can	Spraint, confirmed holt / resting site (O10)
F		Roxwell Brook	Spraint, footprint
F		Tributary of Roxwell Brook	Spraints

Project Section(s)	Watercourse ID	Name of Watercourse (if applicable)	Otter Field Signs
G		Stock Brook	Sighting, spraint, footprint
G		Off Roxwell Brook	Spraint
G		Havering's Grove Brook	Spraints, confirmed resting site / holt (O11)

- 4.2.10 Full details of these results can be found in Annex B and are shown on Figure A8.13.2: Otter Field Survey Results in Annex A.
- 4.2.11 Further otter surveys are to be undertaken in 2025 and it is reasonable to assume a similar number of confirmed or potential otter field signs will be identified across the remaining watercourses, given the type and location of the watercourses present. On this basis a precautionary reasonable worst-case scenario has been applied for the purpose of the ES (Volume 6 of the DCO application), with the same percentage of positive otter records applied to the remaining watercourses, as was found within the surveys undertaken across the rest of the Project (22%). Therefore, it is considered reasonable to assume that 14 additional watercourses will have confirmed or potential evidence of otter identified during the 2025 surveys. This is assumed within the baseline for the assessment within Chapter 8: Ecology and Biodiversity (document reference 6.8). However there would be no change to the overall value of medium value/County importance assigned to otter.
- 4.2.12 The results of the otter surveys undertaken post-March 2025, will be included in a further environmental information report, as detailed in Chapter 8: Ecology and Biodiversity (document reference 6.8).

#### Water Vole

#### **Habitat Suitability Assessment**

- 4.2.13 Table A8.13.6 summarises the results of the habitat suitability assessment with more detail provided in Table A8.13.9 in Annex B.
- 4.2.14 Of the 142 watercourses surveyed, 89 were assessed to be suitable for water vole (assessed as poor, sub-optimal and optimal), 53 were assessed to be unsuitable. Water vole was considered absent from the watercourses that were assessed to be unsuitable, and no further surveys for water vole were undertaken on these watercourses.

Table A8.13.6 Habitat suitability assessment for water vole

Project	Habitat Suitability				
Section(s)	Optimal	Sub-optimal	Poor	Unsuitable	Total
A	2	12	5	12	31
A and B	1	0	0	0	1
В	6	5	8	4	23

Project	Habitat Suitability				
Section(s)	Optimal	Sub-optimal	Poor	Unsuitable	Total
С	4	6	4	6	20
D	4	3	4	7	18
E	2	3	0	6	11
E and F	0	1	0	0	1
F	4	3	4	10	21
G	1	4	1	4	10
G and H	0	1	0	0	1
Н	0	1	0	4	5
Total	24	39	26	53	142

#### **Water Vole Burrows and Field Signs**

- 4.2.15 The results of the water vole surveys are summarised in Table A8.13.7. Of the 89 watercourses assessed to be suitable for water vole, 21 had confirmed water vole presence due to sightings or the presence of confirmed water vole latrines.
- 4.2.16 Fifteen watercourses were assigned potential water vole presence due to indicative signs such as potential water vole feeding stations, burrows and footprints.
- 4.2.17 These records are shown in Table A8.13.7 below and shown on Figure A8.13.3: Water Vole Field Survey Results in Annex A.
- 4.2.18 A full breakdown of the survey results and other incidental records contributing to the results can be found in Table A8.13.9 in Annex B.

Table A8.13.7 Water vole field signs and presence

Project Section	Watercourse ID	Name of Watercourse (if applicable)	Water Vole Field Signs	Water Vole Presence
A	182	Tributary of River Tas 2	Latrine	Confirmed presence
A	201	N/A	Latrines, burrows, feeding station	Confirmed presence
A	1	N/A	Latrines, burrows, footprints	Confirmed presence
A	9	N/A	Latrine, burrows	Confirmed presence
A	10	N/A	Latrine, burrow, feeding station	Confirmed presence
A	16	Frenze Beck	Potential burrow	Potential presence

Project Section	Watercourse ID	Name of Watercourse (if applicable)	Water Vole Field Signs	Water Vole Presence
A	124	Tributary of River Waveney 1	Latrine	Confirmed presence
A	126	River Waveney	Latrine, potential feeding stations	Confirmed presence
A and B	125	River Waveney	Potential burrow	Potential presence
В	128	Tributary of River Waveney 2	Latrine	Confirmed presence
В	25	Tributary of River Dove	Latrine	Confirmed presence
В	30	River Gipping	Latrine, burrow, feeding station	Confirmed presence
В	133	N/A	Latrine, burrows, feeding station	Confirmed presence
В	31	N/A	Latrine, burrow, feeding station	Confirmed presence
В	134	Tributary of River Gipping 1	Latrine, burrows, feeding station	Confirmed presence
В	135	N/A	Latrine, burrows, feeding station	Confirmed presence
В	32	Wattisham Watercourse	Latrines, burrows, feeding station	Confirmed presence
В	37	N/A	Latrine	Confirmed presence
С	41(a)	River Stour	Sighting, latrine, feeding station	Confirmed presence
С	41(b)	N/A	Potential feeding stations	Potential presence
С	42	River Stour	Latrine, feeding station	Confirmed presence
С	139	Belstead Brook	Latrines, burrows	Confirmed presence
С	150	N/A	Potential feeding station	Potential presence
D	52	N/A	Potential burrow, footprints	Potential presence
D	54	N/A	Potential burrows	Potential presence

Project Section	Watercourse ID	Name of Watercourse (if applicable)	Water Vole Field Signs	Water Vole Presence
D	183	River Colne	Latrine, burrow	Confirmed presence
D	60	Roman River	Potential footprints	Potential presence
E	62	River Blackwater	Potential burrows	Potential presence
E	71	Tributary of River Ter	Potential feeding stations	Potential presence
E and F	72	N/A	Potential burrows	Potential presence
F	73	River Ter	Potential footprints, feeding stations	Potential presence
F	79	Roxwell Brook	Latrine, feeding station	Confirmed presence
F	81	Tributary of Roxwell Brook	Potential footprints	Potential presence
G	95	River Wid	Potential feeding station	Potential presence
G	100	Havering's Grove Brook	Potential feeding stations	Potential presence
Н	105	N/A	Potential footprints	Potential presence

- 4.2.19 Further water vole surveys are to be undertaken in 2025. For the purpose of the ES (Volume 6 of the DCO application) a precautionary reasonable worst-case scenario has been applied to the likely survey findings. It has been assumed that all 72 watercourses subject to survey in 2025 would have confirmed water vole field signs identified during the 2025 surveys. However, there would be no change to the overall value of medium value/County importance assigned to water vole within the ES (Volume 6 of the DCO application).
- 4.2.20 The results of the water vole surveys undertaken post-March 2025, will be included in a further environmental information report, as detailed in Chapter 8: Ecology and Biodiversity (document reference 6.8).

#### American Mink

4.2.21 Sightings, scat, footprints or burrows of American mink were recorded in Section A (watercourse 120), Section B (watercourse 137), Section F (watercourse 79 and 181), and Section G (watercourse 97, 98, 104 and 181). Note, although watercourse 331 Tributary of Salary Brook 1 in Section C is no longer affected by the Project the record has been retained to provide context as this species could spread into linked watercourses within the Order Limits.

## 5. Conclusion

- 5.1.1 Desk study records indicated water vole and otter presence in Norfolk, Suffolk and Essex, all records with precise locations were concentrated in Section A, B, C and D, with Section C having the highest concentration of both water vole and otter records.
- 5.1.2 Otter is a common and widespread species present throughout East Anglia, and it is assumed that they would use both wet and dry watercourses when travelling across their range. Otter presence was confirmed in 27 watercourses due to sightings or the presence of confirmed otter holts, spraints or footprints. Four watercourses were assigned potential otter presence due to indicative signs such as potential otter feeding remains, footprints, slides, couches and nearby sightings.

5.1.3

- 5.1.4 A summary of these results by Section is provided below in Table A8.13.8 Watercourses with confirmed otter presence were more evenly distributed through all Sections than the spread of desk study records. All Sections except for H had at least one watercourse with confirmed otter presence.
- 5.1.5 Water vole presence was confirmed in 21 watercourses due to sightings or the presence of confirmed water vole latrines. 15 watercourses were assigned potential water vole presence due to indicative signs such as potential water vole feeding stations, burrows and footprints. A summary of these results by Section is provided below in Table A8.13.8. As with the desk study, most of the watercourses with confirmed water vole presence were in Section A, B, C and D, with Section B having the highest total number. Watercourses with potential water vole presence were evenly spread across all Sections.
- 5.1.6 The desk study revealed American mink in Section C with field surveys confirming their presence in Section A, B, C, F and G. Mink travel widely and have the potential to be present in all Project Sections. Mink eradication programmes have resulted in water vole recolonising areas and so it is possible that where such programmes are in place water vole could colonise suitable watercourses in future years where presence was not confirmed in 2023 and 2024.
- 5.1.7 Otter and water vole are highly mobile species. The usage of otter holts / resting sites varies across the seasons and across the years and so pre-construction surveys to include the use of cameras for monitoring would be required to confirm the status and location of any holts / resting sites. Water vole populations also vary across the seasons with significant population fluctuations particularly in response to the presence or absence of American mink. Pre-construction surveys would therefore be required to confirm the presence/absence of water vole and identify the locations of water vole burrows.

Table A8.13.8 Summary of watercourses with otter and water vole presence by Project Section

Project	Watercourse ID				
Section (s)	Otter Confirmed Presence	Potential Otter Field Signs	Water Vole Confirmed Presence	Water Vole Potential Presence	
A	16, 118, 120, 124, 126, 182	N/A	1, 9, 10, 124, 126, 182, 201	16	
A and B	125	N/A	N/A	125	
В	32	N/A	25, 30, 31, 32, 37, 128, 133, 134, 135	N/A	
С	41(a), 42, 45, 139, 140, 151	145	41(a), 42, 139	41(b), 150	
D	54, 55, 60, 155, 183	N/A	183	52, 54, 60	
Е	62, 157	67, 68, 385	N/A	62, 71	
E and F	N/A	N/A	N/A	72	
F	78, 79, 81	N/A	79	73, 81	
G	94, 97, 98	N/A	N/A	95, 100	
Н	N/A	N/A	N/A	105	
Total	27	4	21	15	

# **Abbreviations**

Abbreviation	Full Reference
CIEEM	Chartered Institute of Ecology and Environmental Management
CWS	County Wildlife Site
DCO	Development Consent Order
DEFRA	Department for the Environment, Food and Rural Affairs
EFC	Essex Field Club
EIA	Environmental Impact Assessment
ES	Environmental Statement
JNCC	Joint Nature Conservation committee
LWS	Local Wildlife Site
MAGIC	Multi Agency Geographic Information for the Countryside
NBIS	Norfolk Biodiversity Information Service
NERC	Natural Environmental and Rural Communities
SAC	Special Area of Conservation
SBIS	Suffolk Biodiversity Information Service
SPA	Special Protection Areas
SSSI	Sites of Special Scientific Interest
S41	Section 41
WCA	Wildlife and Countryside Act 1981

# **Glossary**

Term	Description
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.
County Wildlife Site	Non-statutory designated areas of land important for their wildlife and nature conservation value (Norfolk and Suffolk).
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Haul Road	Another term used for the temporary access route, which is a temporary route built to carry construction vehicles within the Order Limits.
Local Wildlife Site	Non-statutory designated areas of land important for their wildlife and nature conservation value (Essex).
Non-statutory Designated Site	Areas which are recognised for their ecological importance but do not have the same level of legal protection as statutory designated sites. These are typically identified at a local or regional level through non-legally binding agreements, policies, or planning frameworks.
Order Limits	The maximum extent of land within which the authorised development may take place.
Otter Couch	Couches are above-ground daytime resting places for otters. Typically, they take the form of an uncovered nest-like structure. Sometimes they are less conspicuous as this and may simply be an area of flattened vegetation which does not appear to offer any protection from disturbance.
Otter Holt	An underground or enclosed den or burrow used by otters for shelter, resting or sleeping, usually overnight. These can be burrows or cavities in rocks, trees or man-made structures.
Otter Natal Holt	An underground or enclosed den or burrow used by otters for giving birth to and raising their young.
Otter Lay-up	Lay-ups are regular resting places where otters have short rest periods during the daytime. They may be within vegetation patches, under rock ledges or other sheltered areas. They tend to be inconspicuous and may only be marked by the presence of spraints or feeding remains.
Otter Resting Site	Any location where otters pause to rest, groom themselves, or take shelter during the day or night. This includes non-natal holts, couches and lay-ups.
Otter Spraint	The term used to describe the droppings or faeces of an otter, they are distinctive and often used by otters to mark their territory.

Term	Description
Priority species	Species identified as of principal importance in England, in accordance with requirements of the Natural Environment and Rural Communities Act 2006. These are based on the UK Biodiversity Action Plan Priority Species.
Sites of Special Scientific Interest	SSSIs are protected by law under the Wildlife and Countryside Act 1981. They are important because they support rare or endangered fauna and flora, and they represent the United Kingdom's best wildlife and geological sites.
Special Areas of Conservation	Protected areas designated under the European Union's Habitats Directive (Council Directive 92/43/EEC) to conserve and protect rare, vulnerable, or endangered habitats and species of plants and animals that are considered of European importance.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
Statutory Designated Site	An area that has been legally designated and protected for its importance to biodiversity.
Underground Cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two cable sealing end compounds.
Water vole feeding station	Locations where water voles eat their food, often containing feeding remains.
Water vole latrines	The term used to describe the droppings or faeces of a water vole.
Water vole runs	Well-worn paths created by water voles as they move through their habitat.
Water vole stashes	Collections of food that water voles gather and store, typically for later consumption.

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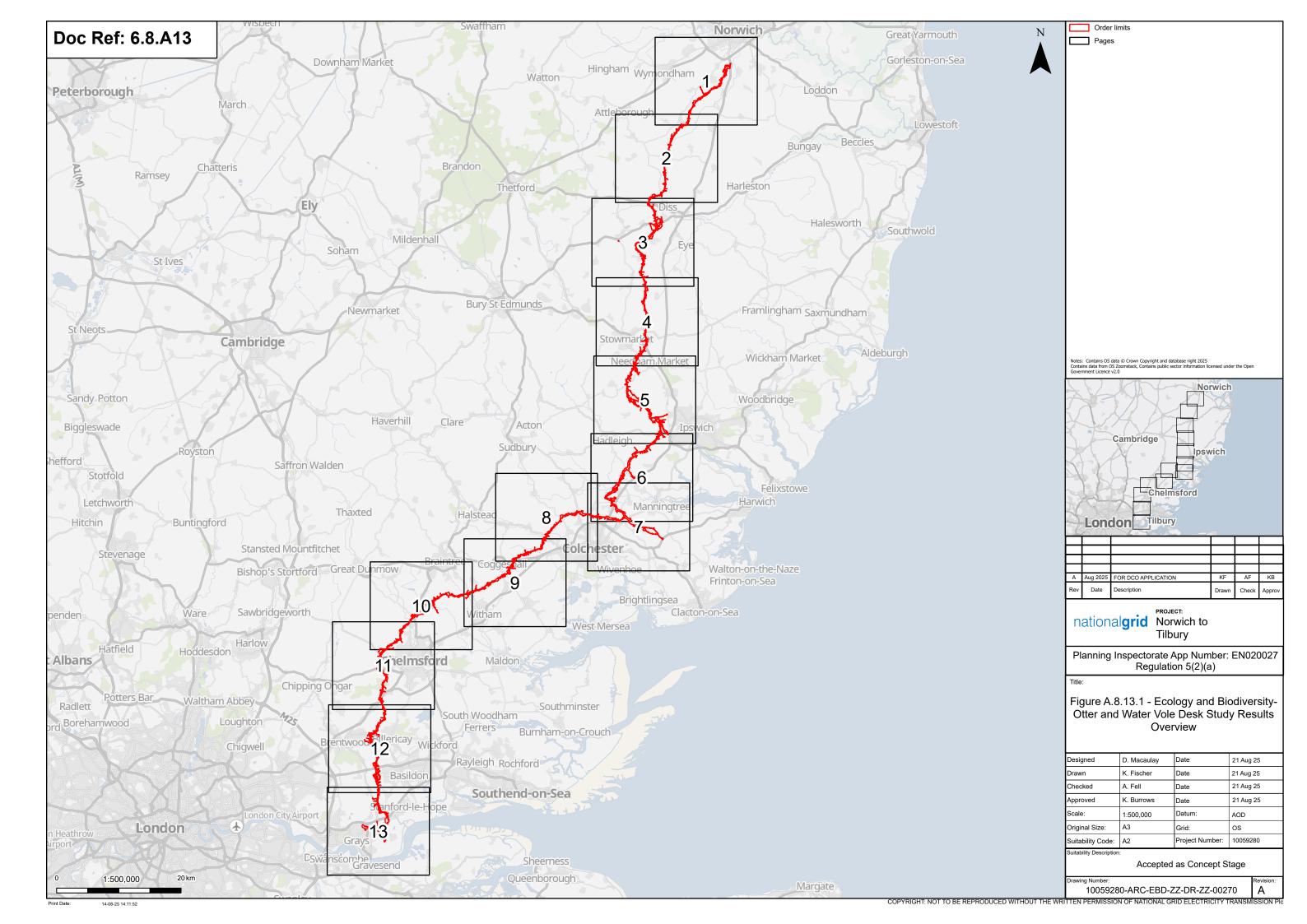
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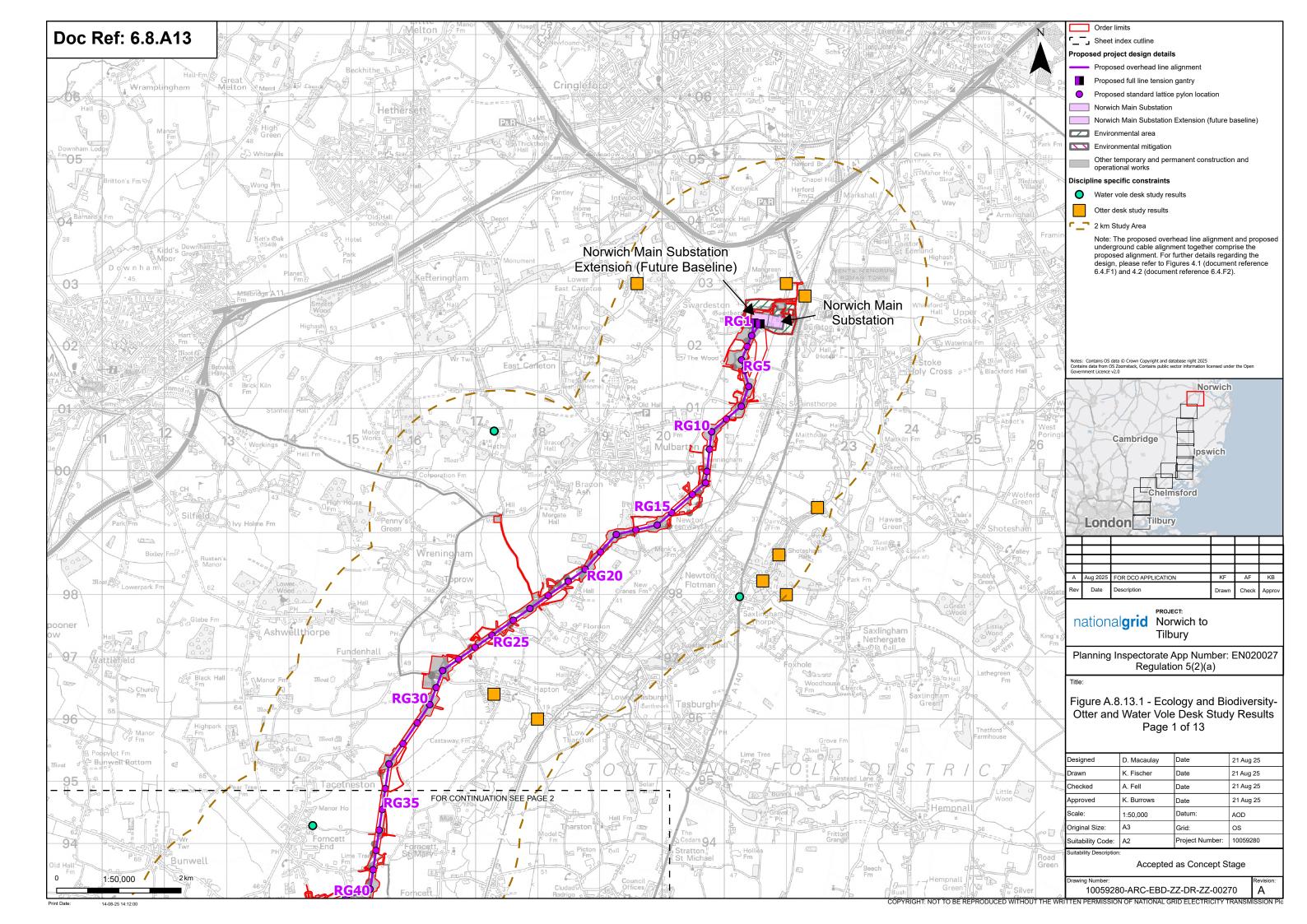
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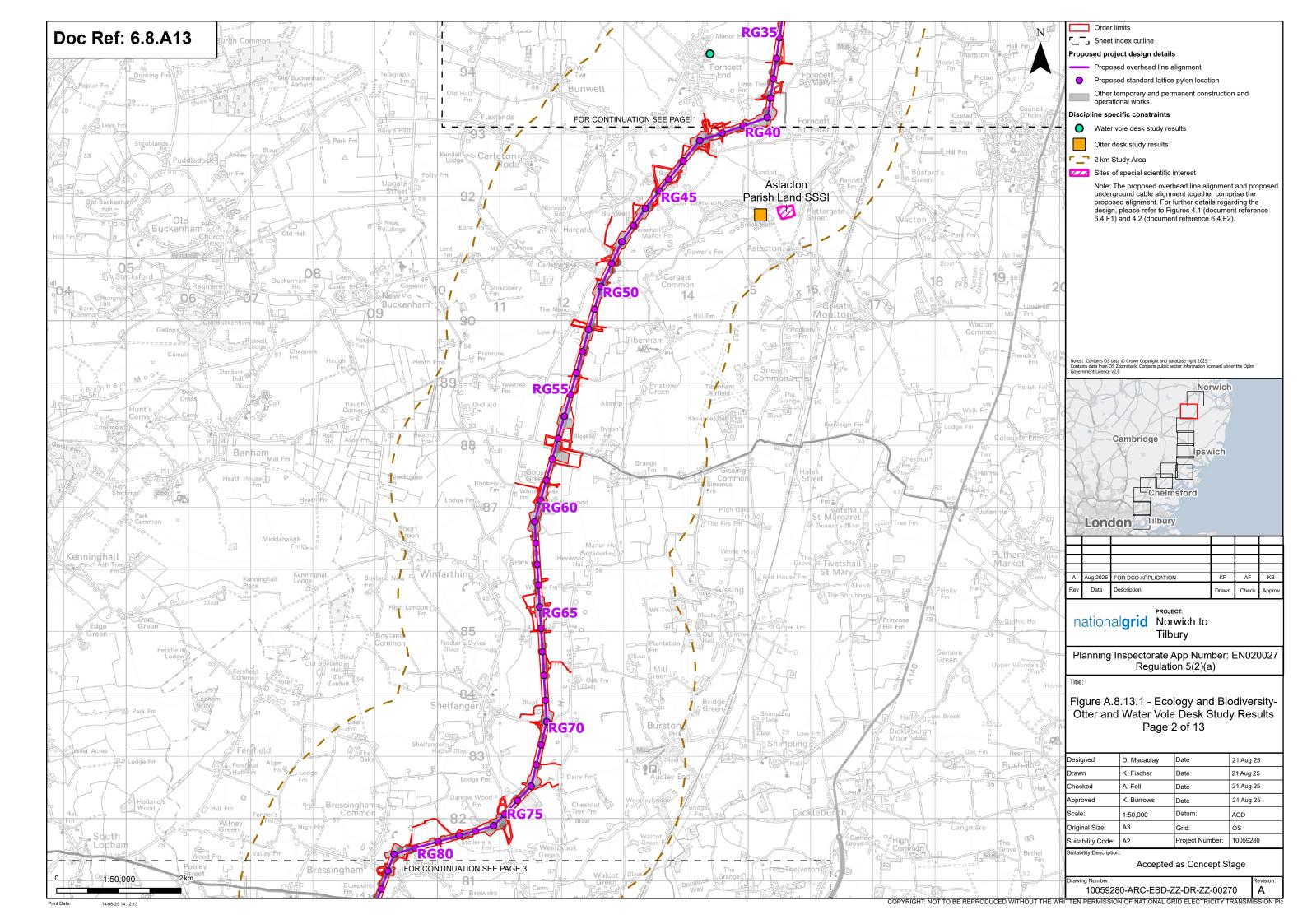
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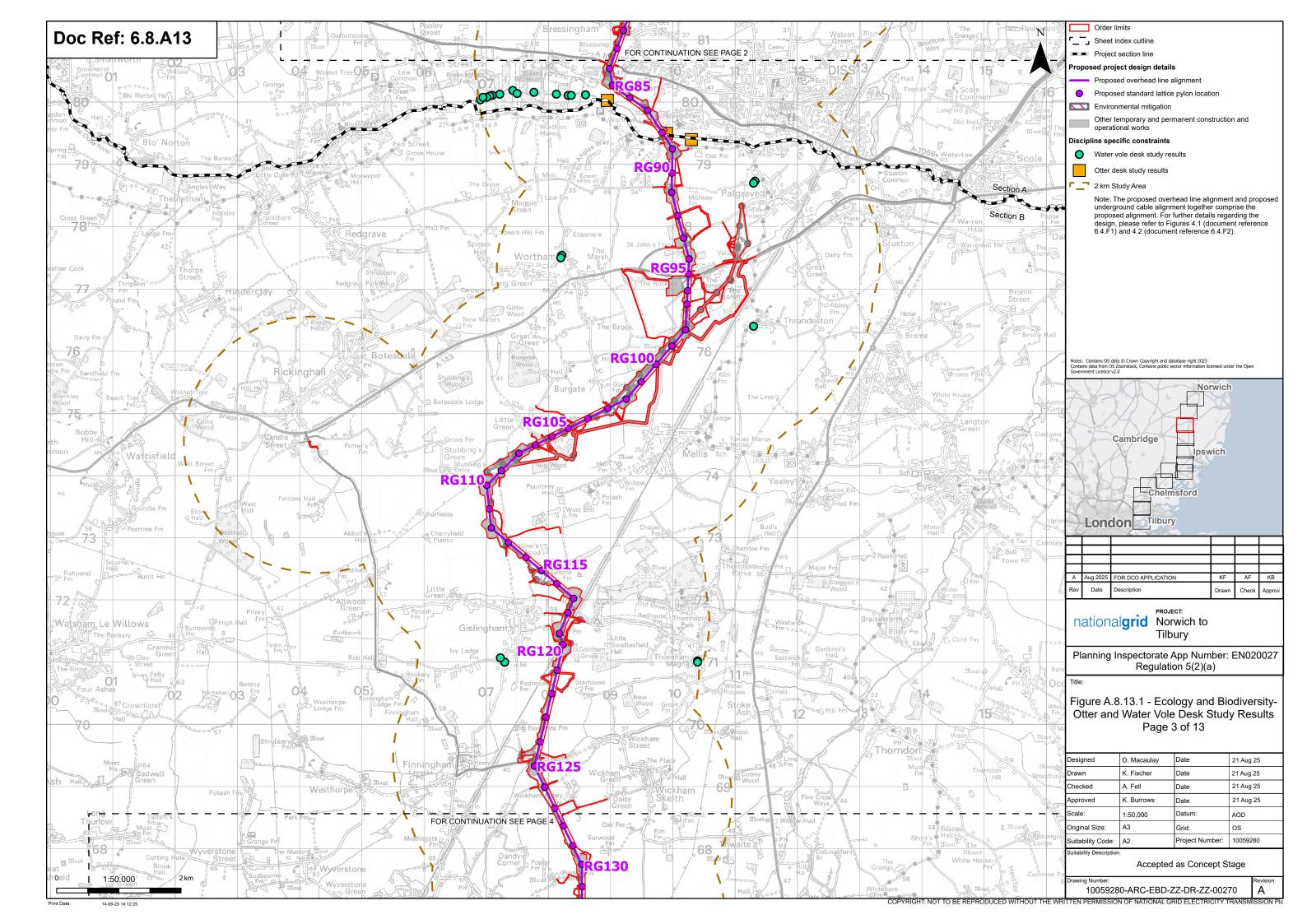
# Annex A. Figures

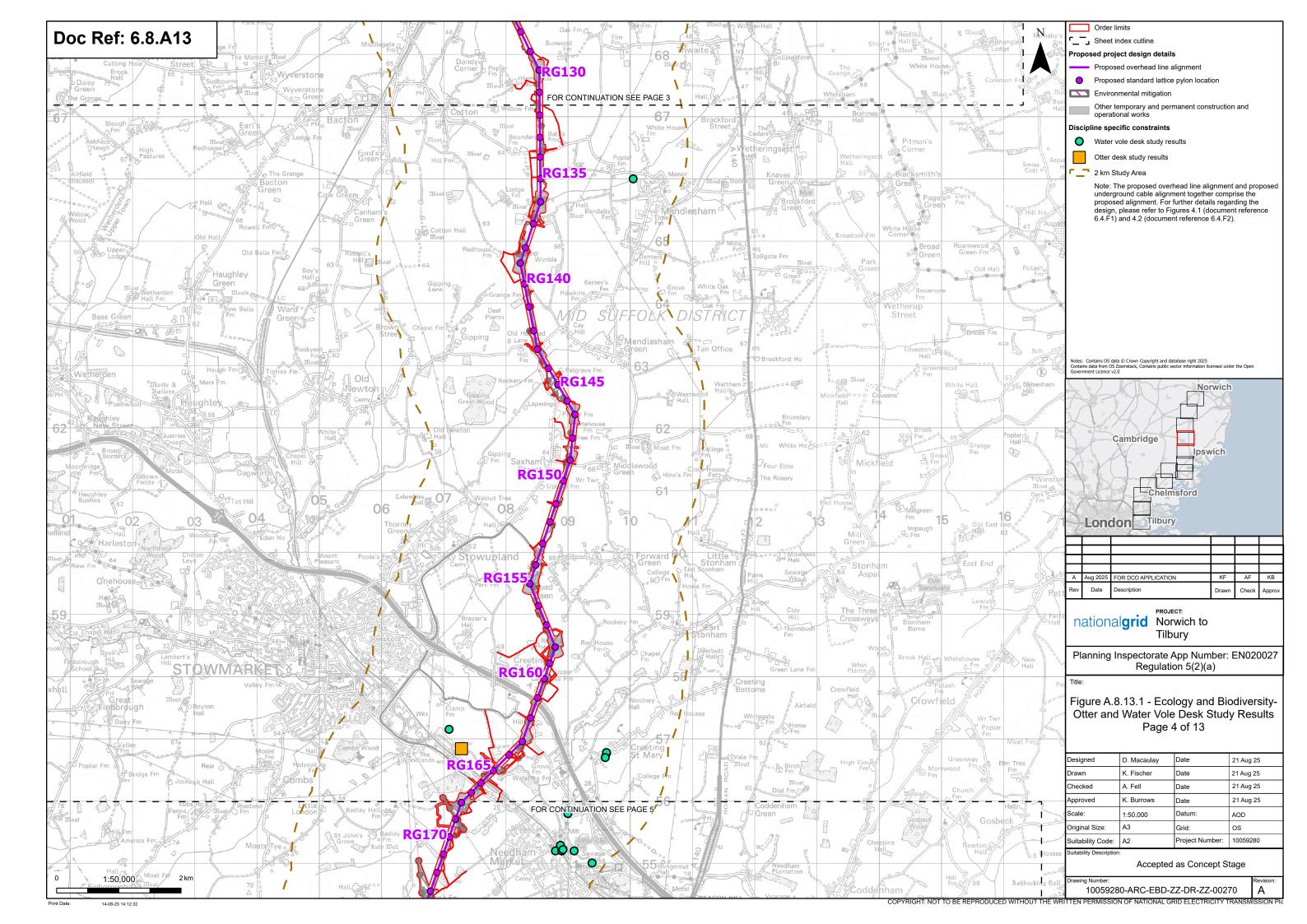


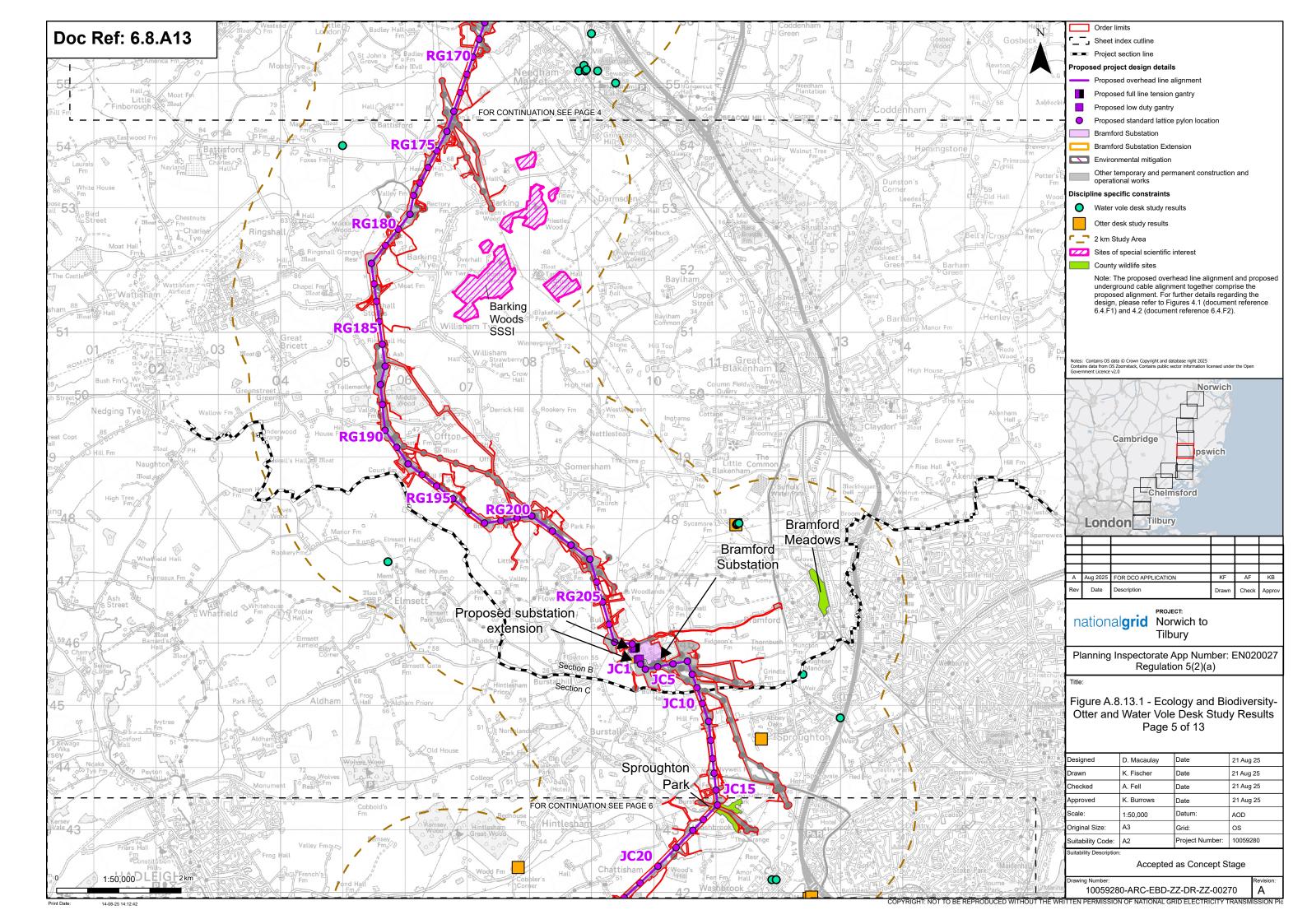


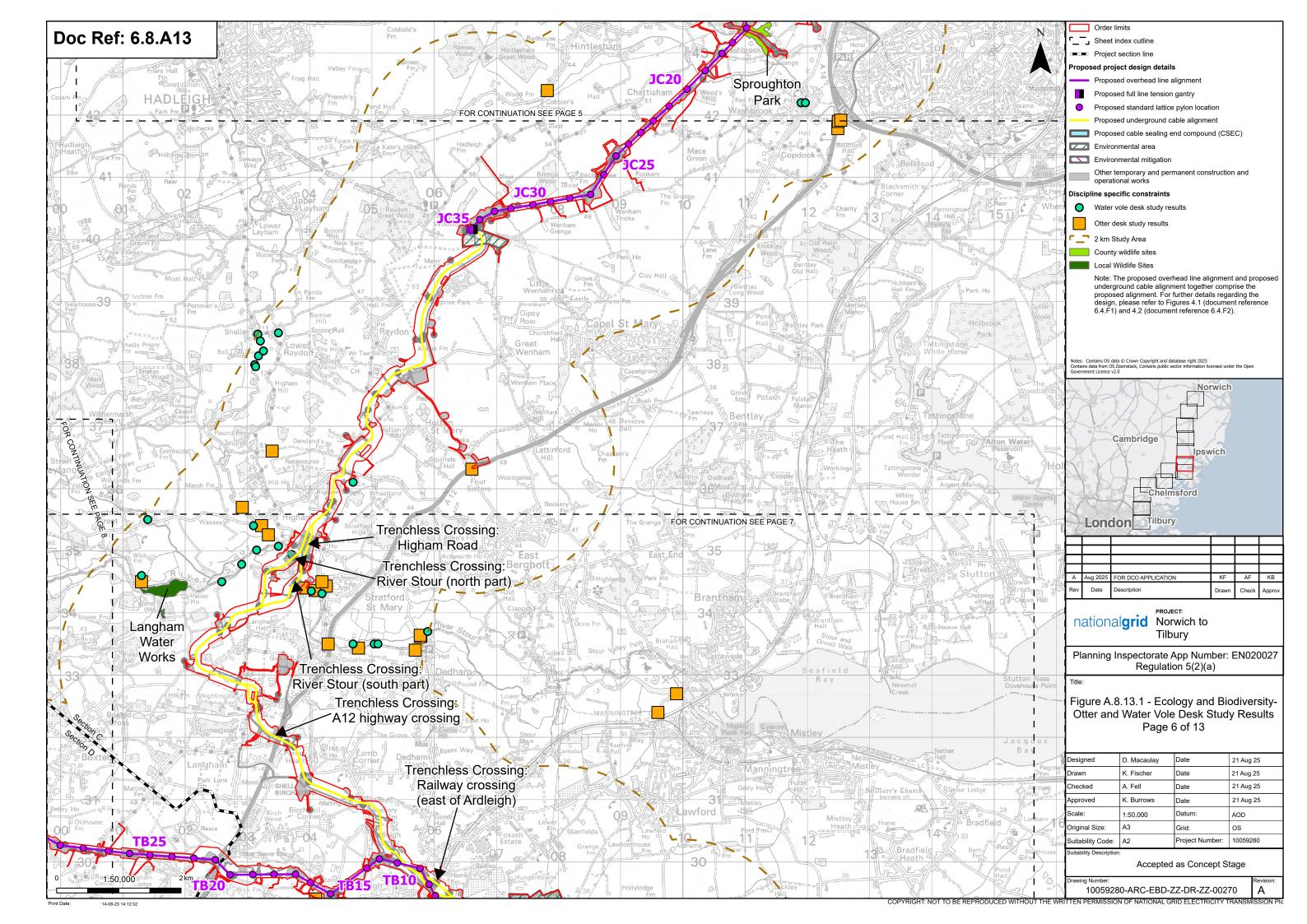


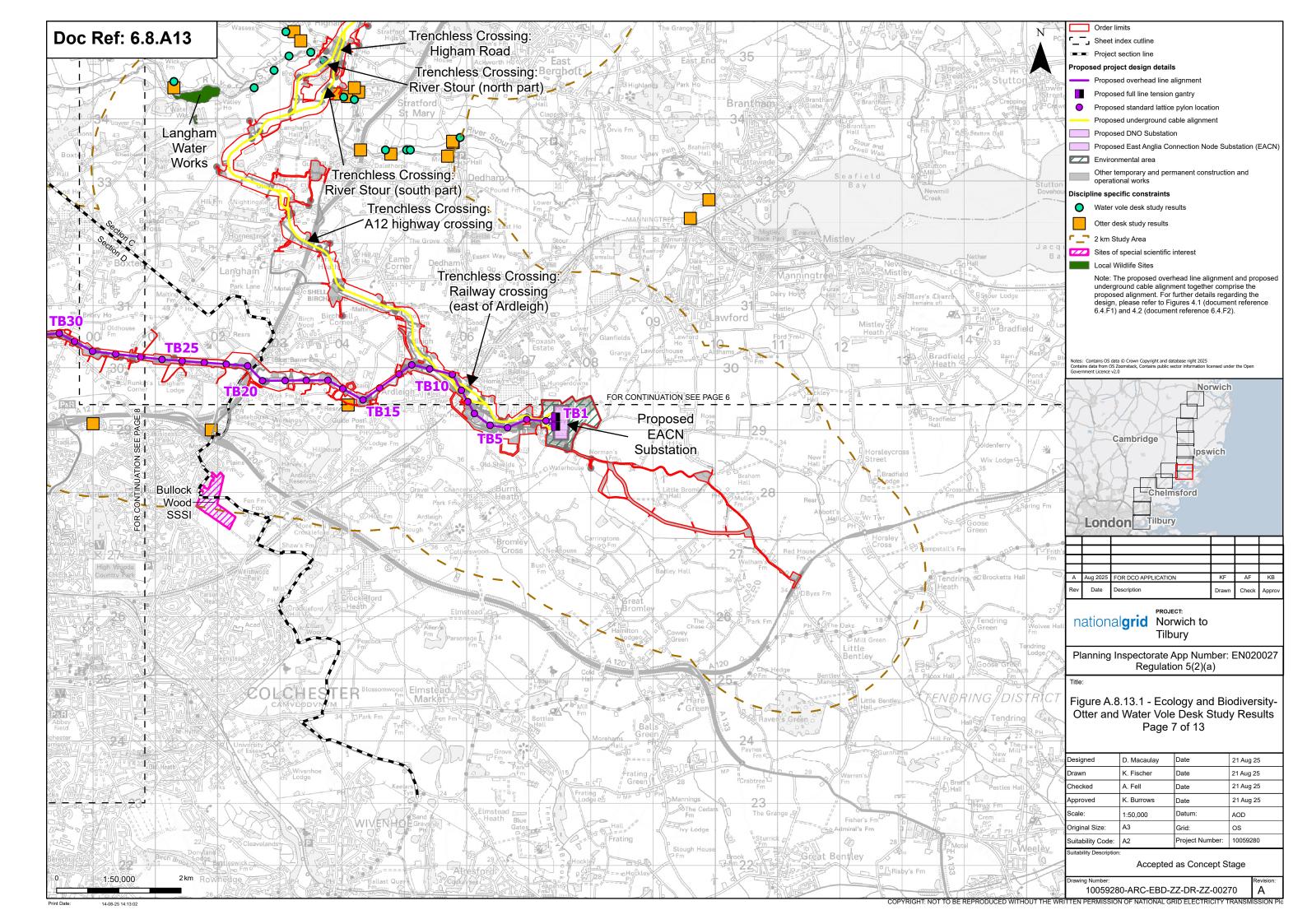


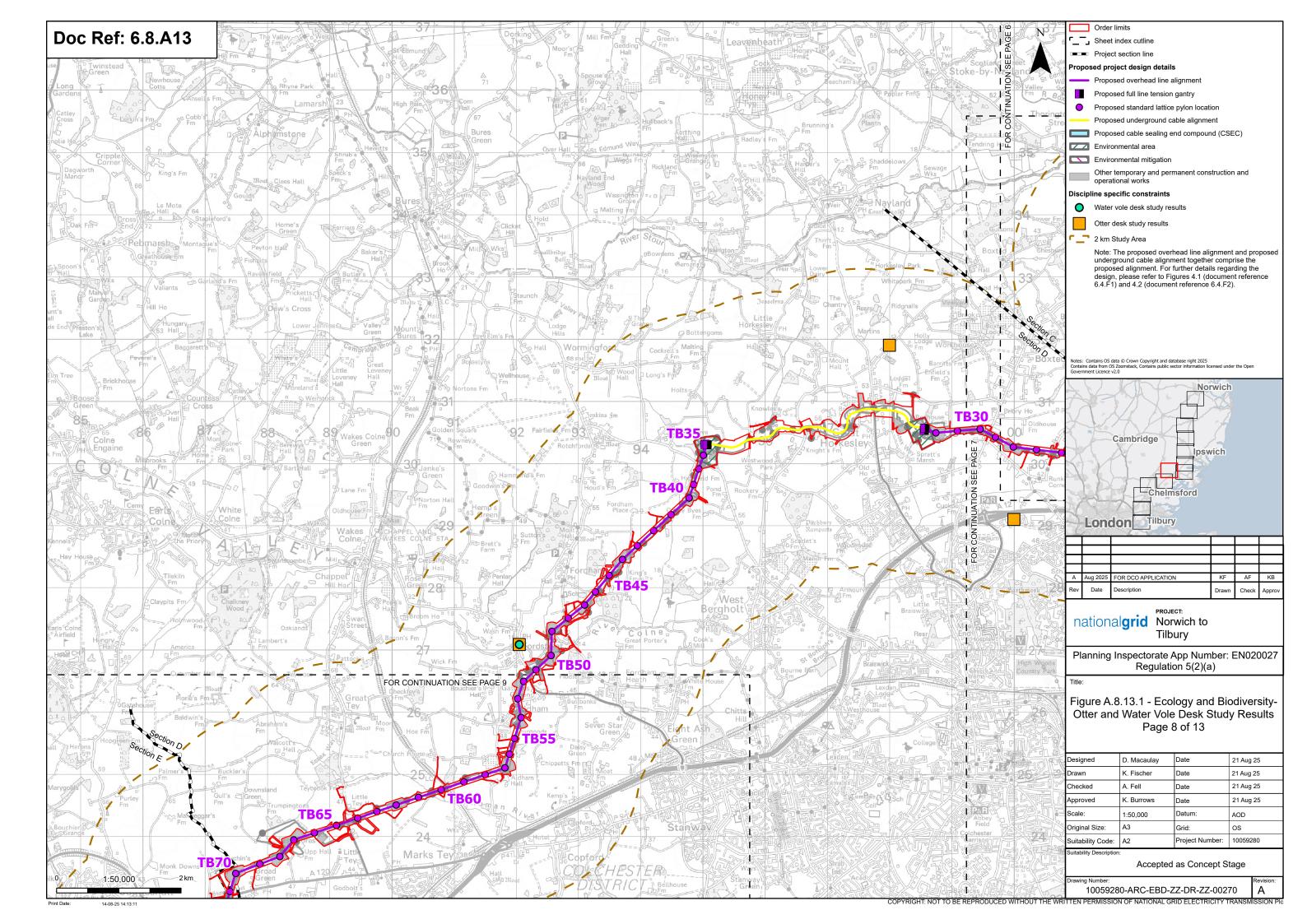


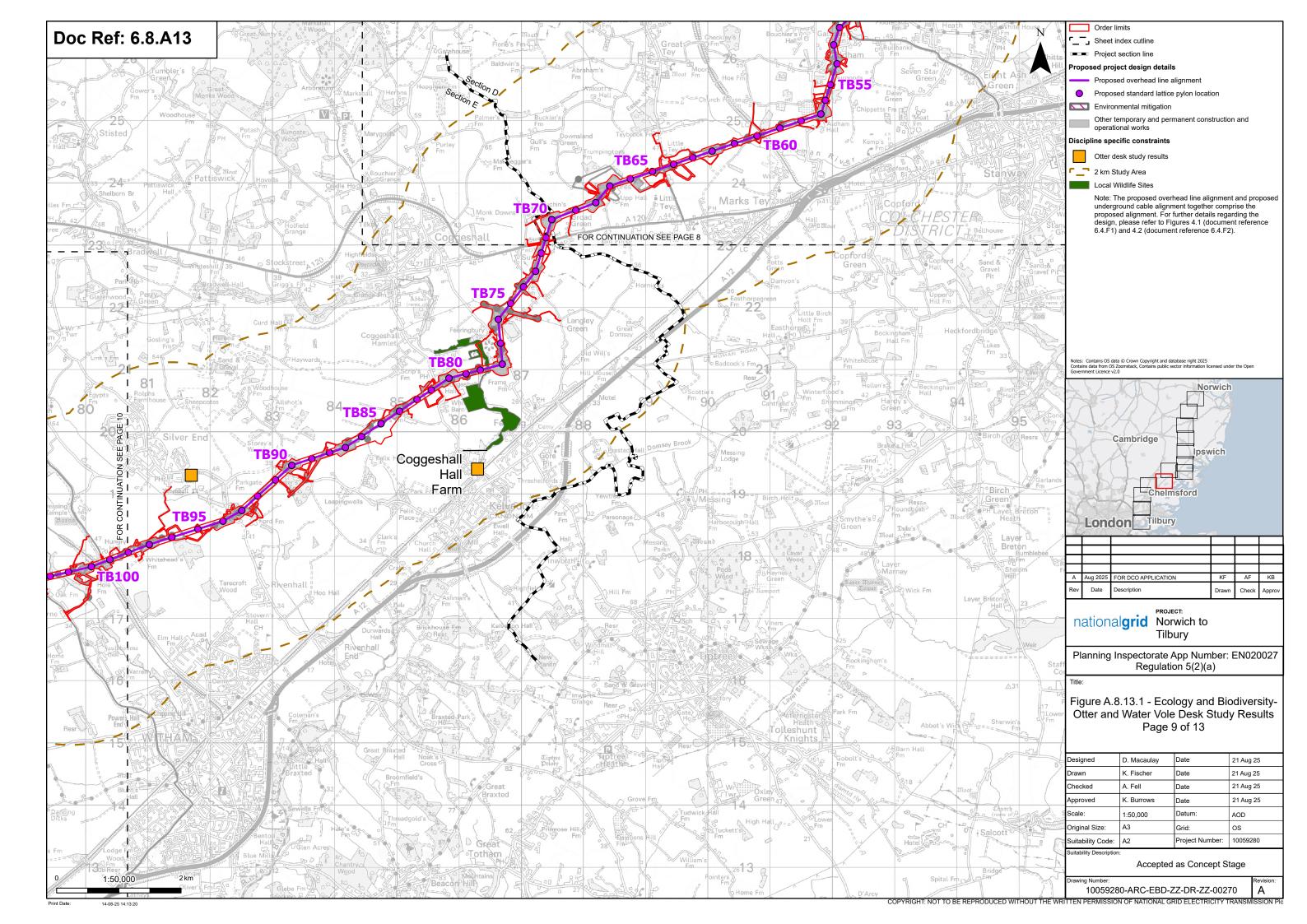


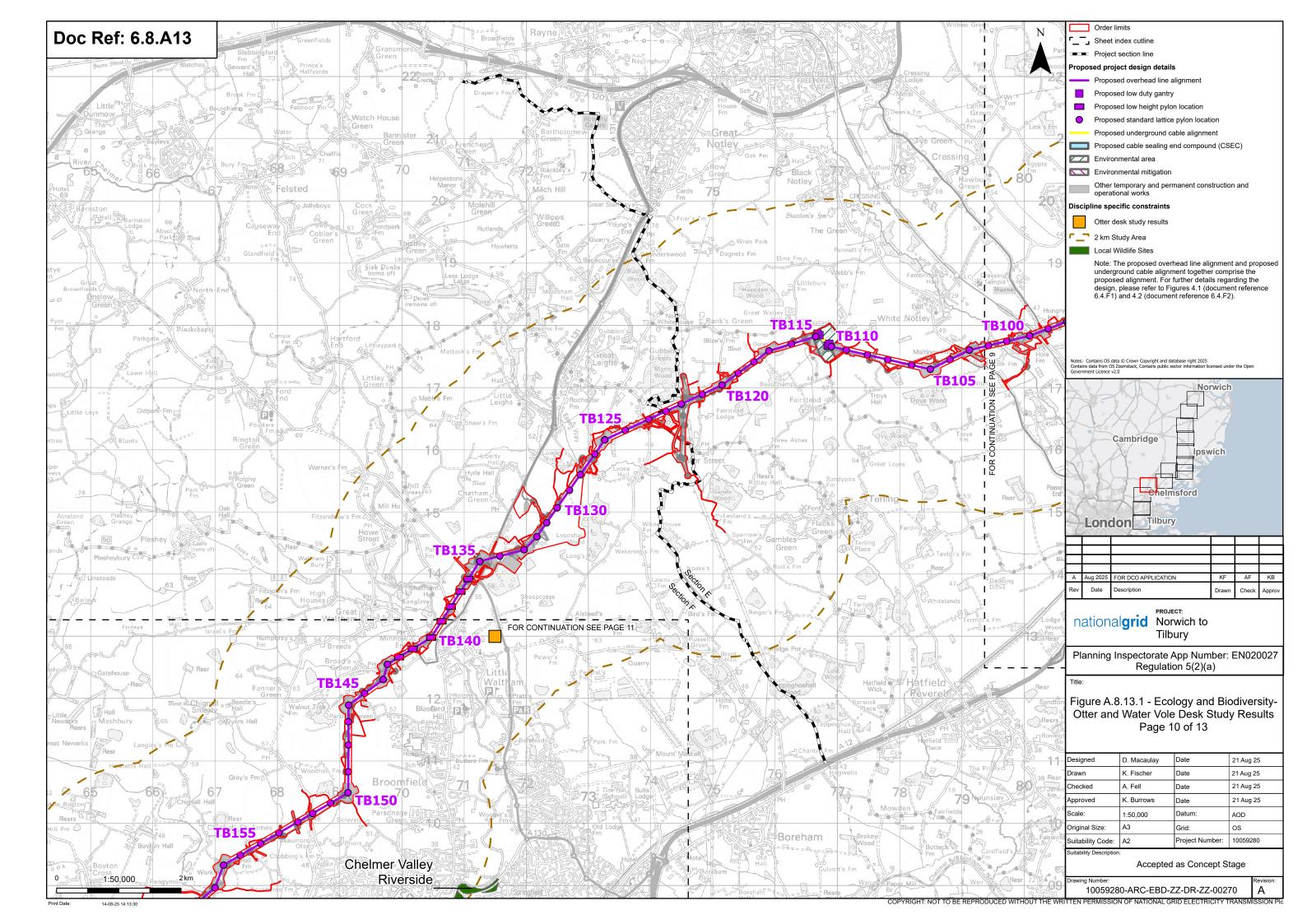


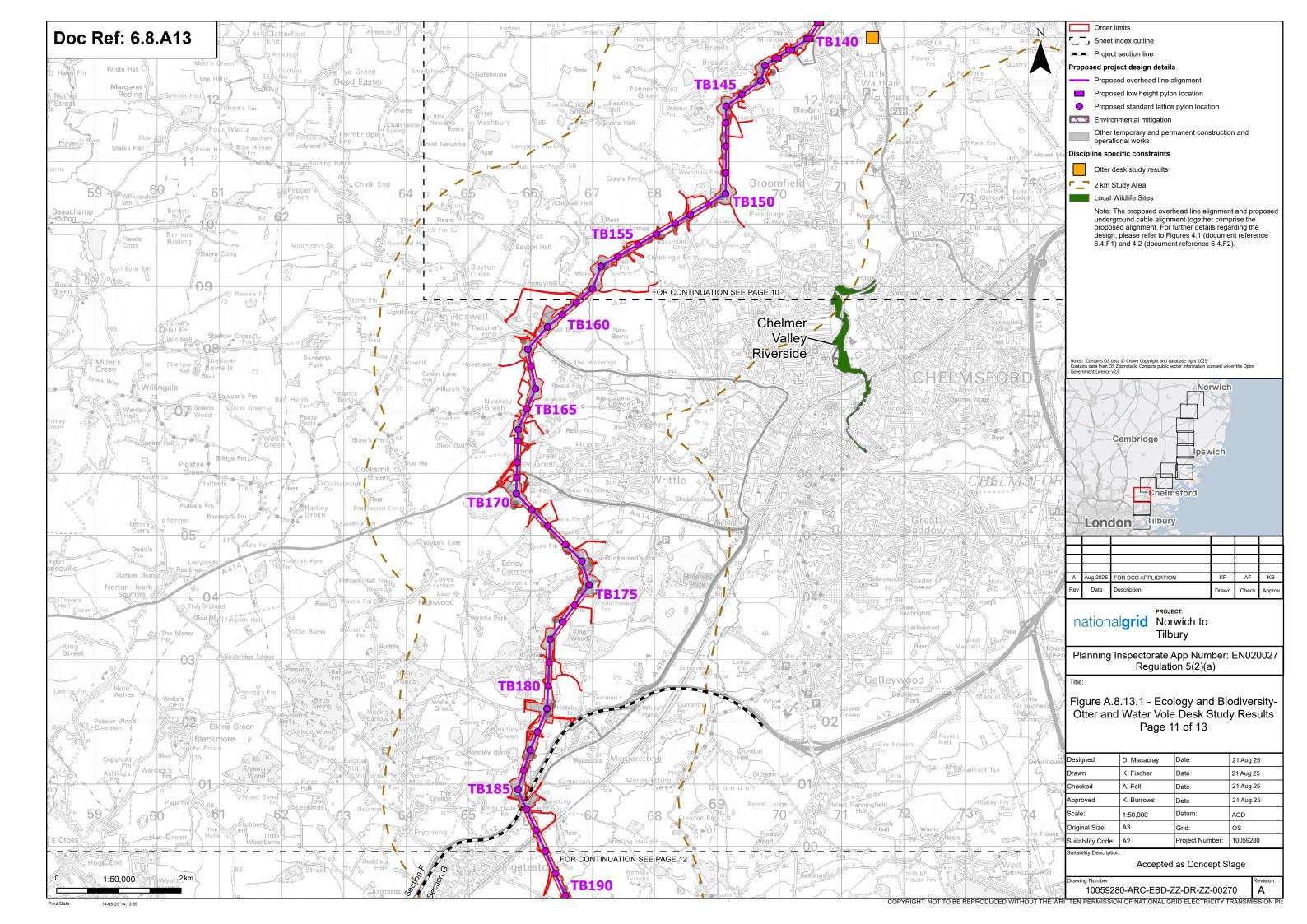


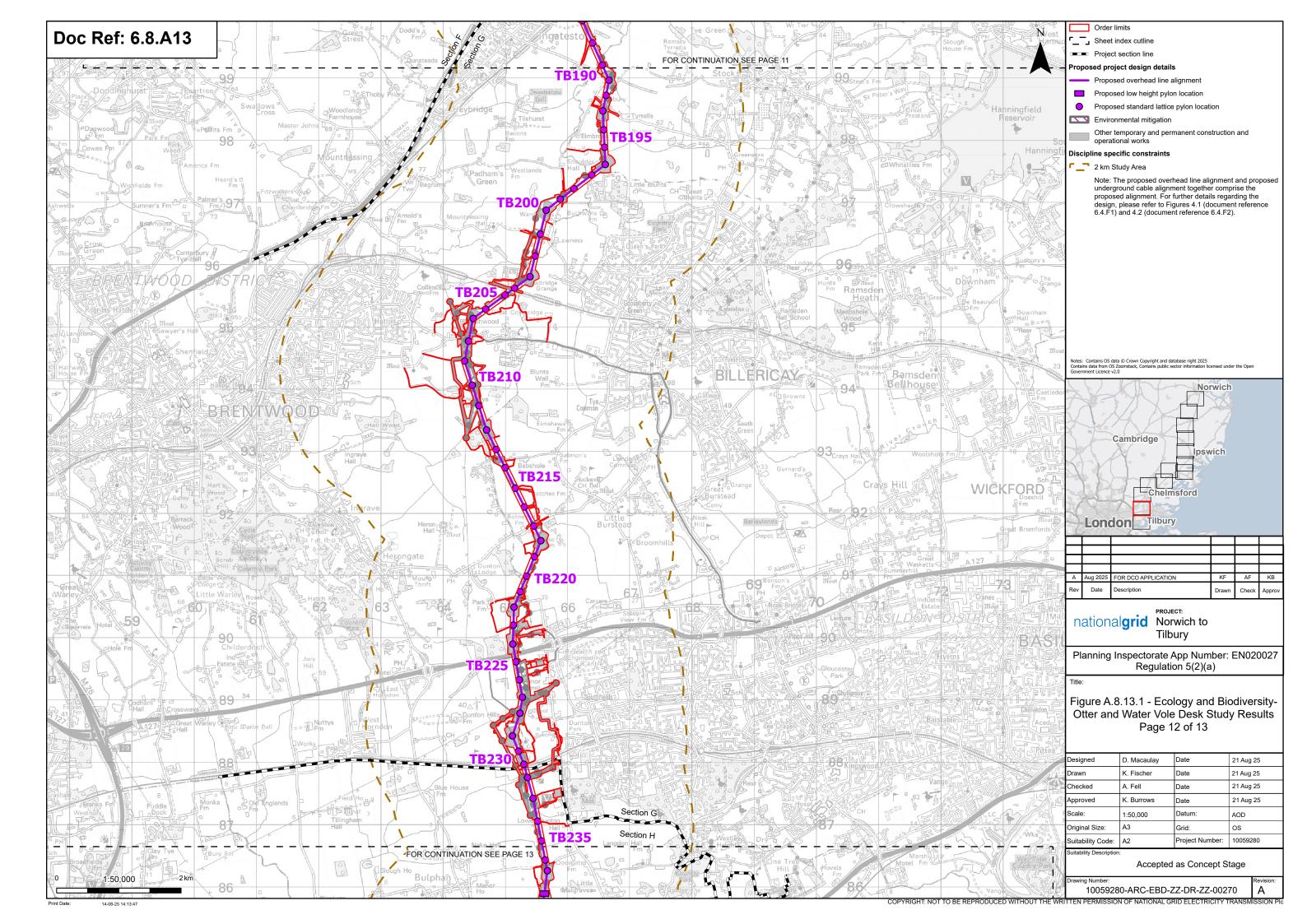












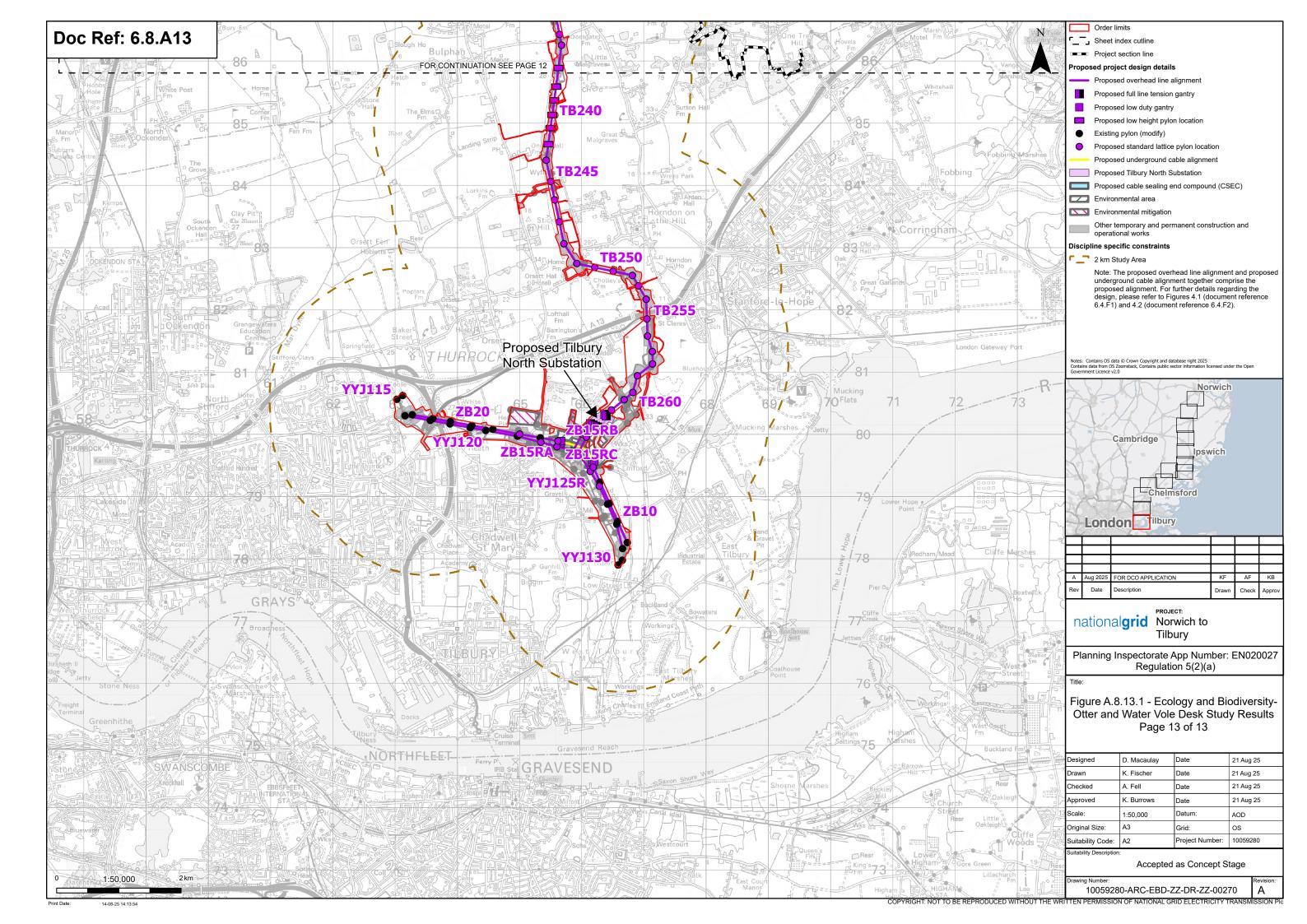
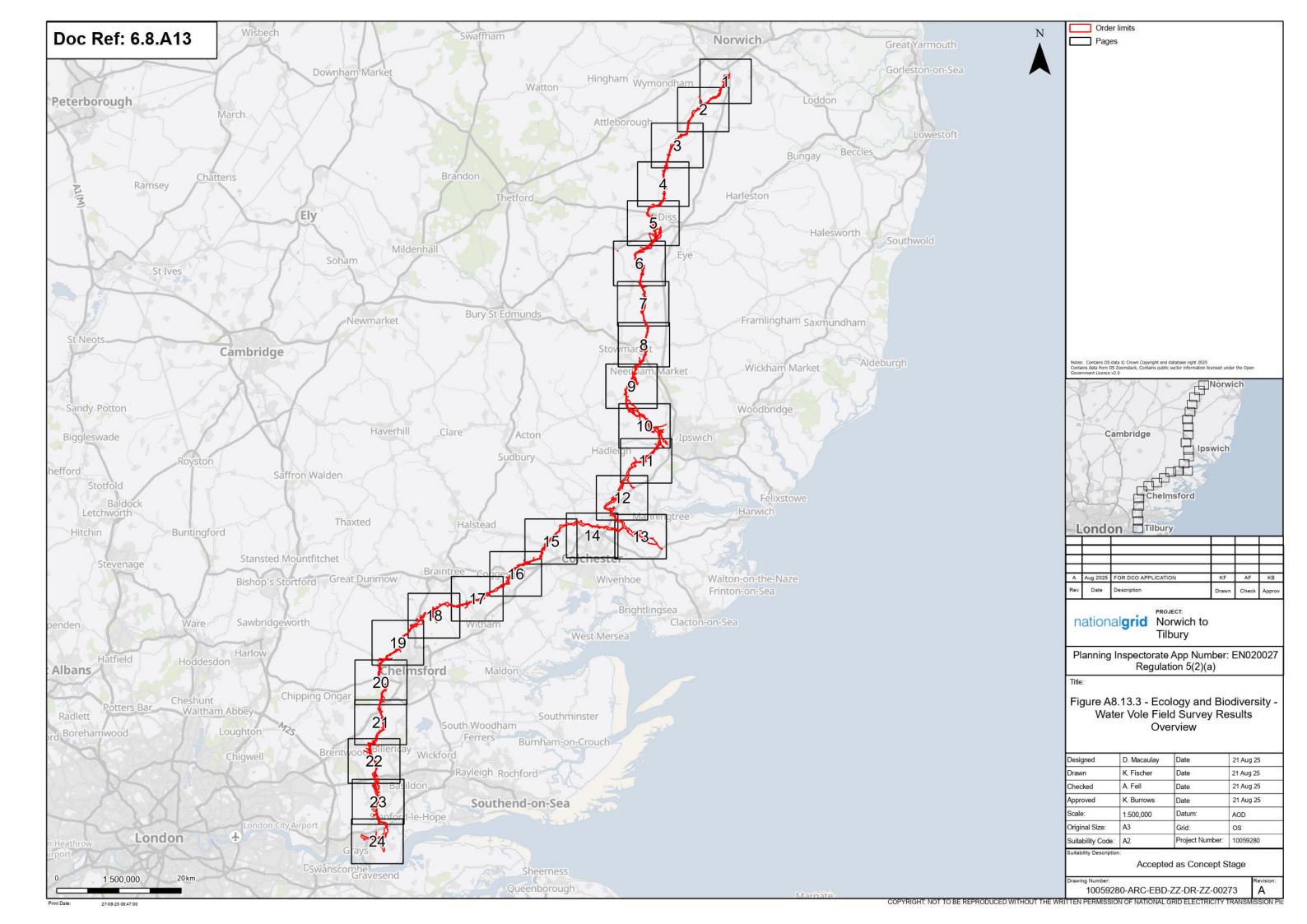
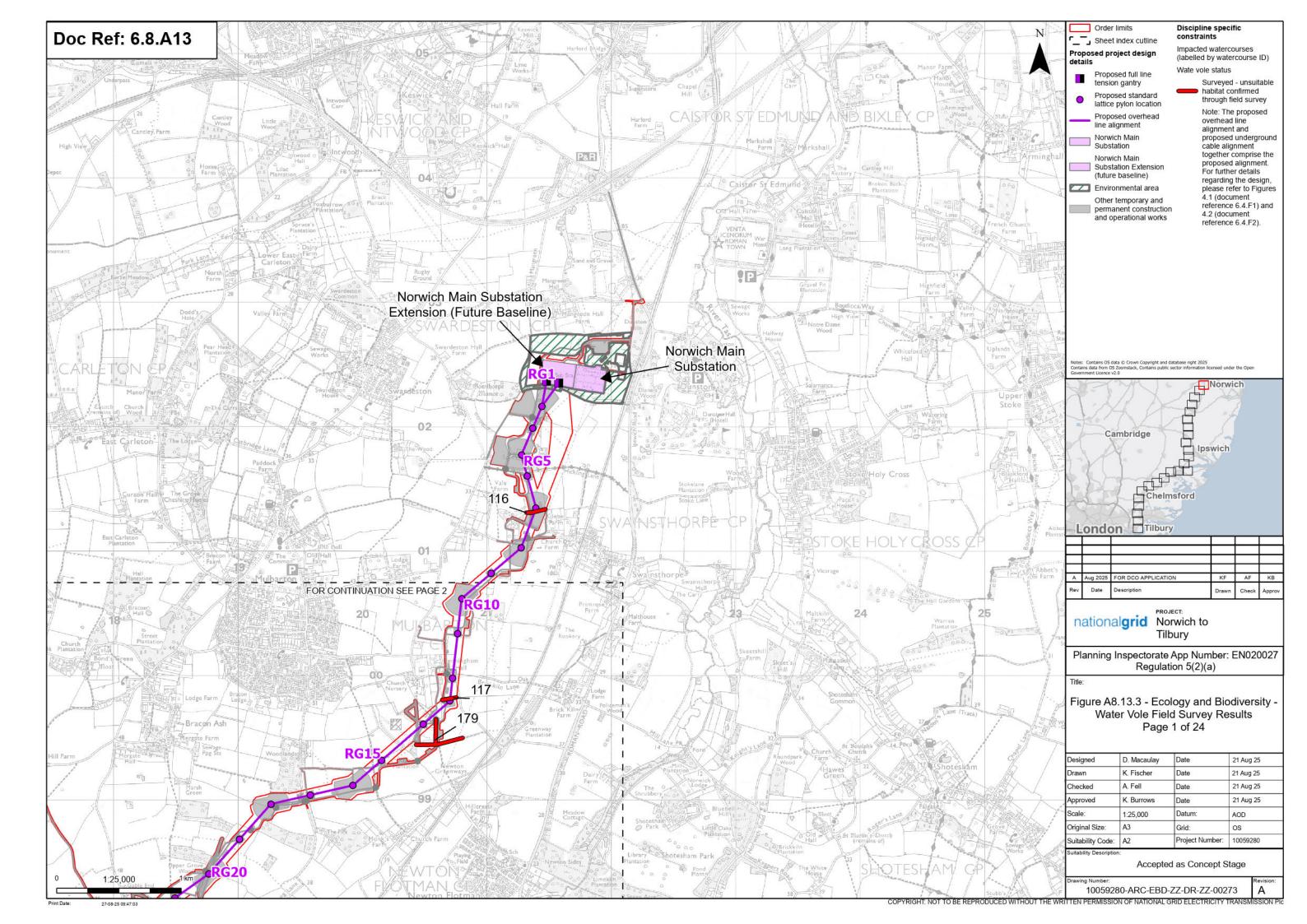
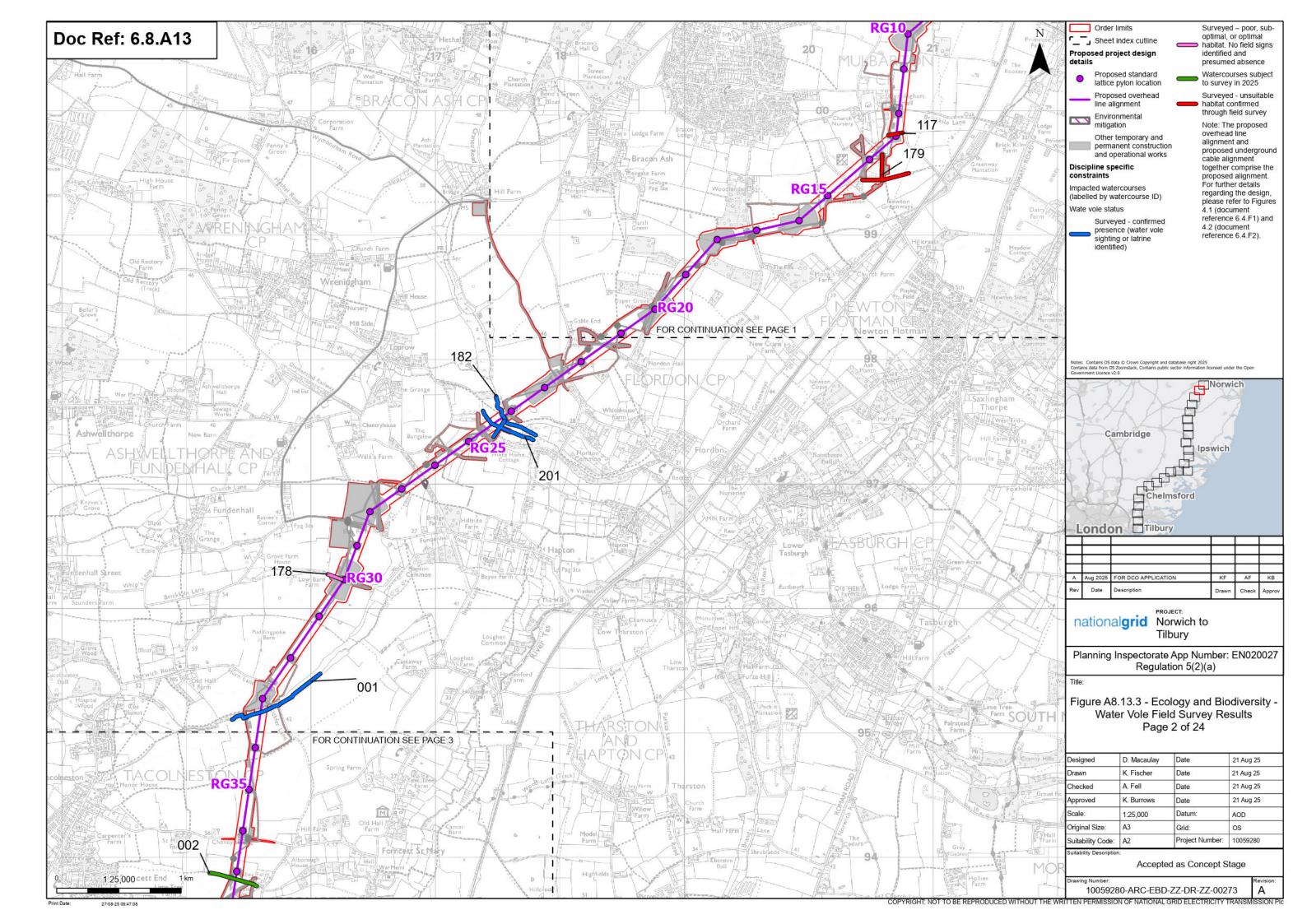
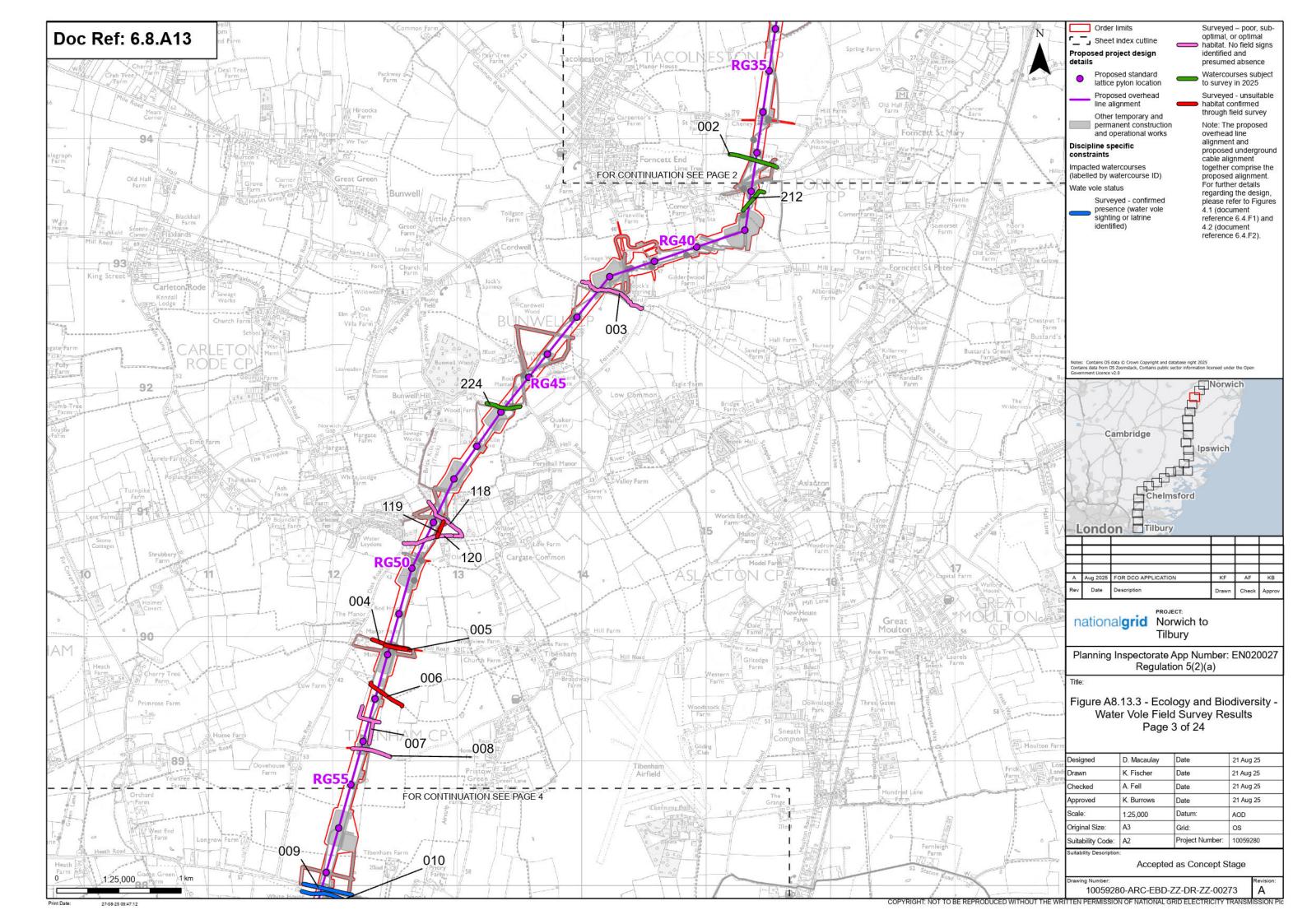


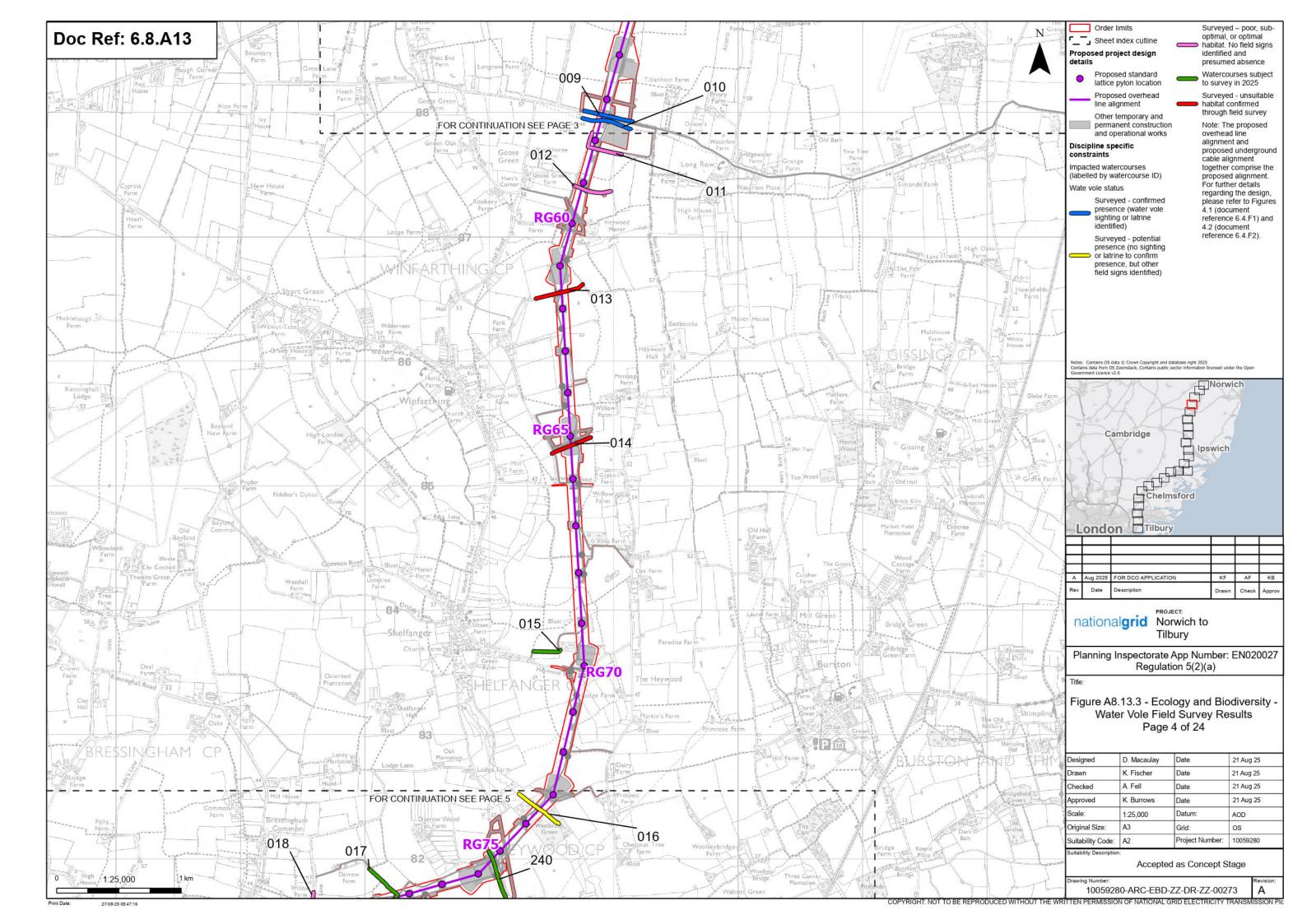
Figure A8.13.2 Otter Field Survey Results
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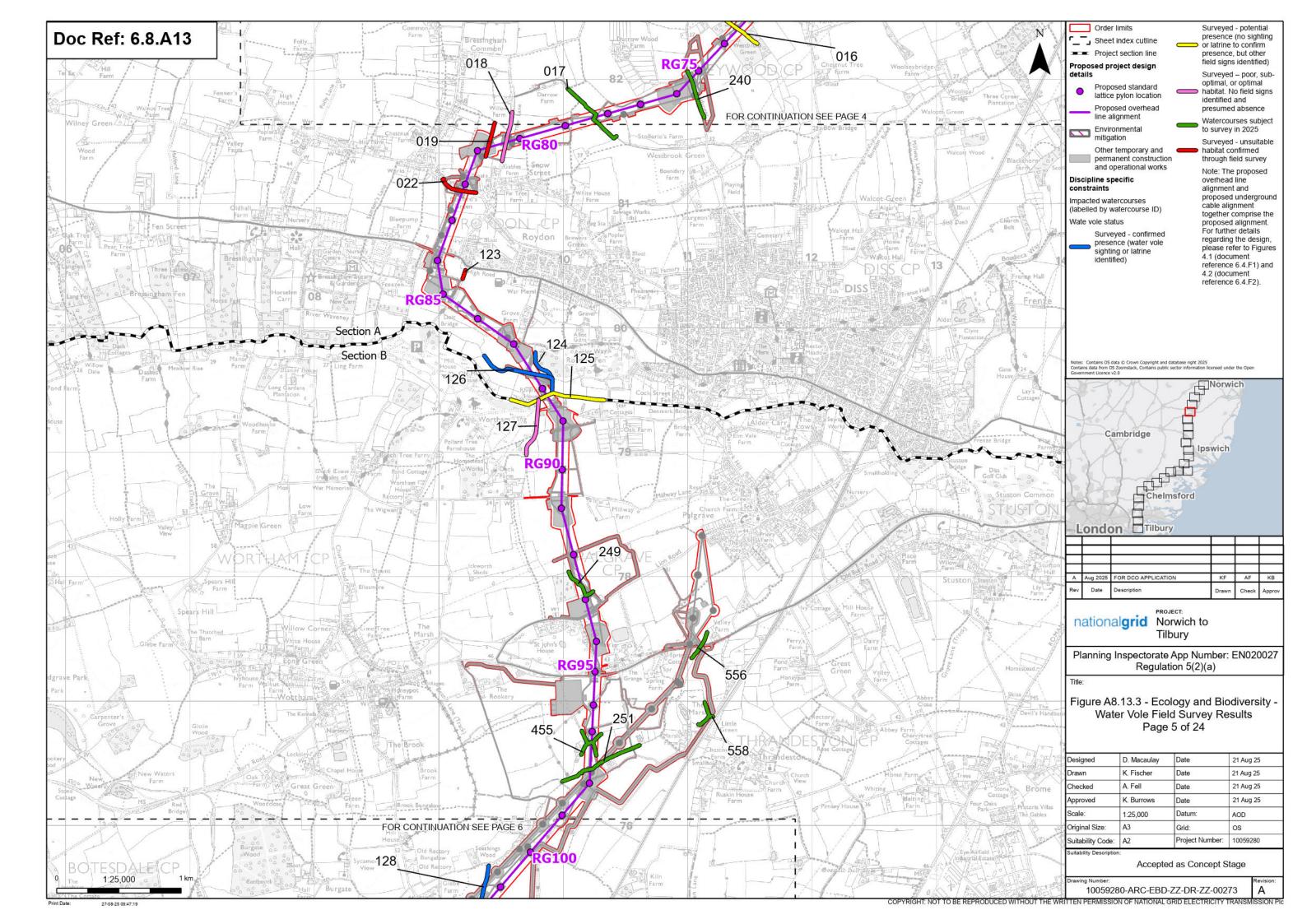


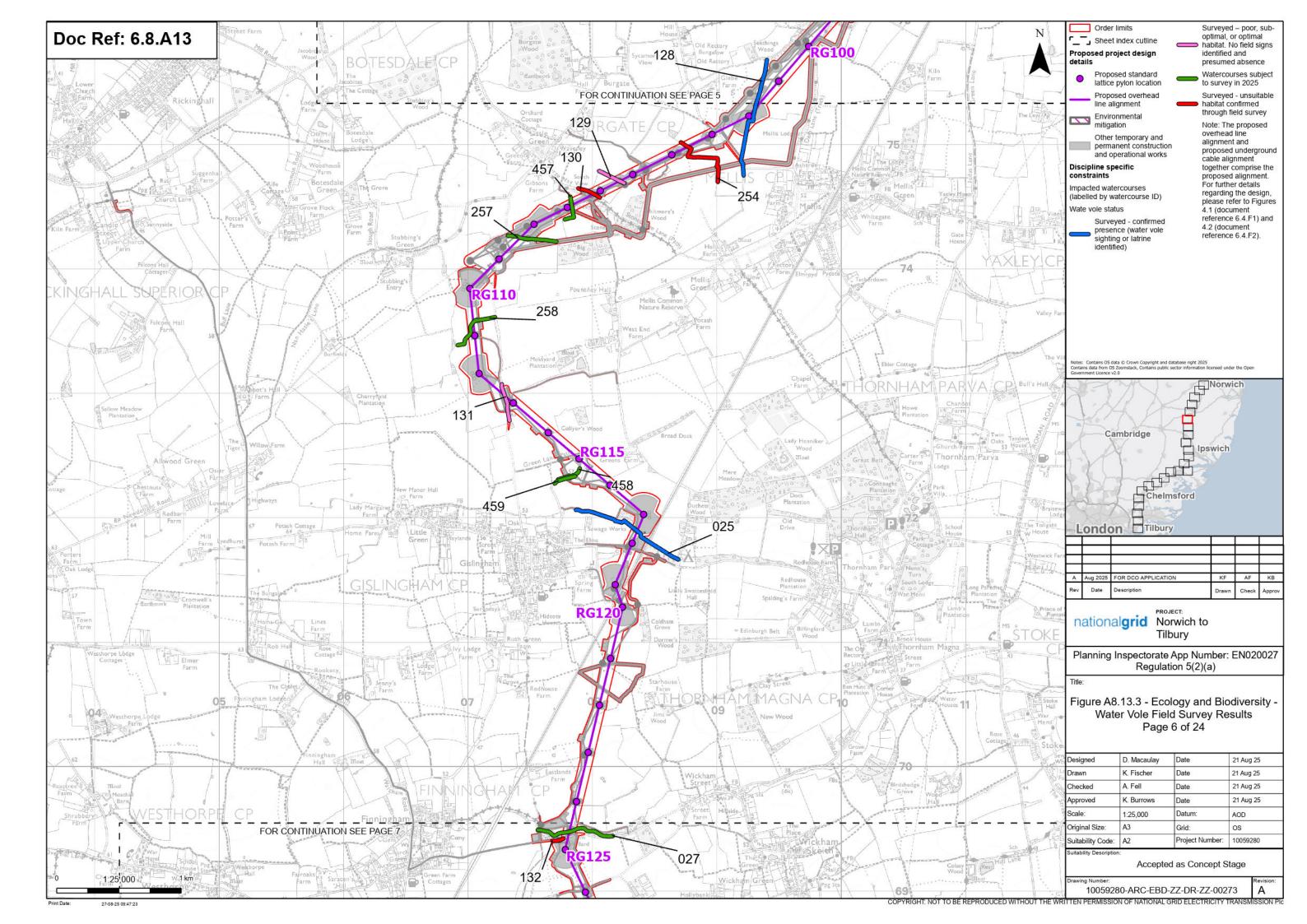


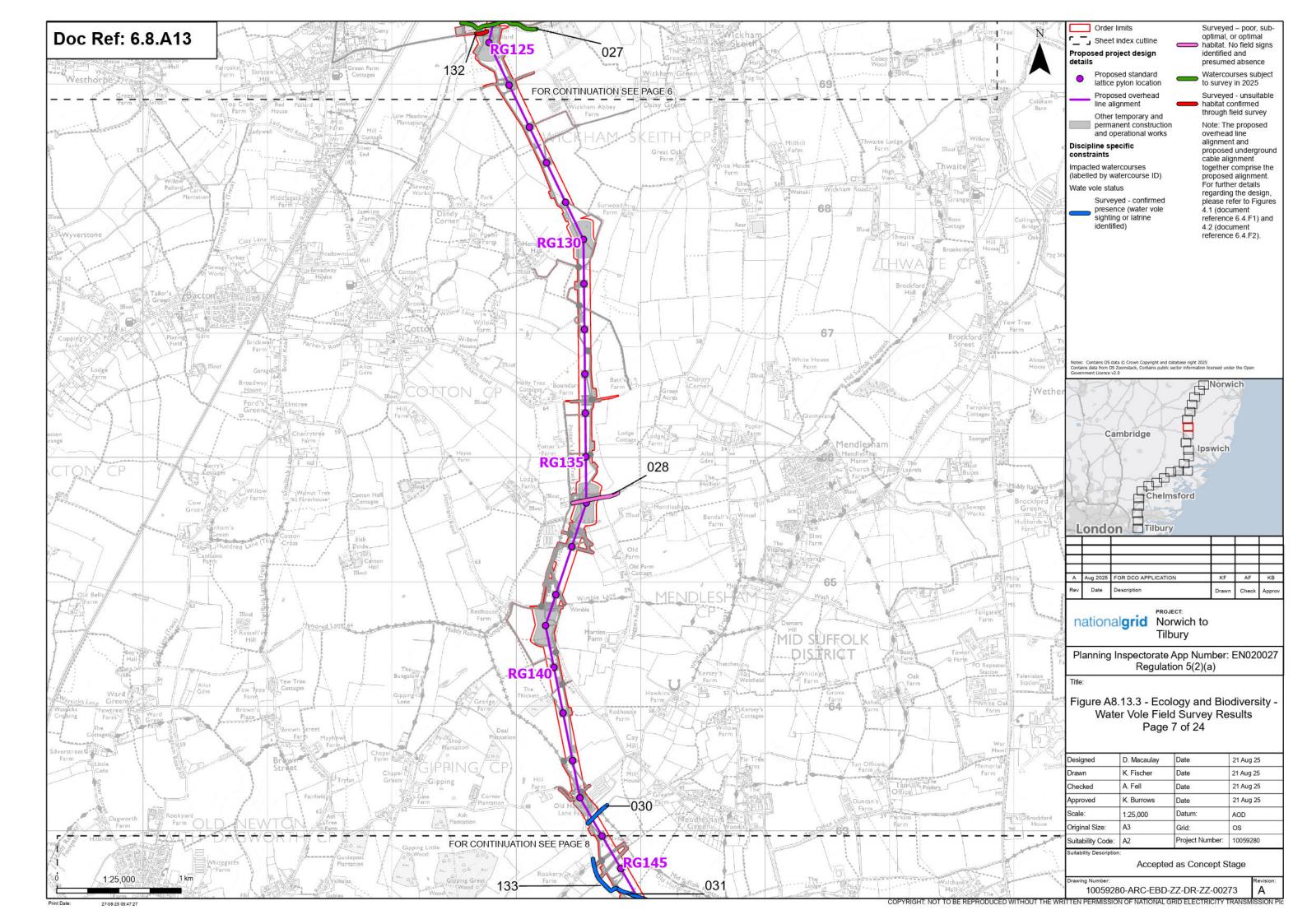


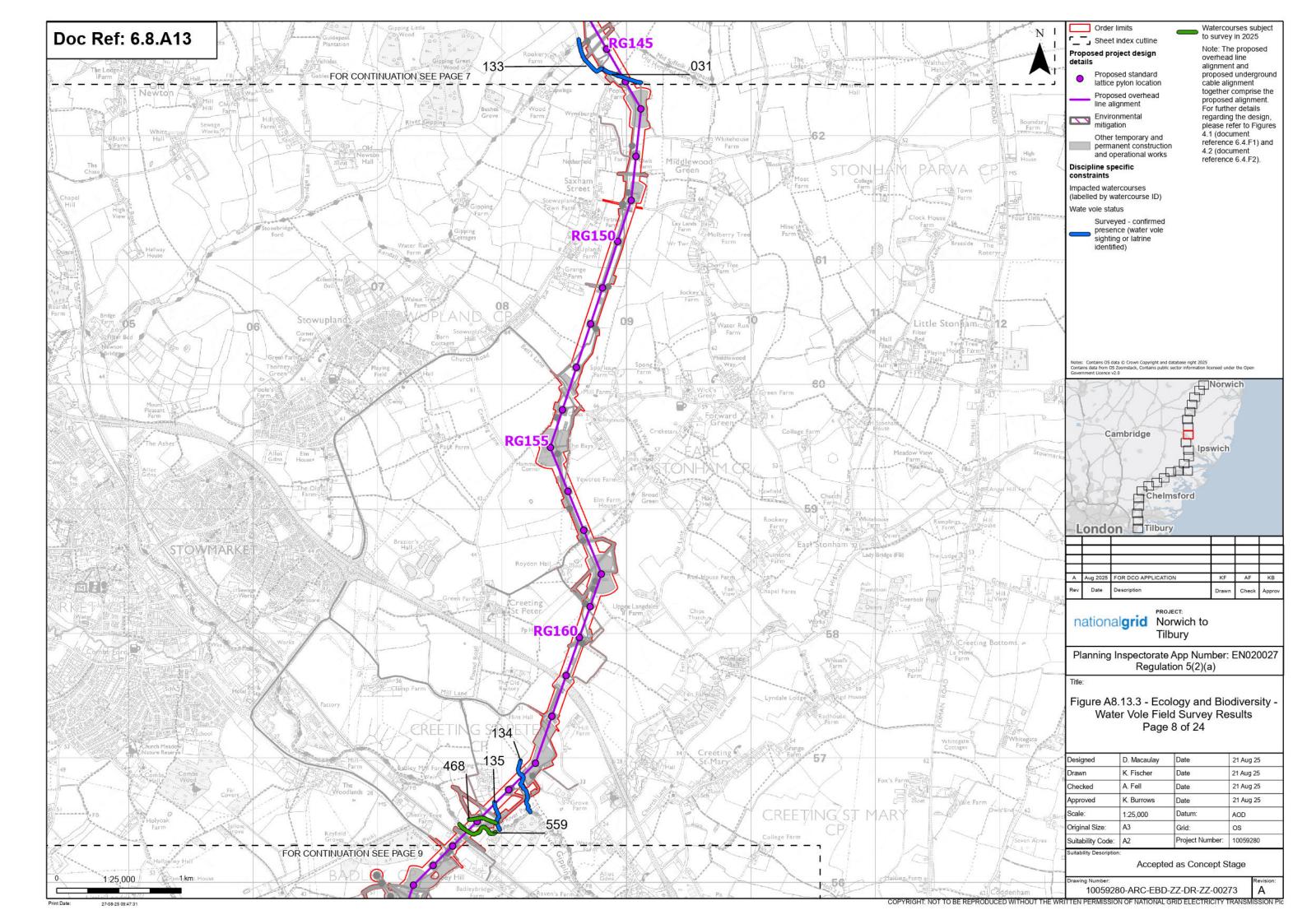


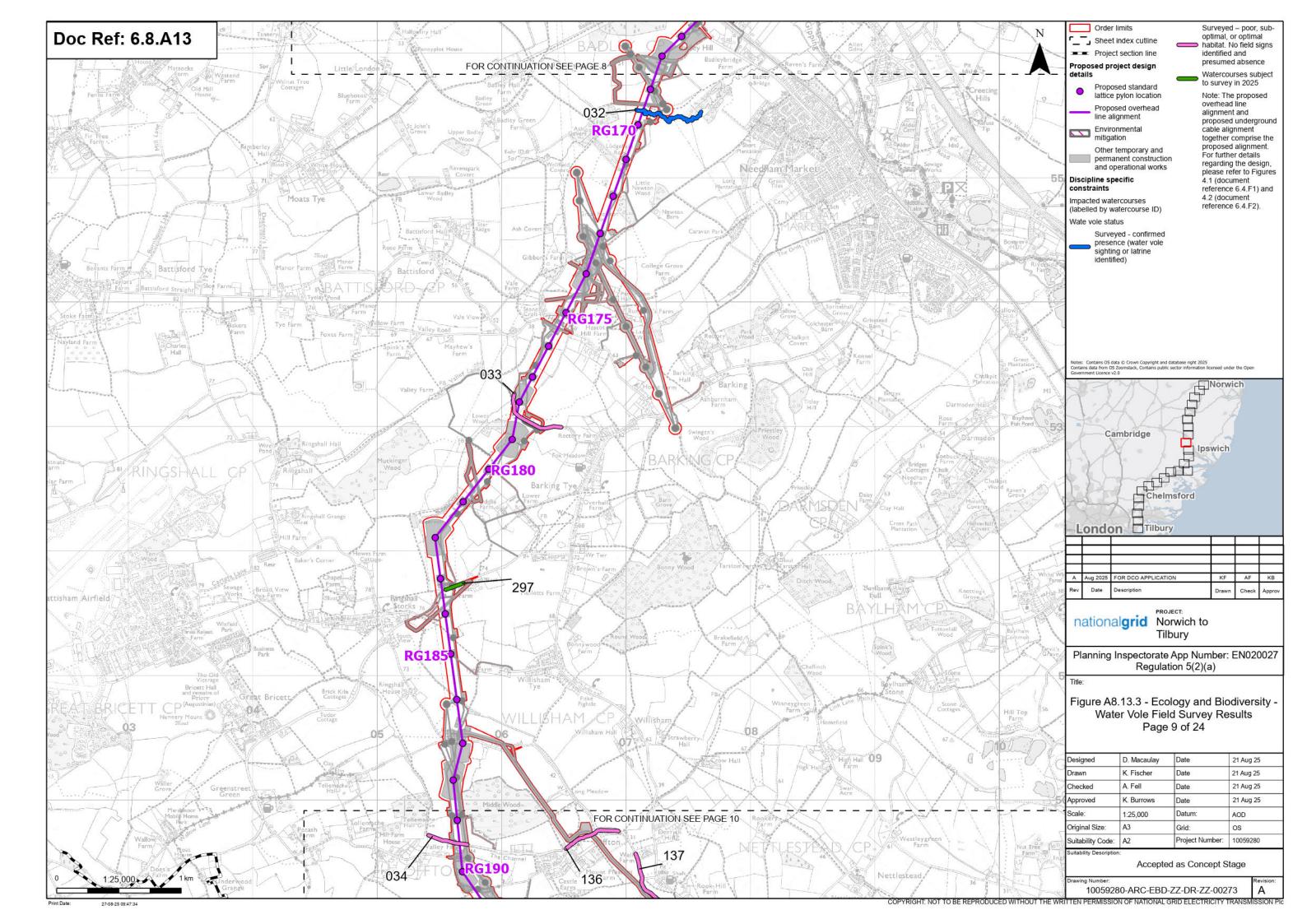


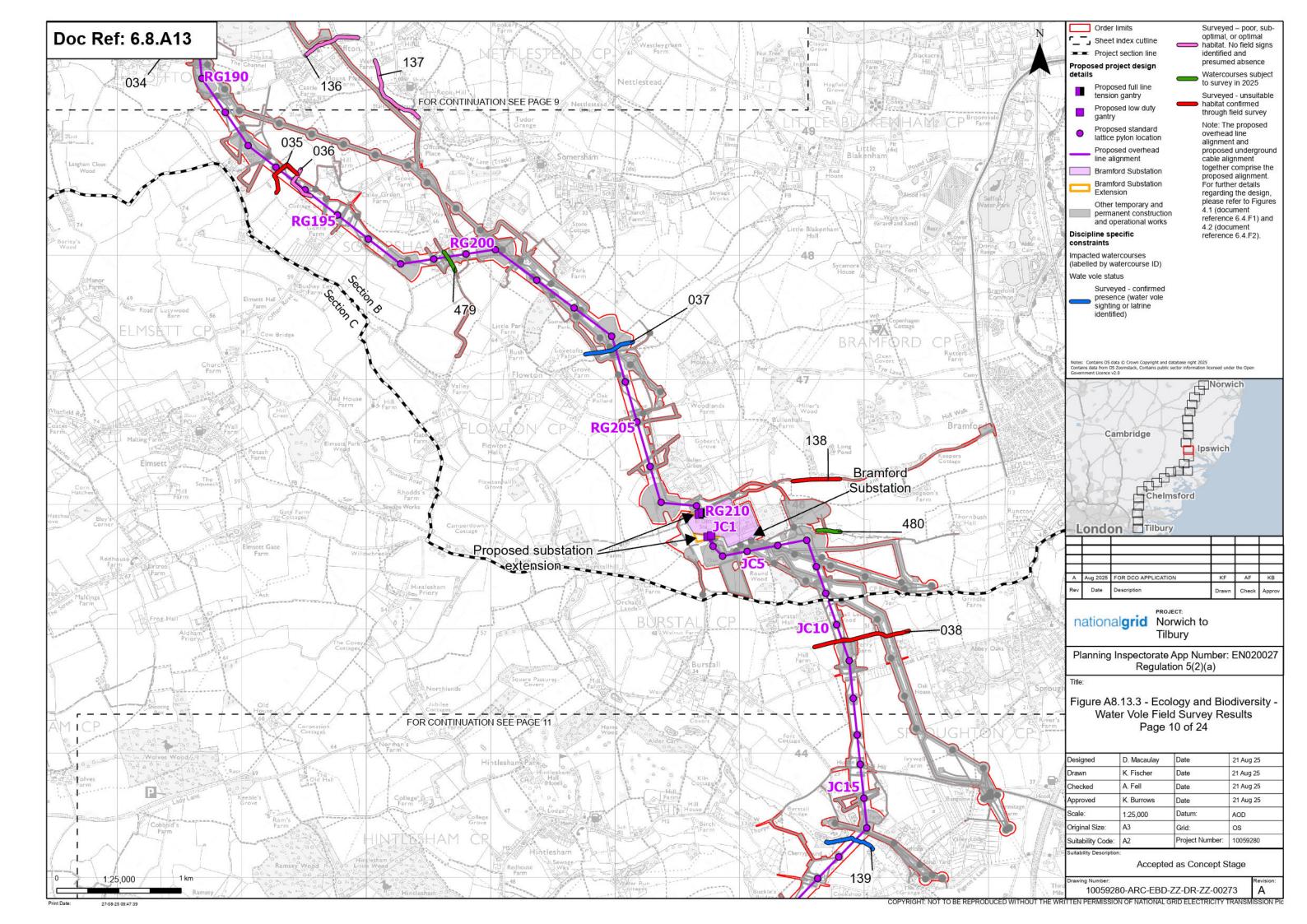


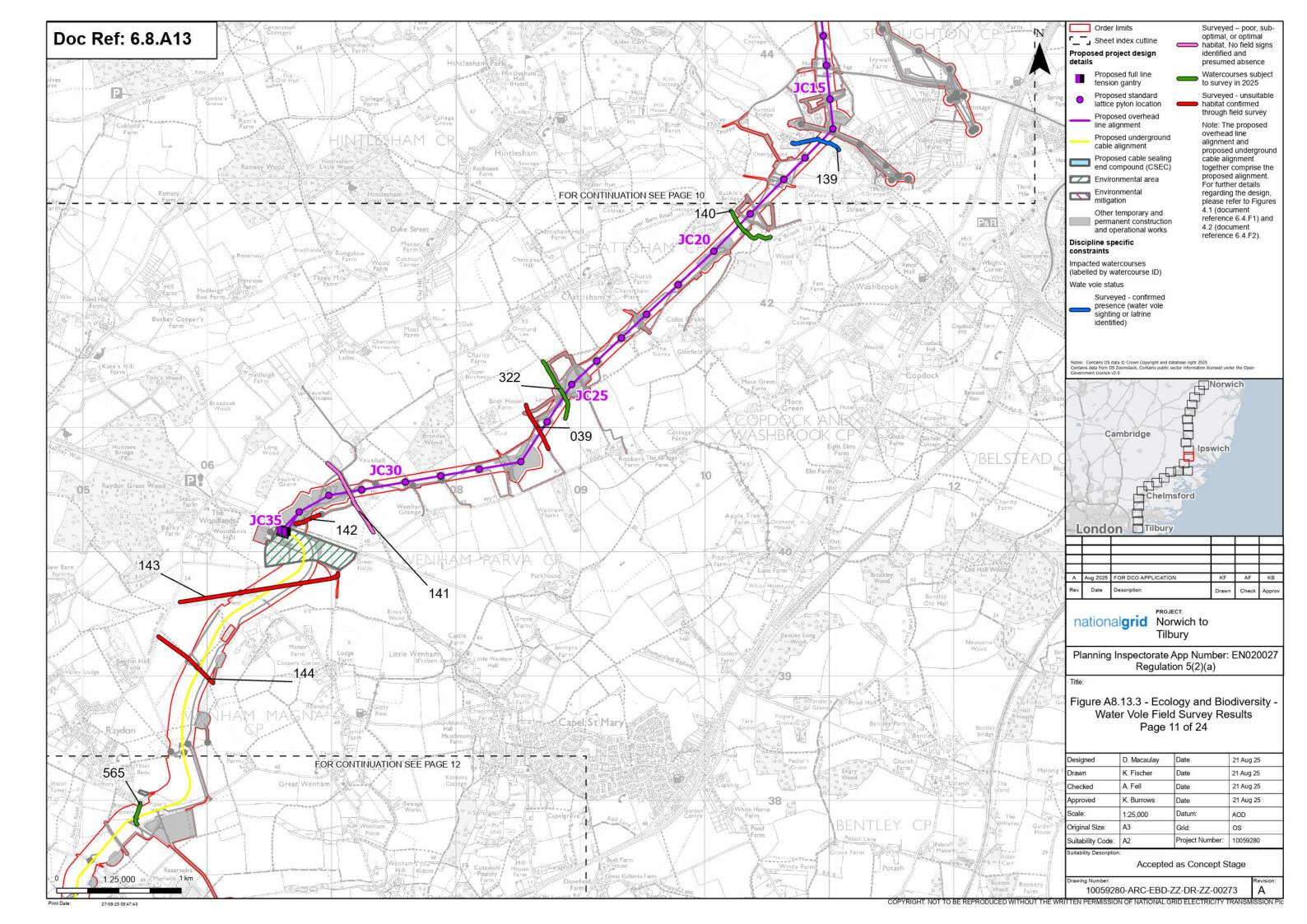


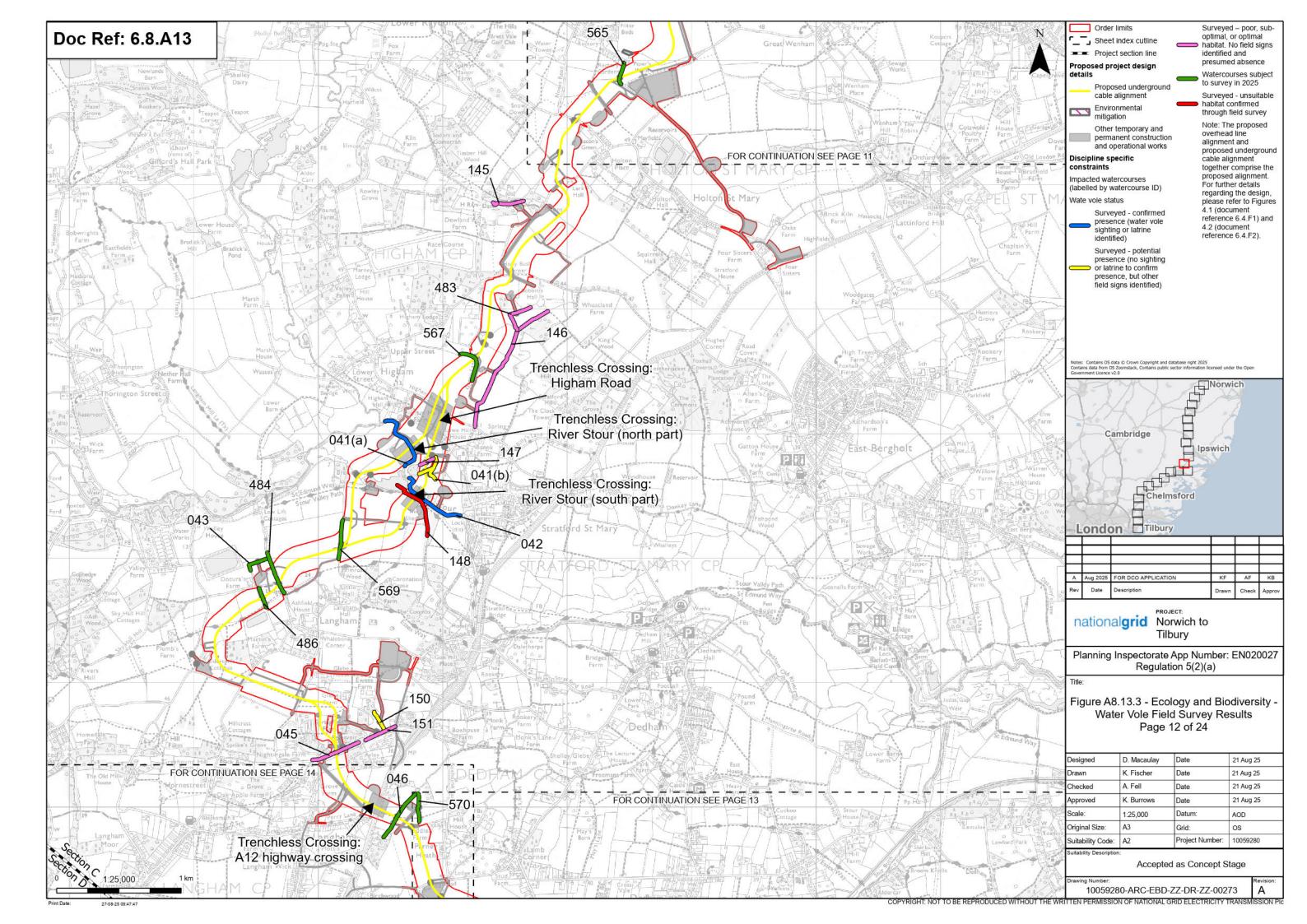


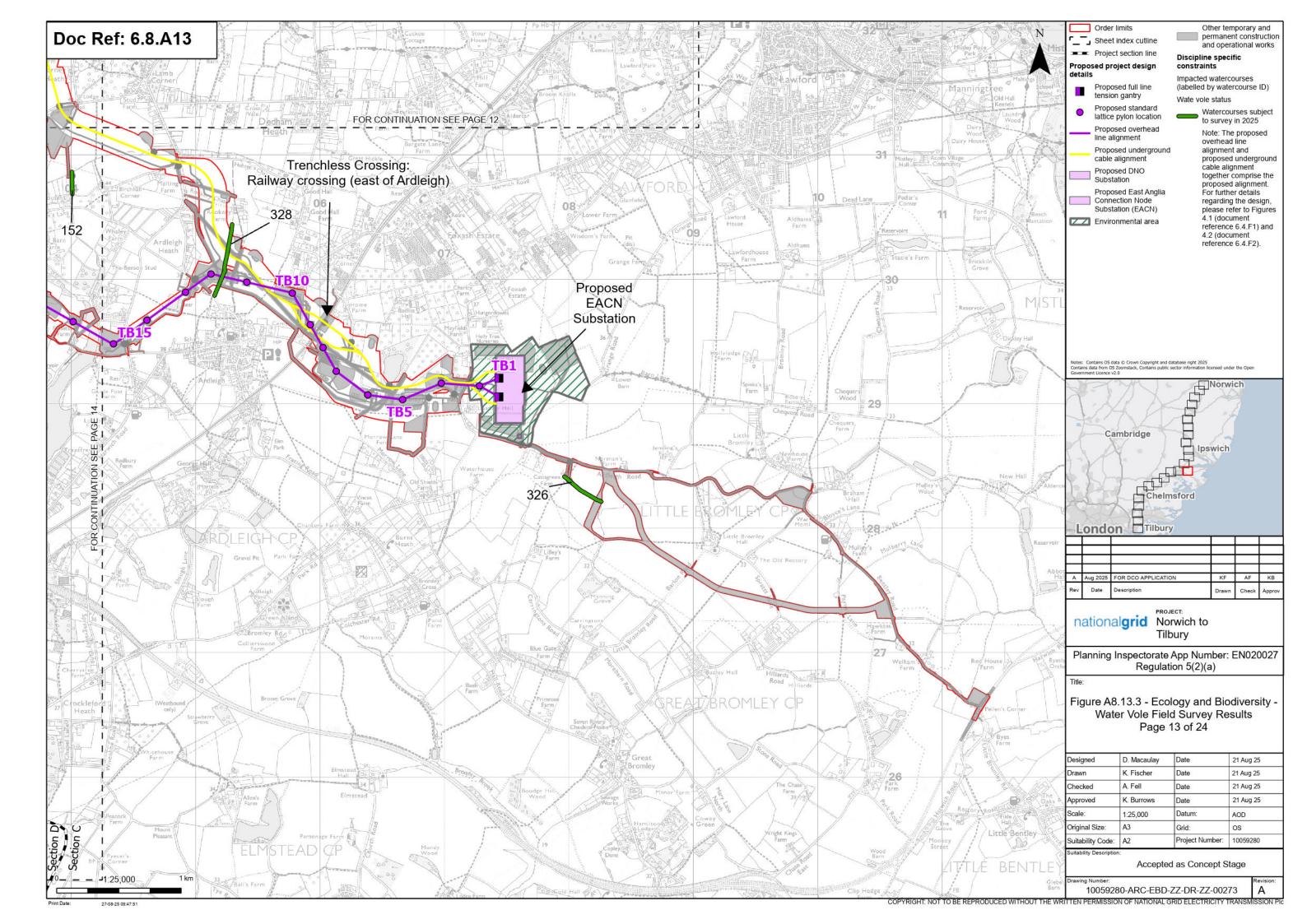


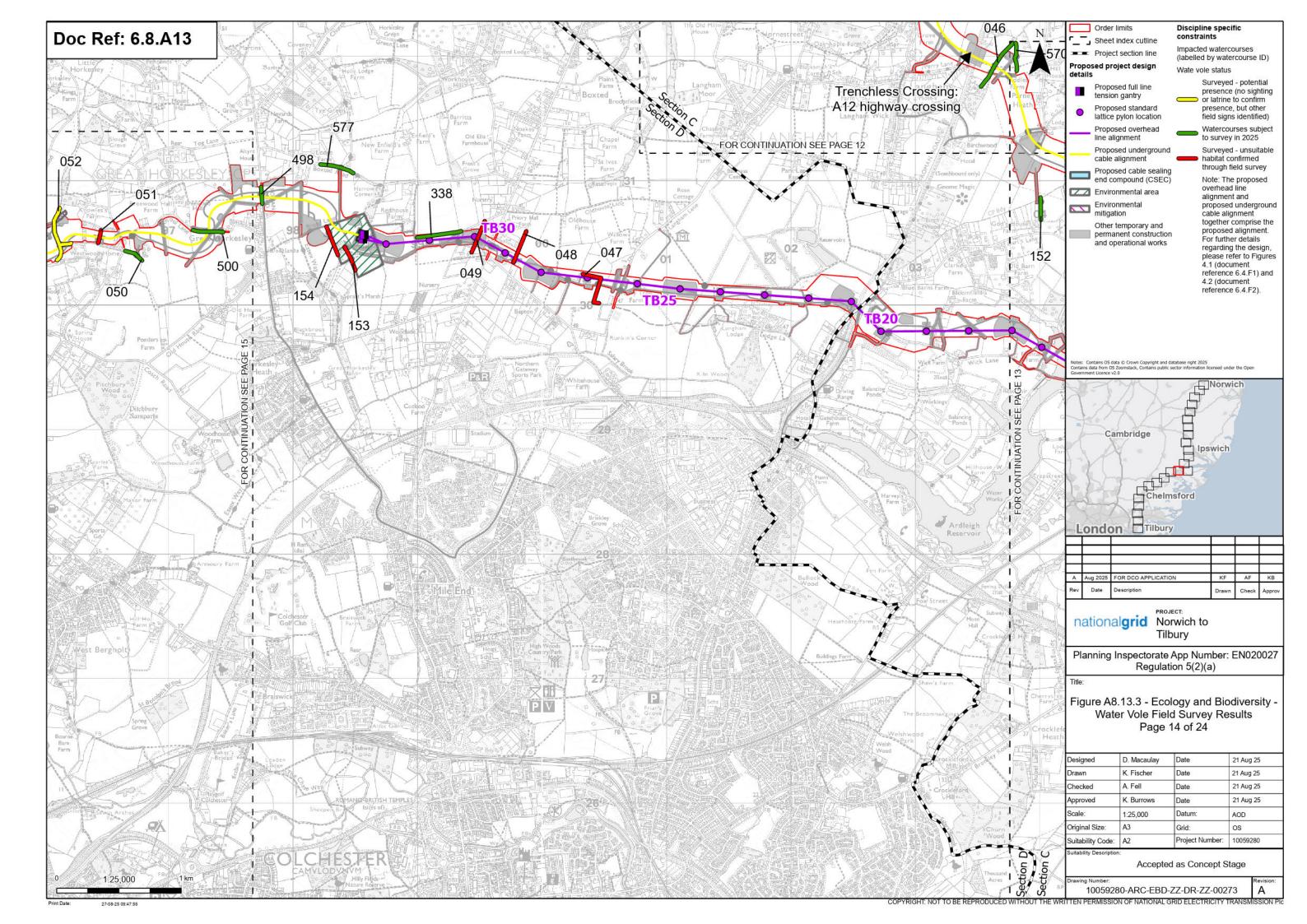


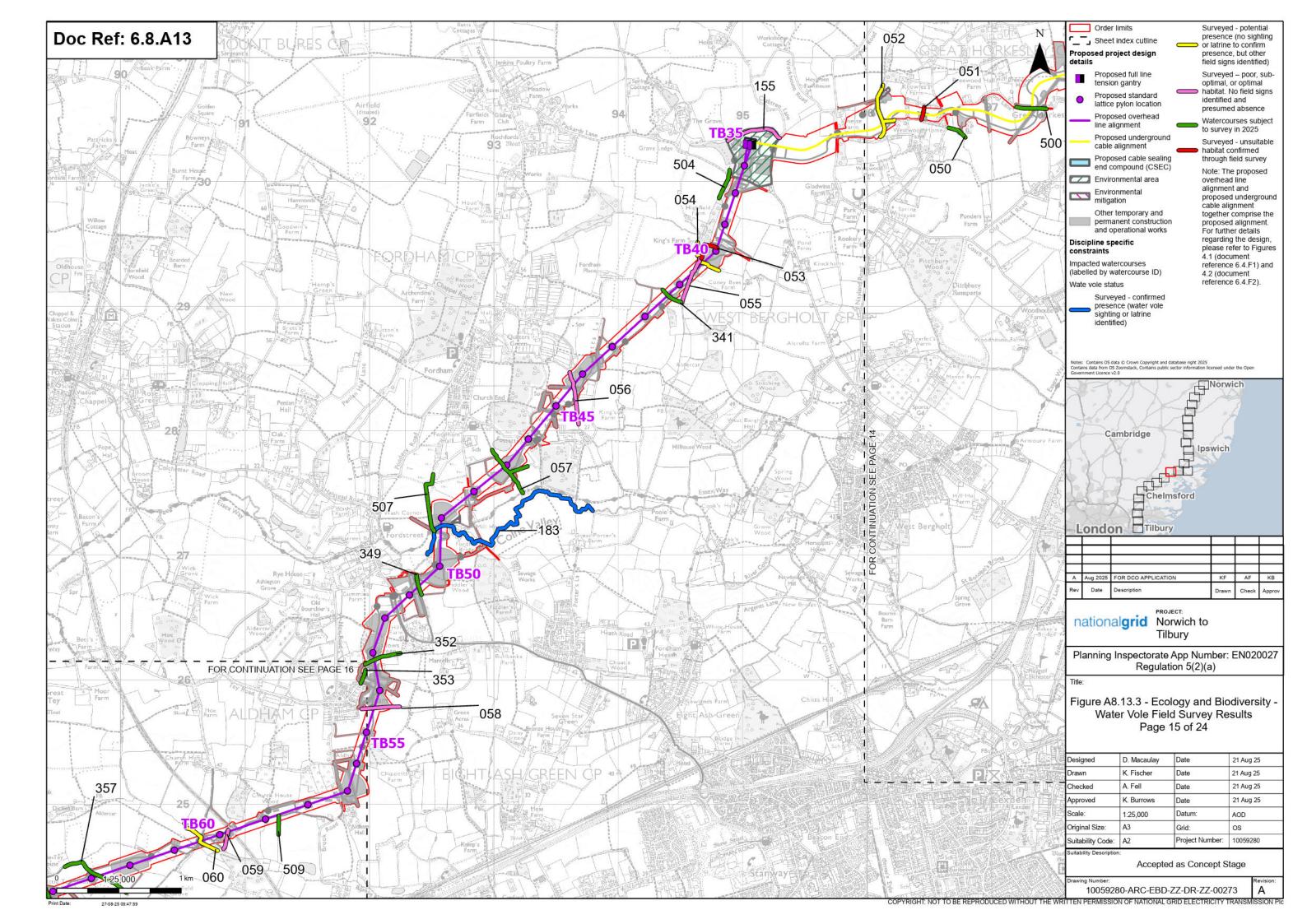


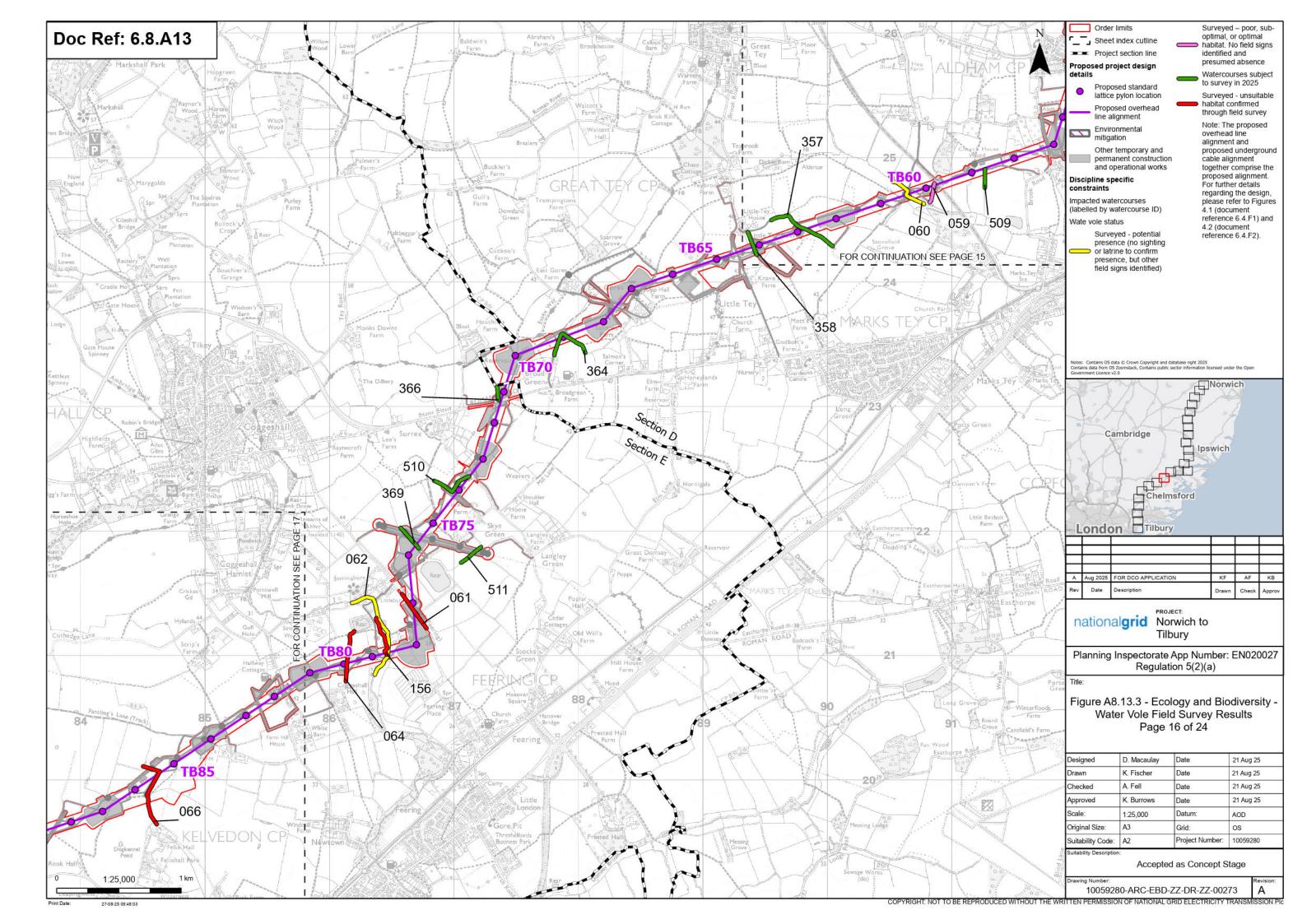


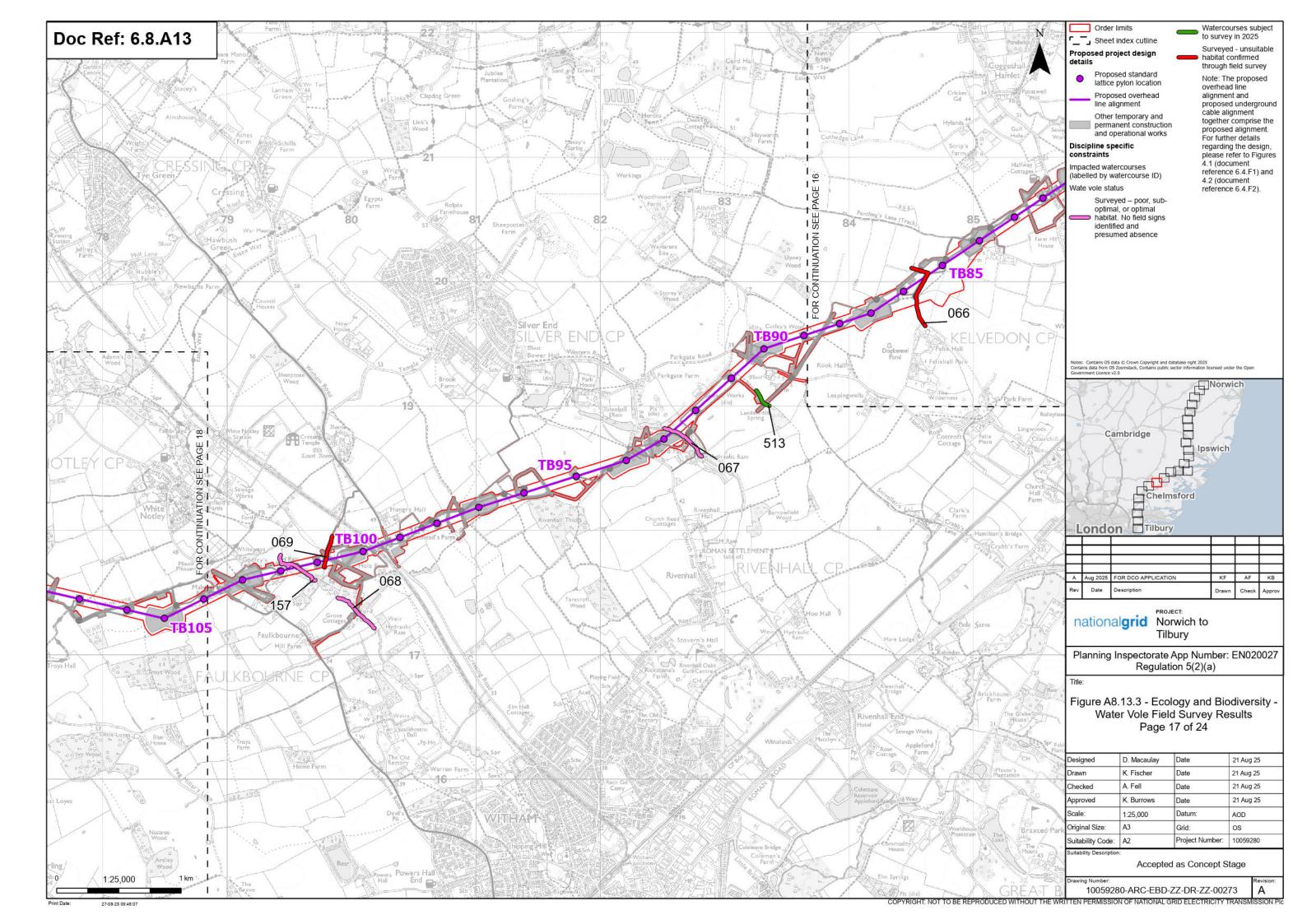


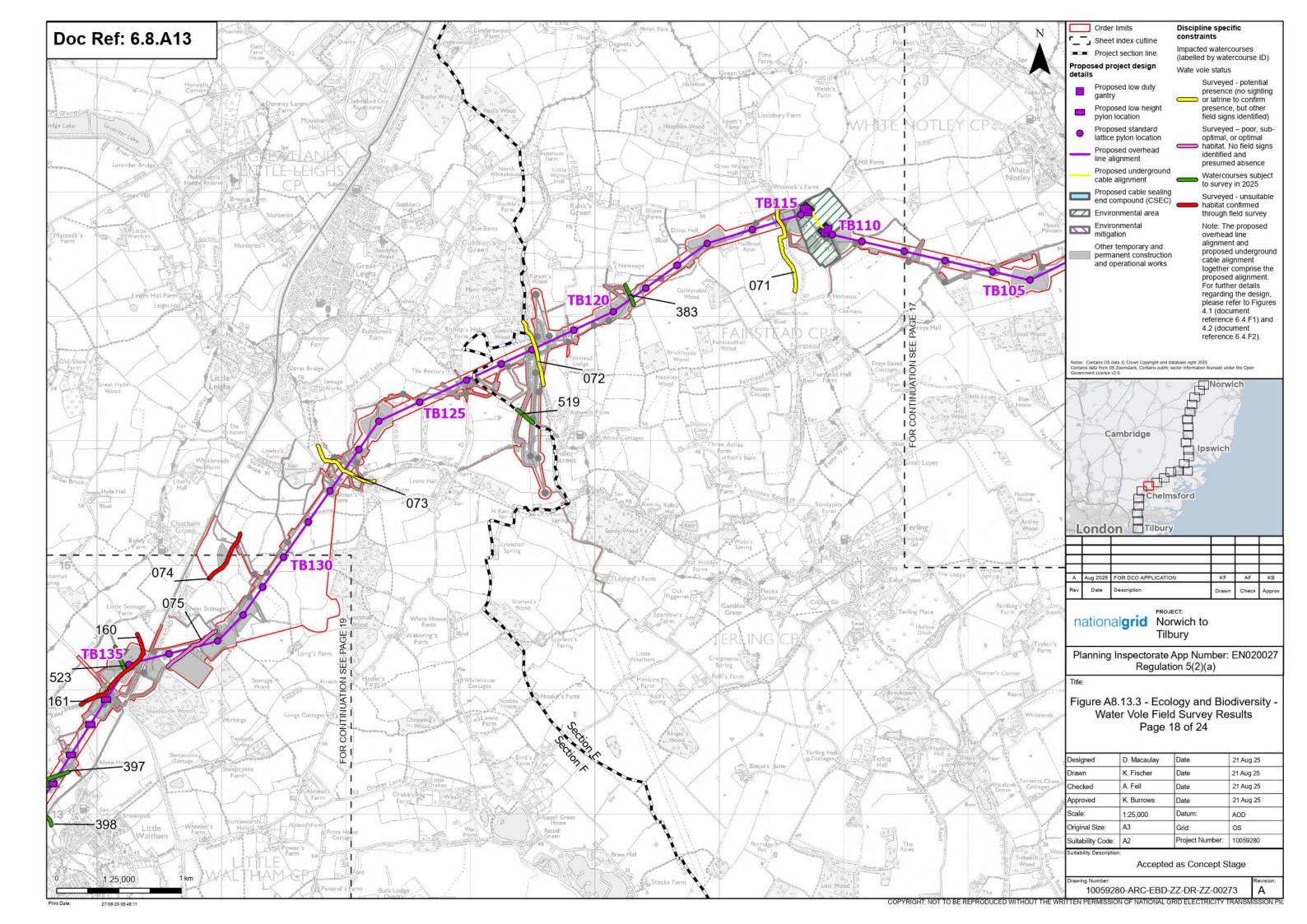


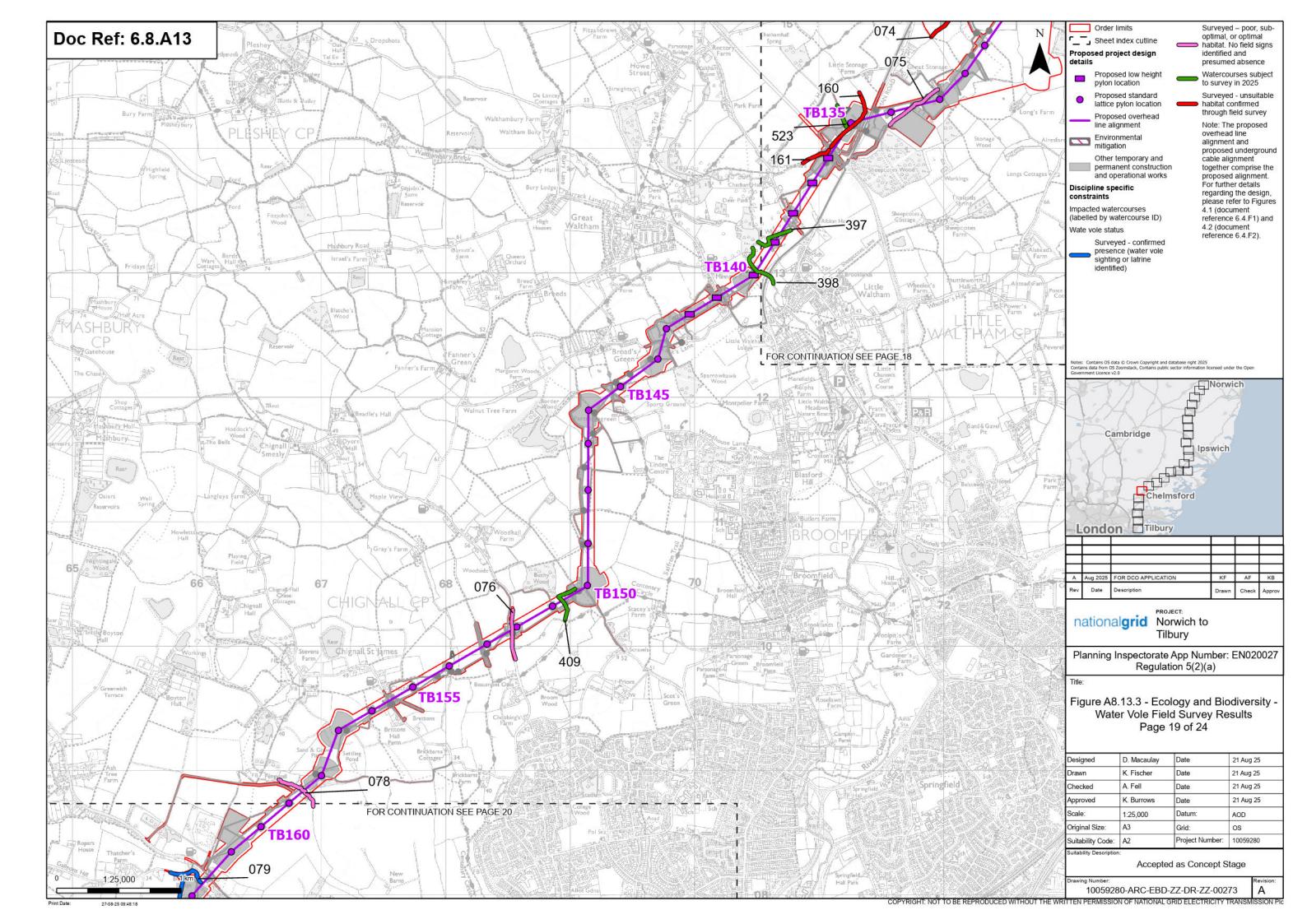


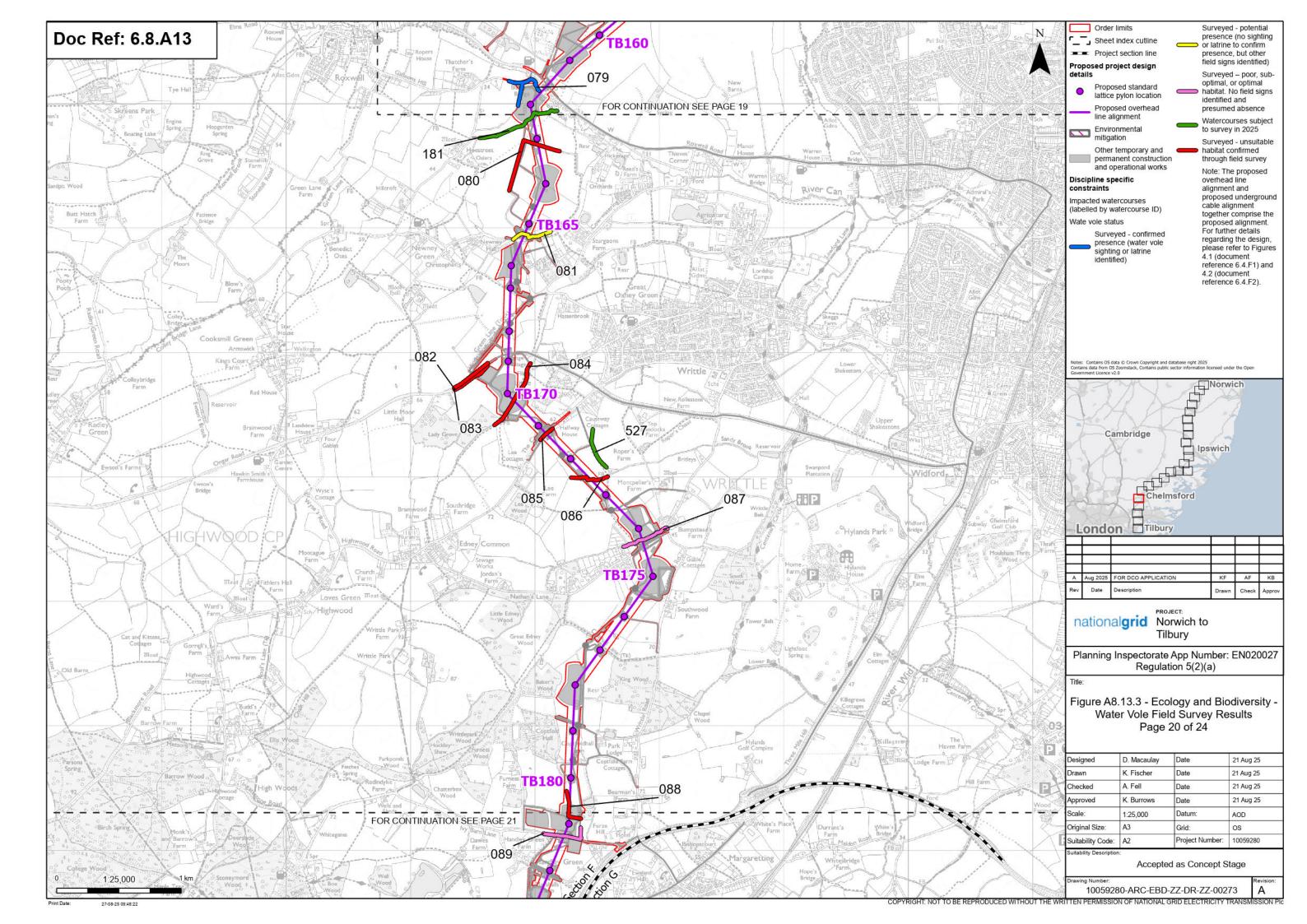


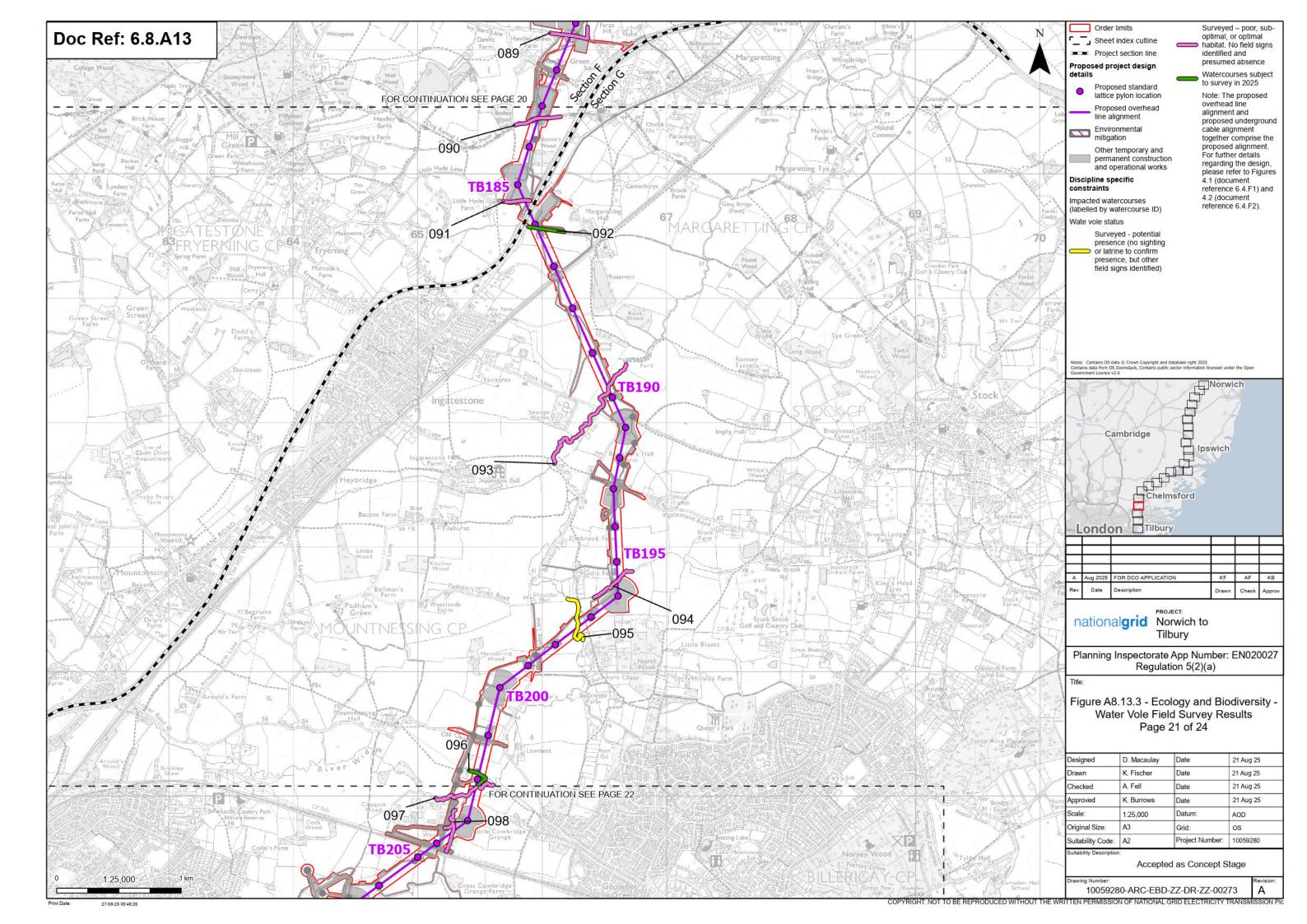


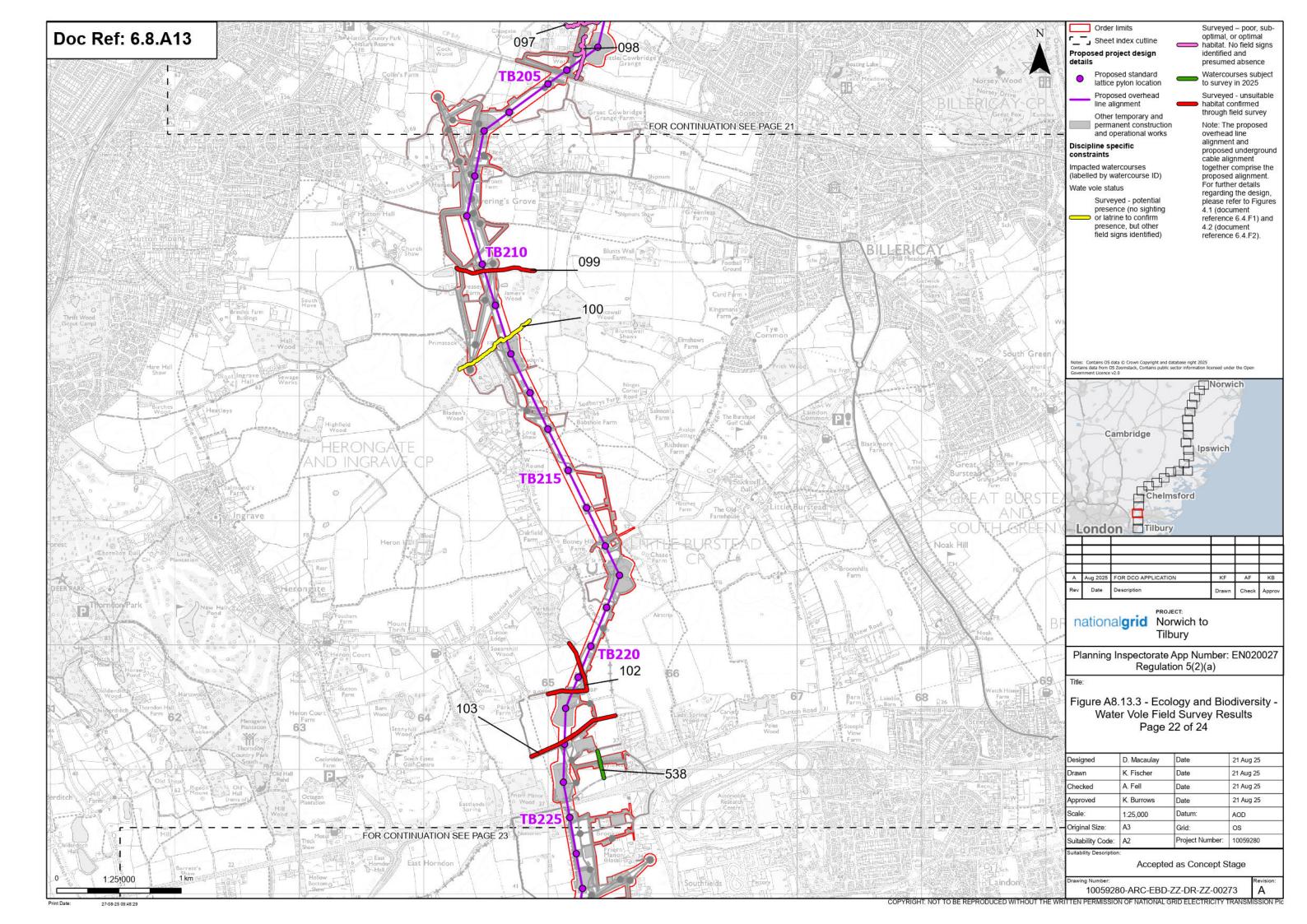


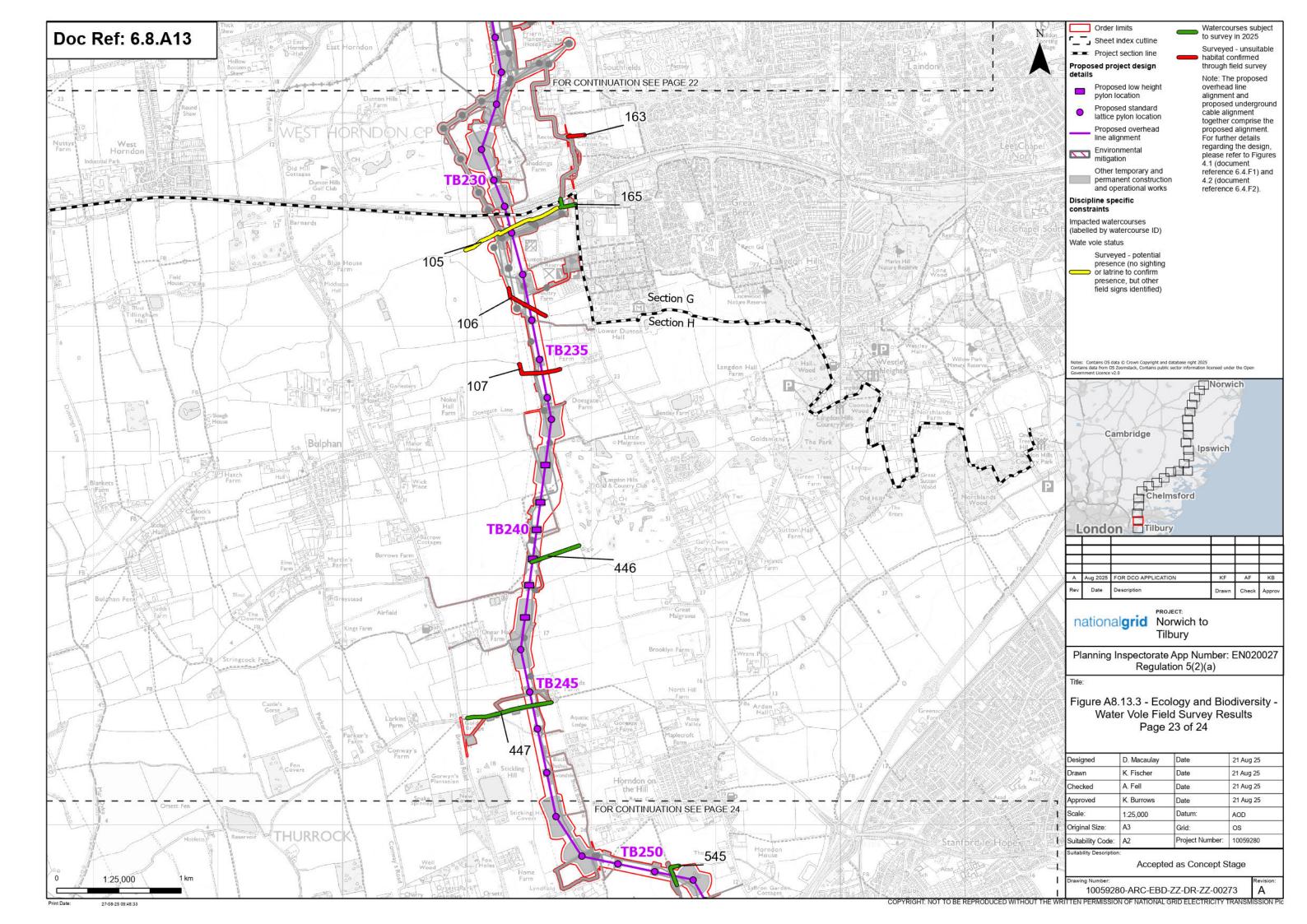


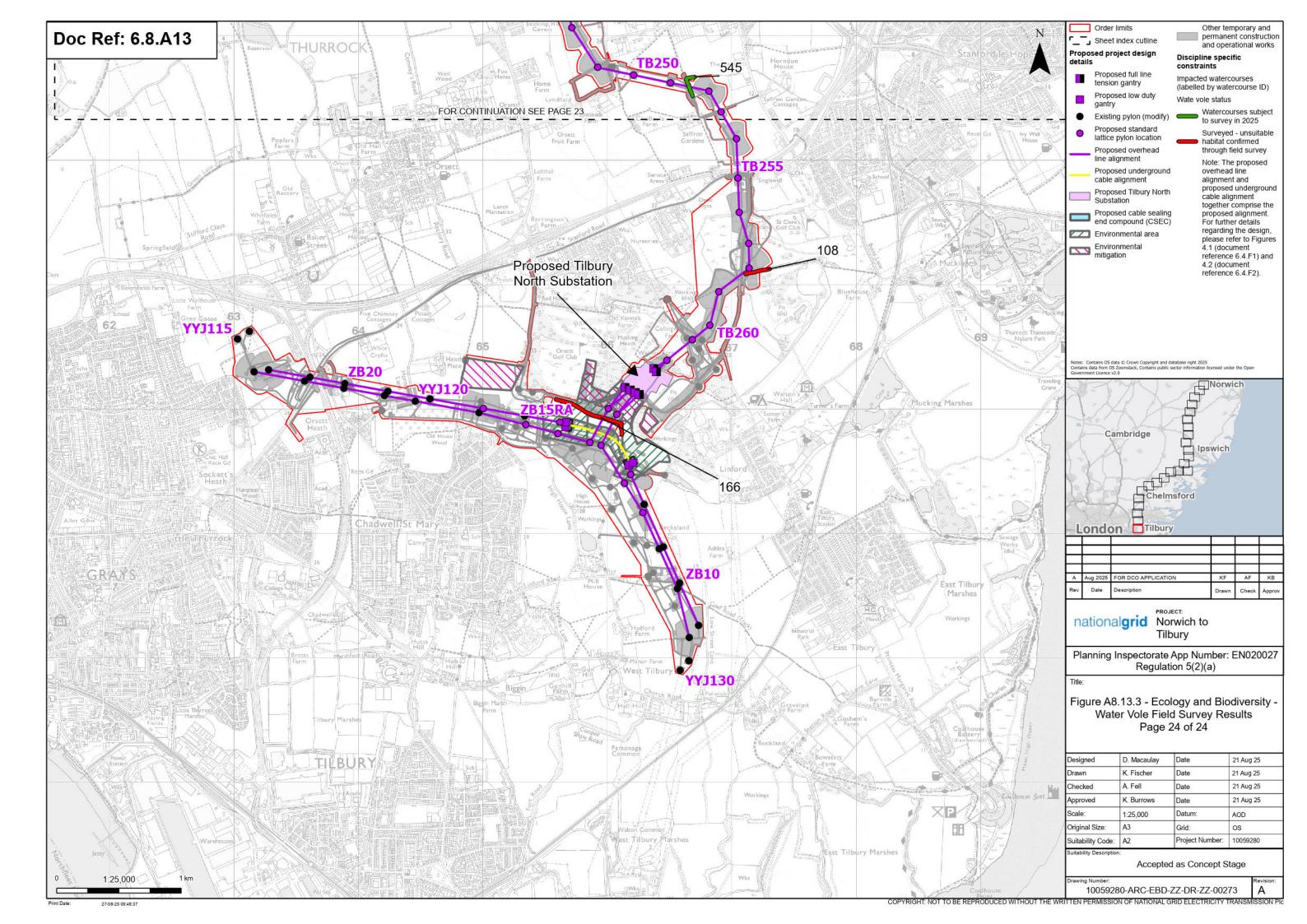












## Annex B. Otter and Water Vole Survey Results for Impacted Watercourses

Table A8.13.9 Otter and water vole survey results for impacted watercourses

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	1	08/08/23, 14/05/24		None	No signs recorded	Sub-optimal habitat	Latrines, burrows, footprints	Confirmed presence
A	2	08/08/23.		None	No signs recorded	Poor habitat	None	Unknown (1 survey)

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	3	08/08/23, 14/05/24		None	No signs recorded	Sub-optimal Habitat	Considered absent: no further survey required	Confirmed absence
A	4	15/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	5	15/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	6	15/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	7	15/05/24, 15/08/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
A	8	15/05/24, 15/08/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	9	15/05/24		None	No signs recorded	Sub-optimal habitat	Latrine, burrows	Confirmed presence
A	10	16/05/24		None	No signs recorded	Sub-optimal habitat	Latrine, burrow, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	11	16/05/24, 14/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
A	12	16/05/24, 14/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	13	08/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	14	09/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	16	16/09/24.				Sub-optimal habitat	Potential water vole burrow.	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	17	09/08/23		None	No signs recorded	Sub-optimal habitat	None	Unknown (1 survey)
A	18	09/08/23, 16/05/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	19	09/08/23, 17/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	22	17/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	116	14/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	117	17/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	118	14/05/24, 15/08/24		Footprints	Confirme d presence	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
A	119	15/05/24	None	None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	120	14/05/24, 15/08/24		Spraint	Confirme d presence	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	123	21/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
A	124	22/05/24		Spraints	Confirme d presence	Sub-optimal habitat	Latrine	Confirmed presence
A	126	22/05/24		Spraints	Confirme d presence	Optimal habitat	Latrine, feeding stations.	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	178	14/05/24, 15/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
A	179	17/05/24		None	No signs recorded		Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	182	16/09/24		No signs but landowner showed a recent photograph of otter in the stream.	Confirme d presence	Sub-optimal habitat	Latrine	Confirmed presence
A	201	16/09/2024		None	No signs recorded	Optimal habitat	Latrines, burrows, feeding station	Confirmed presence
A/B	125	21/05/24, 14/08/24		Otter signs confirmed at nearby connected watercourses 124 and 126.		Optimal habitat	Potential burrow	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	25	22/05/24, 16/10/24		None	No signs recorded	Sub-optimal habitat	Latrine	Confirmed presence
В	27	10/08/23.		None	No signs recorded	Sub-optimal habitat	None	Unknown (1 survey)
В	28	23/05/24, 24/09/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
В	30	24/09/24		None	No signs recorded	Optimal habitat	Latrine, burrow, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	31	26/09/23, 23/05/24		None	No signs recorded	Optimal habitat	Latrine, burrow, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
B	32	03/06/24				Sub-optimal habitat	Latrines, burrows, feedi station	Confirmed ng presence
В	33	03/06/24, 25/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	34	04/06/24, 25/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
В	35	26/09/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
В	36	04/06/24, 25/09/24		None	No signs recorded	Optimal habitat	Considered absent: no further survey required	Confirmed absence
В	37	26/09/23, 04/06/24		None	No signs recorded	Optimal habitat	Latrine, feeding stations	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	38	05/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
В	127	21/05/24, 14/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	128	22/05/24, 13/08/24		None	No signs recorded	Poor habitat	Latrine, burrow	Confirmed presence
В	129	22/05/24, 13/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
В	131	22/05/24, 13/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	132	20/06/24, 31/10/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
В	133	23/05/24, 24/09/24		None	No signs recorded	Sub-optimal habitat	Latrine, burrows, feeding station.	Confirmed presence
В	134	24/09/24		None	Confirme d absence	Optimal habitat	Latrine, burrows, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	135	24/09/24		None	Confirme d absence	Optimal habitat	Latrine, burrows, feeding station	Confirmed presence
В	136	04/06/24, 25/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
В	137	04/06/24, 17/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	138	17/09/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
В	254	16/10/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
С	39	26/09/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	41(a)	19/06/24		Spraint	Confirme d presence	Sub-optimal habitat	Sighting, latrine, feeding station	Confirmed presence
С	41(b)	10/08/23, 19/06/24		, None	No signs recorded	Optimal habitat	Potential feeding stations	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	42	19/06/24, 26/09/24		No signs at this location but otter signs identified further along this river at watercourse 41(a).	d presence	Optimal habitat	Latrine, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	45	20/06/24, 18/09/24		Spraints	Confirme d presence	Poor habitat	Considered absent: no further survey required.	Confirmed absence
С	46	18/09/24		None	No signs recorded	Poor habitat	None	Unknown (1 survey)
C	139	05/06/24, 17/09/24				Sub-optimal habitat	Latrines, burrow	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	140	17/09/24				Poor habitat	None	Unknown (1 survey)

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
С	141	05/06/24, 26/09/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
С	142	05/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
С	143	06/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
С	144	06/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
C	145	05/06/24, 26/09/24				Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
С	146	06/06/24, 26/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
С	147	06/06/24, 26/09/24		None	No signs recorded		Considered absent: no further survey required	Confirmed absence
С	148	19/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
С	150	20/06/24, 18/09/24		None	No signs recorded	Sub-optimal habitat	Potential feeding station	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	151	20/06/24, 18/09/24		Spraint, feeding remains	Confirme d presence	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
С	483	06/06/24, 26/09/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	47	20/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
D	48	20/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required.	Confirmed absence
D	49	20/06/24, 18/09/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required.	Confirmed absence
D	50	19/06/24		None	No signs recorded	Poor habitat	None	Unknown (1 survey)
D	51	10/08/23	No photo	None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	52	11/08/23, 20/06/24		None	No signs recorded	Poor habitat	Potential burrow, footprints	Potential presence
D	53	11/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	54	26/09/23, 13/05/24		Spraint, potential otter path	Confirme d presence	Optimal habitat	Potential burrows	Potential presence
D	55	14/05/24, 12/08/24	No photo.	Otter spraint.	Confirme d presence	Optimal habitat	Considered absent: no further survey required	Confirmed absence
D	56	19/06/24, 19/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	57	14/05/24.		None	No signs recorded	Sub-optimal habitat	None	Unknown (1 survey)
D	58	14/05/24, 13/08/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
D	59	14/05/24, 13/08/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	60	14/05/24, 13/08/24		Spraint	Confirme d presence	Optimal habitat	Potential footprints	Potential presence
D	153	20/06/24		None	No signs recorded		Considered absent: no further survey required	Confirmed absence
D	154	20/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
D	155	19/06/24, 19/09/24		None	Confirme d presence	Poor habitat	Considered absent: no further survey required	Confirmed absence
D	183	29/08/24				Optimal habitat	Latrine, burrow	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
E	61	14/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
E	62	17/08/23 15/05/24				Optim	al habitat Poten burrov	

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
E	64	17/08/23, 18/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
E	66	18/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
E	67	15/05/24, 13/08/24		Potential otter feeding remains	Potential presence		Considered absent: no further survey required	Confirmed absence
E	68	17/08/23, 15/05/24		Potential slide, grooming area	Potential presence	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
E	69	18/08/23		None	No signs recorded		Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water V Presence	
E	71	16/05/24, 14/08/24		None	No signs recorded	Sub-optimal habitat	Potential feeding stations	Potential presence	
E	156	15/05/24, 13/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirme	
E	157	15/05/24, 14/08/24		Spraint	Confirme d presence	Optimal habitat	Considered absent: no further survey required	Confirme absence	
Е	385	N/A					Unsuitable habitat	N/A	N/A

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
E and F	72	16/05/24, 14/08/24		None	No signs recorded	Sub-optimal habitat	Potential burrows	Potential presence
F	73	28/09/23, 16/05/24		None	No signs recorded	Optimal habitat	Potential footprints, feeding stations	Potential presence
F	74	16/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	75	16/05/24, 15/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
F	76	20/05/24, 15/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
F	78	20/05/24, 15/08/24				Optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	79	21/05/24		Spraint, footprint.	Confirme d presence	Optimal habitat	Latrine, feeding station	Confirmed presence
F	80	21/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	81	09/04/24, 28/08/24		Otter spraints identified	Confirme d presence	Sub-optimal habitat	Potential footprints	Potential presence
F	82	17/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	83	17/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	84	17/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	85	21/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	86	21/05/24, 28/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	87	18/08/23, 22/05/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
F	88	18/08/23		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	89	18/08/23, 22/05/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
F	90	22/05/24, 28/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
F	91	22/05/24, 28/08/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence
F	160	17/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
F	161	17/05/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	181	28/08/24		None	No signs recorded	Optimal habitat	None	Unknown (1 survey)
G	93	23/05/24, 10/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
G	94	23/05/24, 10/09/24		Sighting, spraint, footprint	Confirme d presence	Optimal habitat	Considered absent: no further survey required	Confirmed absence
G	95	23/05/24, 10/09/24		None	No signs recorded	Sub-optimal habitat	Potential feeding station	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
G	97	24/05/24, 11/09/24				Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence
G	98	24/05/24, 11/09/24				Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
G	99	03/06/24, 29/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
G	100	03/06/24, 29/08/24		None	No signs recorded	Sub-optimal habitat	Potential burrows, feeding stations	Potential presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
G	102	04/06/24, 29/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
G	103	04/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
G	163	11/09/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
G and H	165	11/09/24		None	No signs recorded	Sub-optimal habitat	None	Unknown (1 survey)
Н	105	06/06/24, 16/08/24		None	No signs recorded	Sub-optimal habitat	Potential footprints	Potential presence
Н	106	06/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
Н	107	06/06/24, 29/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
Н	108	07/06/24	None	None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
Н	166	05/06/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Table A8.13.10 Otter holts or resting places

Project Section	ID	Watercourse ID	Approximate Grid Reference	Images	Туре	Otter Evidence	Description

Project Section	ID	Watercourse ID	Approximate Grid Reference	Images	Туре	Otter Evidence	Description
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Project Section	ID	Watercourse ID	Approximate Grid Reference	Images	Туре	Otter Evidence	Description

Project Section	ID	Watercourse ID	Approximate Grid Reference	Images	Туре	Otter Evidence	Description

## Annex C. Otter and Water Vole Survey Results for Watercourses Which are No Longer Impacted

Table A8.13.11 Otter and water vole survey results for watercourses no longer impacted

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
A	177	21/05/24, 14/08/24		Potential footprint	Potential presence	Sub-optimal habitat	Potential feeding stations, footprints	Potential presence
В	23	09/08/23	N/A	N/A	No signs recorded	Unsuitable habitat. No longer affected due to design change	N/A	Confirmed absence
В	24	22/05/24, 13/08/24		None	No signs recorded	Sub-optimal habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
В	26	09/08/23, 22/05/24		None	No signs recorded	Optimal habitat	Potential feeding stations	Potential presence
В	128(b)	22/05/24, 13/08/24		None	Confirmed absence	Sub-optimal habitat	Latrine	Confirmed presence
В	175	04/06/24		Unknown	No signs recorded	Optimal habitat	None found but watercourse is direct continuation of confirmed water vole ditch (37)	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
С	40	10/08/2023		None	No signs recorded	Poor habitat	None	Unknown (1 survey)
С	180	26/09/24		None	No signs recorded	Optimal habitat	Latrine, feeding station	Confirmed presence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
C	149	19/06/24, 18/09/24		Spraint, potential resting places	Confirmed presence	Sub-optimal habitat	Potential feeding station	Potential presence
C	331	15/10/24				Unsuitable habitat	Considered absent: no further survey required	Confirmed absence

Project Section	Watercourse ID	Survey Dates	Image	Otter Field Signs Observed	Otter Presence	Water Vole Habitat suitability	Water Vole Field Signs Observed	Water Vole Presence
С	332	22/10/24		None	No signs recorded	Poor habitat	None	Unknown (1 survey)
E	158	15/05/24, 14/08/24		None	No signs recorded	Unsuitable habitat	Considered absent: no further survey required	Confirmed absence
F	399	14/10/24. 2 <sup>nd</sup> visit planned for 2025.		None	No signs recorded	Sub-optimal habitat	None	Unknown (1 survey)
Н	167	17/06/24, 12/09/24		None	No signs recorded	Poor habitat	Considered absent: no further survey required	Confirmed absence

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