

The Great Grid Upgrade

Proposed Electricity Substation and Overhead Line Works at Weston Marsh

Arboricultural Impact Assessment

June 2026

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Proposed Electricity Substation and Overhead Line Works at Weston Marsh

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1. Introduction

1.1 Overview

- 1.1.1. This Arboricultural Impact Assessment (AIA) has been prepared on behalf of National Grid Electricity Transmission plc (National Grid).
- 1.1.2. National Grid are proposing to undertake works to construct a new electricity substation, new sections of overhead line and modification of existing overhead lines west of the Spalding Tee-Point in the Weston Marsh area, within the administrative boundary of South Holland District Council in Lincolnshire.

1.2 Summary of the Scheme

- 1.2.1. In totality, the Scheme consists of four components, each planned to be progressed via separate consenting routes. These are summarised in **Table 1.1**.

Table 1.1 Components of the Scheme

Works Required	Consenting Regime
Construction of the new Air Insulated Substation (AIS) – 400 kV Weston Marsh Substation A, associated landscaping and environmental mitigation works, drainage, highways and other associated works	Town and Country Planning Act 1990 (TCPA) (Ref 1) Component referred to as ' Substation Works '
Construction of new sections of overhead line to connect the new Substation Works into the existing 4ZM overhead line Removal of a section of the existing 4ZM overhead line Other associated works	Section 37 of the Electricity Act 1989 (Ref 2) and deemed consent pursuant to section 90(2) of the Town and Country Planning Act 1990 Component referred to as ' S37 4ZM Overhead Line Works '
Construction of a new section of overhead line to connect the existing 2WS overhead line into the Substation Works. Removal of a section of the existing 2WS overhead line Other associated works	Section 37 of the Electricity Act 1989 and deemed consent pursuant to section 90(2) of the Town and Country Planning Act 1990 Component referred to as ' S37 2WS Overhead Line Works '
Reconductoring works required on the existing 4ZM overhead line Two spans of temporary overhead lines	The Town and Country Planning (General Permitted Development) (England) Order 2015 (Ref 3) and The Overhead Lines (Exemption) (England and Wales) Regulations 2009 (Ref 4). Component referred to as ' Exempt Overhead Line Works '

- 1.2.2. The Substation Works will require consent from SHDC under the TCPA.
- 1.2.3. The S37 4ZM Overhead Line Works and S37 2WS Overhead Line Works (collectively referred to as ‘the S37 Overhead Line Works’) will require consent from the Secretary of State for Energy Security and Net Zero under Section 37 of the Electricity Act 1989 (Section 37).
- 1.2.4. The Exempt Overhead Line Works constitute permitted development under Part 15 Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 and The Overhead Lines (Exemption) (England and Wales) Regulations 2009.
- 1.2.5. The Scheme Site Boundary, which consists of the land required to construct and operate the Scheme in its entirety, is illustrated on **Figure 1**. The areas of land required to construct and operate each individual component described in **Table 1.1** and also illustrate on **Figure 1**.
- 1.2.6. The Scheme in its totality is a standalone development to enable connection of the Outer Dowsing Offshore Wind Farm to the national electricity transmission system. Each component stated in **Table 1.1** is required for the Scheme to fully function as part of the National Electricity Transmission System (NETS).

1.3 Purpose of this report

- 1.3.1. This assessment has been prepared in support of the necessary consent applications required to deliver the Scheme. It has been informed by engagement between National Grid and the relevant consenting authorities.
- 1.3.2. The assessment considers the Scheme in its entirety. Where the potential impacts and effects of the Scheme are associated with specific components as set out within **Table 1.1**, this is clearly identified within the following sections. This approach enables the relevant consenting authority to readily identify and consider only those impacts and effects that are associated with the application before them, whilst also maintaining a clear understanding of the Scheme in its wider context.
- 1.3.3. The purpose of this report is to identify all trees which have the potential to be affected by the Scheme, assess the impact of the Scheme on those trees, and to present protection measures as are necessary to ensure the health of retained trees.

2. Legislative and Policy Framework

2.1 Overview

- 2.1.1. Legislation and national and local planning policy relevant to the Scheme and this AIA is described in further detail in the Planning, Design and Access Statement (TCPA application) and Section 37 Statement (S37 applications). Key legislation and policy relevant to the arboricultural impact assessment is summarised in the following sections.

2.2 Legislation and National Policy

Town and Country Planning Act 1990

- 2.2.1. The TCPA sets out the general duties of Local Planning Authorities in relation to tree preservation and planting of trees (s197).
- 2.2.2. Section 198 outlines the power of Local Planning Authorities to make tree preservation orders (TPOs), noting that if *'it appears to a local planning authority that it is expedient in the interests of amenity to make provision for the preservation of trees or woodlands in their area, they may for that purpose make an order with respect to such trees, groups of trees or woodlands as may be specified in the order.'*

Town and Country Planning (Tree Preservation) (England) Regulations 2012

- 2.2.3. Section 5 of the Town and Country Planning (Tree Preservation) (England) Regulations 2012 (Ref 5) outlines the framework to local authorities for the creating and enforcing of TPOs in England. It specifies that any order must include details about the trees, groups of trees, or woodlands it protects, and must specify the location of the features on a map. The order must also include information on the consent required for any works to the protected trees.

National Planning Policy Framework

- 2.2.4. The National Planning Policy Framework (NPPF) as revised in December 2024 and further amended on 7 February 2025 (Ref 6) sets out national planning policies that reflect priorities of the Government of the operation of the planning system and the economic, social and environmental aspects of the development and use of land in England. The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development.
- 2.2.5. Paragraph 136 notes that:
'Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to

secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.'

- 2.2.6. Paragraph 187 notes that planning policies and decisions should contribute to and enhance the natural and local environment by:

'[...]

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; [...]

- 2.2.7. Paragraph 193 notes that when determining planning applications, local planning authorities should apply the principle that:

'[...]

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; [...].'

2.3 Regional and Local Policy

- 2.3.1. This assessment considers the following local policy:

- 1) South East Lincolnshire Local Plan 2011-2036 (Adopted March 2019) (Ref 7):

- a) Policy 28 states that it will address gaps in the ecological network, by ensuring that all development proposals shall provide an overall net gain in biodiversity, by *'protecting the biodiversity value of land, buildings and trees (including veteran trees) minimising the fragmentation of habitats.'*

2.4 British Standards Institute. BS 5837: 2012 Trees in relation to design, demolition and construction

- 2.4.1. The British Standard BS 5837 (Ref 8) gives recommendations relating to the relationship between trees and design, demolition and construction processes. It sets out principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and development and is applicable whether or not planning permission is required.

- 2.4.2. The key elements of the recommendations include:

- 1) **An Arboricultural Walkover Survey:** trees are surveyed by a competent arboriculturist and categorised according to their quality and value (Categories A (high quality), B (moderate quality), C (low quality) and U (very low quality or unsuitable for retention));
- 2) **Root Protection Areas (RPAs):** the standard defines a method for calculating RPAs to identify the minimum area around each retained tree that should be

protected from construction-related damage. For the purpose of this AIA Category C features have been assigned a RPA of 3m;

- 3) **Design considerations:** development layouts should be informed by tree constraints at an early stage, with high quality features given appropriate space to ensure their long-term retention; and
- 4) **Arboricultural Impact Assessment:** where developments are proposed near arboricultural features, the standard recommends assessing likely impacts on retained trees and any removals necessary for the development are identified.

2.5 The Holford Rules

2.5.1. The Holford Rules (Ref 9) are a set of planning principles used to guide the routing of overhead electricity transmission lines to minimise impacts on landscape character, visual amenity, and areas of high environmental or cultural value.

2.5.2. The following rules are relevant to this AIA:

- 1) Rule 1: *'Avoid altogether, if possible, the major areas of highest amenity value, by so planning the general route of the first line in the first place, even if the total mileage is somewhat increased in consequence' and*
- 2) Rule 2: *'Avoid smaller areas of high amenity value, or scientific interests by deviation; provided that this can be done without using too many angle towers, ie the more massive structures which are used when lines change direction.'*

3. Methodology

3.1 Scope of the Assessment

- 3.1.1. The purpose of this assessment is to identify all trees which have the potential to be affected by the Scheme, assess the preliminary impact of the Scheme on those trees, and to present protection measures as are necessary to ensure the health of retained trees.
- 3.1.2. The scope and level of detail included within this assessment is commensurate with that required for the adequate consideration of arboricultural features. In this assessment, arboricultural features are defined as individual trees or groups. For clarity, groups are made up of multiple trees, woodlands and hedgerows, and are shown on plans as polygon shapes or polylines as set out in **Figure 2**.
- 3.1.3. Information provided complies with the requirements of British Standard 5837: 2012 Trees in relation to design, demolition and construction – Recommendations (Ref 8) and includes reference to the following:
- 1) Desk study (results included within **Appendix B**): A desk-based review undertaken to identify relevant arboricultural statutory constraints, to establish any legal and planning context regarding trees and to inform design;
 - 2) Results of a BS5837 walkover survey (included within **Appendix C**): Where trees are surveyed by a competent arboriculturist and categorised according to their quality and value (Categories A (high quality), B (moderate quality), C (low quality) and U (very low quality or unsuitable for retention));
 - 3) An AIA (included within **Section 5** of this report): Where developments are proposed near arboricultural features, the likely impacts on retained trees have been assessed and any removals necessary for the development are identified;
 - 4) Tree Survey Schedule (shown on **Table C.1** Tree Schedule within **Appendix C**): The survey data is presented in a clear and structured tabular format as recommended within BS5837, to allow arboricultural information to be easily cross-referenced with plans;
 - 5) Tree Constraints and Impacts Plan (including removals) (shown on **Figure 2** Tree Constraints and Impacts Plan): This is required to illustrate the location of trees and their RPAs, and how the proposed development interacts with these features.
- 3.1.4. Impacts are defined as arboricultural removals and matters that need to be addressed within an Arboricultural Method Statement (AMS). This will be prepared based upon the detailed design of the Scheme in support of the final Construction Environment Management Plan (CEMP).

3.2 Arboricultural Study Area

- 3.2.1. The assessed area has been informed by the extent of Scheme Site Boundary plus a buffer area of up to 30 m (Study Area) to account for potential impacts upon root zones adjacent to the Scheme Site Boundary. While BS5837 caps the RPA radius at 15 m, the Study Area of up to 30 m has been applied to capture the RPAs of veteran trees (Section 2.2.6).

3.3 Baseline Data Collection

- 3.3.1. Baseline data collection has been undertaken with reference to BS5837:2012 (Ref 8) and has been undertaken using the following key information sources:
- 1) An arboricultural desk study, referencing publicly available documents provided by Local Planning Authorities, and other public entities; and
 - 2) A baseline survey of arboricultural features within the Study Area.

3.4 Limitations and Assumptions

- 3.4.1. TPOs may be made whenever a Local Planning Authority deems it appropriate with only those persons interested in the land served with a copy of the Order (Section 2.2.2 and 2.2.3). Because of this, any reference to the presence of TPOs is only valid on the date at which the desk study was undertaken. The desk study was completed in February 2026.
- 3.4.2. Trees are influenced by a variety of environmental variables and their health and condition can rapidly change. Because of this, any recommendations made within this assessment are valid for a period of 24 months from the date of survey, when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject trees, whichever is the sooner.
- 3.4.3. This assessment does not constitute a health and safety survey. Where concerns for health and safety from trees exist then necessary and appropriate tree inspections should be undertaken.
- 3.4.4. This report has been produced in accordance with and with reference to current design information shown on **Figure 2**.
- 3.4.5. Where access to vegetation was restricted, stem diameter dimensions have been estimated as indicated by the 'e' suffix attributed to the stem diameter value provided in **Appendix C**.

4. Baseline

4.1 Desk Study

4.1.1. A desk study was undertaken in February 2026 to identify specific statutory and non-statutory arboricultural constraints which may apply to arboricultural features within the Study Area. The desk study review, as outlined in **Appendix B**, was undertaken to establish the following statutory and non-statutory arboricultural constraints:

- 1) TPOs;
- 2) Traditional orchards;
- 3) Ancient woodland; and
- 4) Veteran trees.

4.2 Baseline Survey

4.2.1. A survey of trees within the Study Area was undertaken between 20 and 22 January 2026. The survey was undertaken taking account of BS 5837:2012 (Ref 8), details of the method used are presented in **Appendix A**.

4.3 Arboricultural Survey Findings

Desk Study Findings

4.3.1. The following arboricultural features have been identified through the desk study within the Study Area:

- 1) One group of trees under TPO;
- 2) No areas of ancient woodland were identified; and
- 3) No veteran trees were identified.

4.3.2. The group of trees under TPO, shown as G3 on **Table C.1**, are outlined within **Appendix B** Table B.1, and the location of G3 and how it interacts with the Scheme is shown on **Figure 2**. The G3 group of trees would be unaffected by the Scheme.

Baseline Survey Findings

4.3.3. The arboricultural survey identified a total of 45 features within the Study Area, comprising 10 individual trees, 30 groups, and five hedges.

4.3.4. Category A (high quality) features were limited to two individual trees, with no groups or hedges represented. Category B (moderate quality) features were more numerous, totalling 21 records and largely consisting of groups (18), alongside a small number of individual trees (three). Category C (low quality) features totalled

22 and included a broader mix of feature types, comprising five individual trees, 12 groups, and all five recorded hedges. These features are presented on **Figure 2**.

4.3.5. A summary of tree quality categories identified within the Study Area is detailed in **Table 4.1**.

Table 4.1 Summary of BS 5837 arboricultural features identified within the Study Area

BS 5837 Category	Quality	Individual Trees	Groups	Hedges	Total
Category A	High	2	0	0	2
Category B	Moderate	3	18	0	21
Category C	Low	5	12	5	22
Total	-	10	30	5	45

4.3.6. Tree survey data is presented on **Table C.1** within **Appendix C** and shown on **Figure 2**.

5. Arboricultural Impact Assessment

5.1 Arboricultural Features to be Impacted

- 5.1.1. The results of the impact assessment on arboricultural features identified within the Study Area is provided within **Table 5.1**.
- 5.1.2. In this report, arboricultural features are defined as individual trees, hedges, or groups, shown on plans as polygon shapes or polylines.

Table 5.1 Impacts on arboricultural features

Feature	Removed	Partially Removed	Total
Hedges	0	1	1
Groups	3	5	8
Total	3	6	9

- 5.1.3. Two moderate quality features (G1, G18) (i.e. Category B), and seven low quality features (H1, G2, G5, G11, G12, G13, G30) (i.e. Category C) are required for removal or partial removal.
- 5.1.4. Removals and partial removals have been identified due to construction works occurring within the RPAs of these features.

5.2 Other Potential Arboricultural Impacts

- 5.2.1. Other potential arboricultural impacts result from activities that do not require the direct removal of the tree, but have the potential, without mitigation, to cause damage to retained arboricultural features. **Table 5.2** provides the potential cause of damage of features and mitigatory measures which are proposed. Implementation of the recommended mitigation measures in **Table 5.2** would ensure that arboricultural features are retained without significant loss of value or a notable reduction in tree health or longevity.

Table 5.2 Other potential arboricultural impacts, likely effects and proposed mitigation measures

Feature	Cause of Impact	Likely Effect	Mitigation Measures
All potentially affected /unaffected retained features.	Earthworks and use of machinery associated with the construction.	Significant encroachment of RPAs possibly severing feeder	Bespoke mitigation measures would be specified following detailed design by the

Feature	Cause of Impact	Likely Effect	Mitigation Measures
		<p>and/or structural roots as well as disturbing soil composition and reducing the available rooting area.</p> <p>Significant encroachment of canopy area possibly requiring canopy reduction which would reduce photosynthesising capability and create stress that may cause a decline in tree health.</p> <p>Significant below or above ground impacts described above is likely to cause the decline and ultimate death of trees if not appropriately mitigated.</p>	<p>Main Works Contractor(s). These may include one or a combination of the following:</p> <p>Design refinements to avoid or reduce encroachment, micro-siting, working from track side, hand digging.</p> <p>'No dig' solutions such as geocellular ground protection and protective fencing.</p> <p>Where works within an RPA are required, supervision of the works to be conducted by an Arboricultural Clerk of Works (ArbCoW) and any additional recommendations to be followed.</p>
All potentially affected /unaffected retained features	Working space requirements during construction (below ground impact).	<p>Soil compaction and root damage for construction working space requirements.</p> <p>Loss of vitality and decline in health.</p> <p>Reduction in quality of trees/potential death of trees.</p>	<p>Where practicable, establish a construction exclusion zone (CEZ) within an AMS and implement for the duration of construction which is demarcated by tree protection fencing.</p> <p>Where access only is required temporary ground protection measures would be installed to prevent soil compaction and root damage.</p> <p>Where works within an RPA are required, supervision of the works to be conducted by an ArbCoW and any additional</p>

Feature	Cause of Impact	Likely Effect	Mitigation Measures
All potentially affected /unaffected retained features	Working space requirements during construction (above ground impact).	Injurious contact with above ground elements of retained trees (i.e. mechanical damage via construction plant contact). Loss of vitality and decline in health. Reduction in quality of trees/potential death of trees.	recommendations to be followed. Establish a CEZ within an AMS and implement for the duration of construction and arboricultural supervision during construction near trees. Requirements for pruning to avoid injurious contact are to be determined with arboricultural supervision by an ArbCoW prior to commencing all activities.

5.2.2. Whilst existing trees would be lost as a result of the Scheme, as illustrated on the Indicative Landscape and Ecological Mitigation Proposals tree planting is proposed as part of the Scheme. The specific number of trees to be planted is subject to completion of the detailed design. The choice of species are holistically selected to reflect those which are already in the local landscape and to be suitably varied to build in resilience, in the event of pests and diseases affecting the area.

6. Summary and Conclusions

6.1 Desk Study Summary

6.1.1. The desk study identified within the Study Area there were:

- 1) One group of trees under TPO; and
- 2) No ancient woodlands, veteran trees, or traditional orchards.

6.2 Field-based Surveys Summary

6.2.1. Field-based surveys of arboricultural features within the Study Area were undertaken between 20 and 22 January 2026. Surveys identified 45 arboricultural features of varying quality, consisting of 10 individual trees, 30 groups of trees, and five hedges. Of these, two were assessed as high quality, 21 assessed as moderate quality, and 22 assessed as low quality.

6.3 Arboricultural Impact Assessment Summary

6.3.1. To facilitate construction of the Scheme, three tree groups would require full removal, and one hedge and five tree groups would require partial removal.

6.3.2. No high quality arboricultural features require removal or partial removal (**Figure 2**).

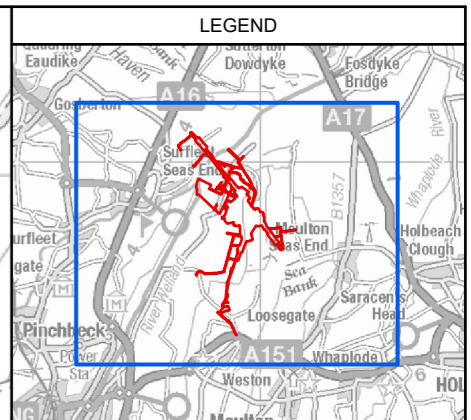
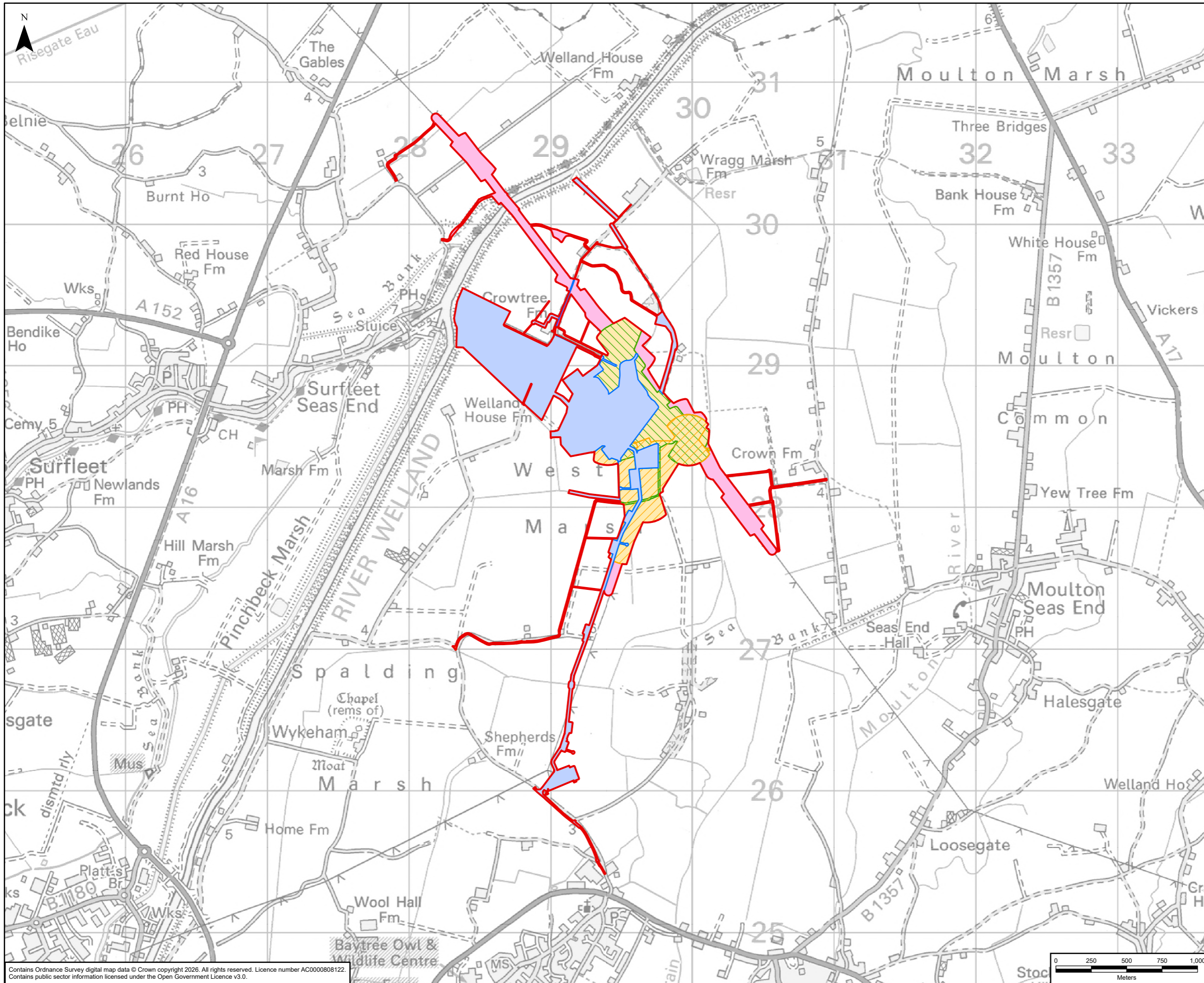
6.3.3. Two moderate quality features (i.e. Category B), and seven low quality features (i.e. Category C) are required for removal or partial removal.

References

- Ref 1 Town and Country Planning Act 1990. Available online: https://www.legislation.gov.uk/ukpga/1990/8/pdfs/ukpga_19900008_en.pdf [Accessed 30 April 2026].
- Ref 2 Electricity Act 1989. Available online: <https://www.legislation.gov.uk/ukpga/1989/29/contents> [Accessed 30 April 2026].
- Ref 3 The Town and Country Planning (General Permitted Development) (England) Order 2015. Available online: <https://www.legislation.gov.uk/uksi/2015/596/contents> [Accessed 30 April 2026].
- Ref 4 The Overhead Lines (Exemption) (England and Wales) Regulations 2009. Available online: <https://www.legislation.gov.uk/uksi/2009/640/contents/made> [Accessed 30 April 2026].
- Ref 5 The Town and Country Planning (Tree Preservation) (England) Regulations 2012. Available online: The Town and Country Planning (Tree Preservation) (England) Regulations 2012. [Accessed 30 April 2026].
- Ref 6 Ministry of Housing, Communities and Local Government (2024). National Planning Policy Framework. Available online: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf [Accessed 31 March 2026].
- Ref 7 South East Lincolnshire Local Plan 2011-2036, Adopted March 2019. Available at: <https://southeastlincslocalplan.org/article/20102/Adopted-Plan> [Accessed 19 March 2026].
- Ref 8 The British Standards Institution (2012) BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- Ref 9 National Grid. The Holford Rules: Guidelines on Overhead Line Routeing. [online] Available at: <https://www.nationalgrid.com/sites/default/files/documents/13795-The%20Holford%20Rules.pdf> [Accessed 23 April 2026].

Figures

Figure 1 Scheme Site Boundary



- LEGEND**
- Scheme Site Boundary
 - Substation Works Site Boundary
 - S37 OHL Works Site Boundary
 - Exempt Overhead Line Works Site Boundary
 - S37 - 4ZM - OHL Works Site Boundary
 - S37 - 2WS - OHL Works Site Boundary

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Purpose: ARBORICULTURAL IMPACT ASSESSMENT

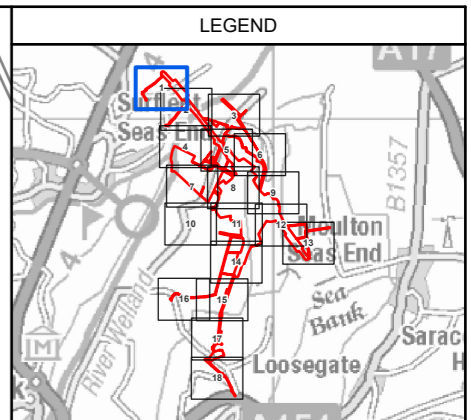
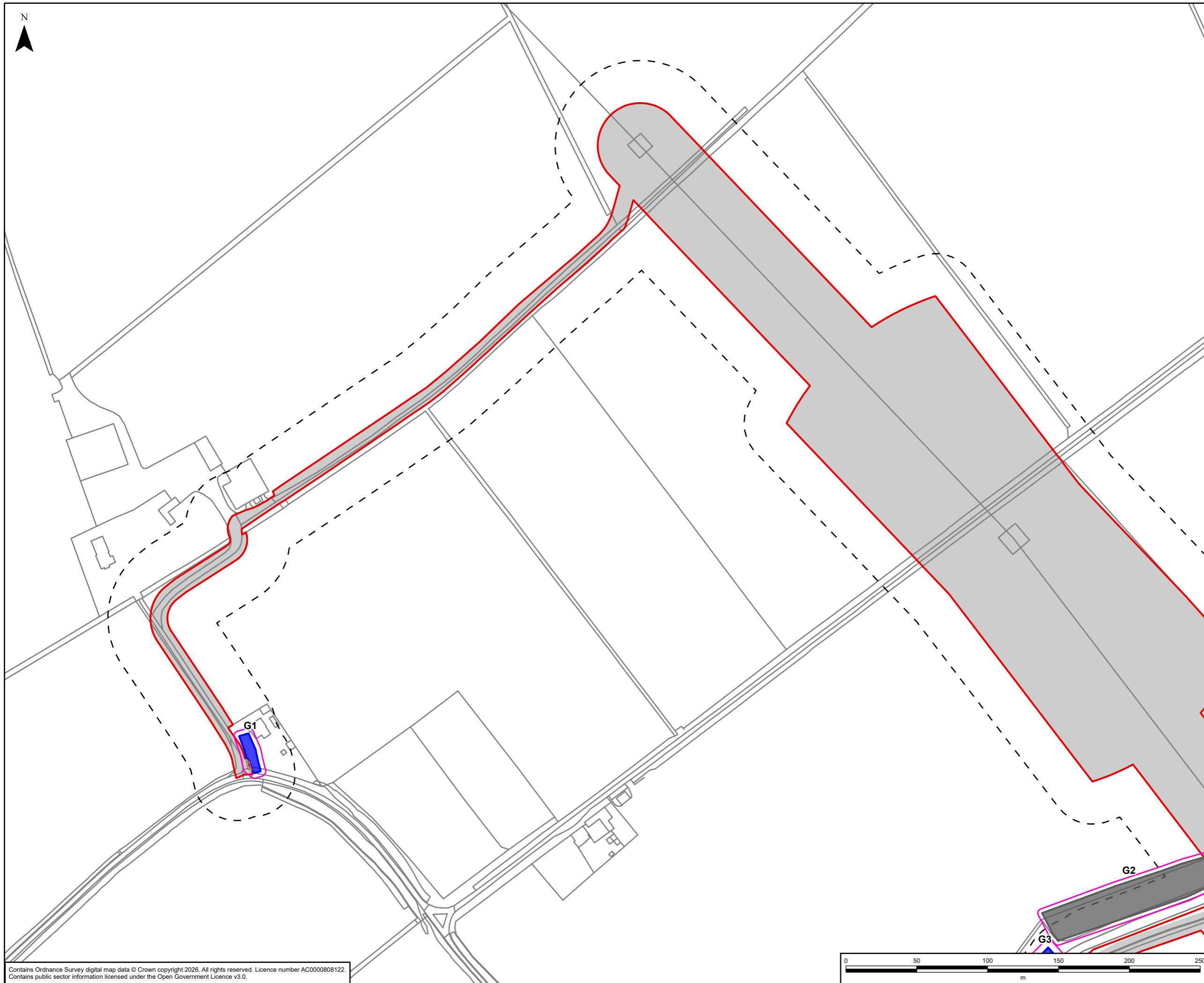
Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

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SCHEME SITE BOUNDARY**

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Figure 2 Tree Constraints and Impacts



- LEGEND**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Arboriculture Survey Results**
 - Indicative Root Protection Area (RPA)
 - Group of Trees - Category**
 - B
 - C
 - Removed

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A	06/05/2026	First Issue	MM	CR	JC

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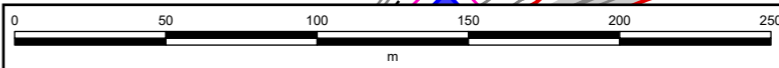
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Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

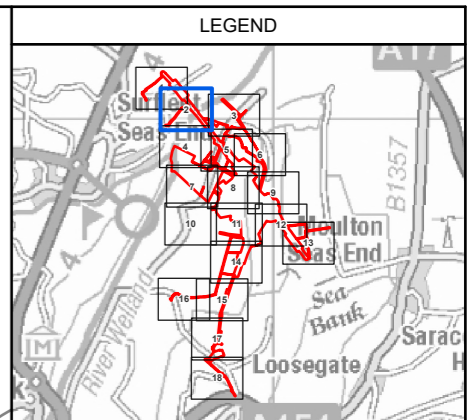
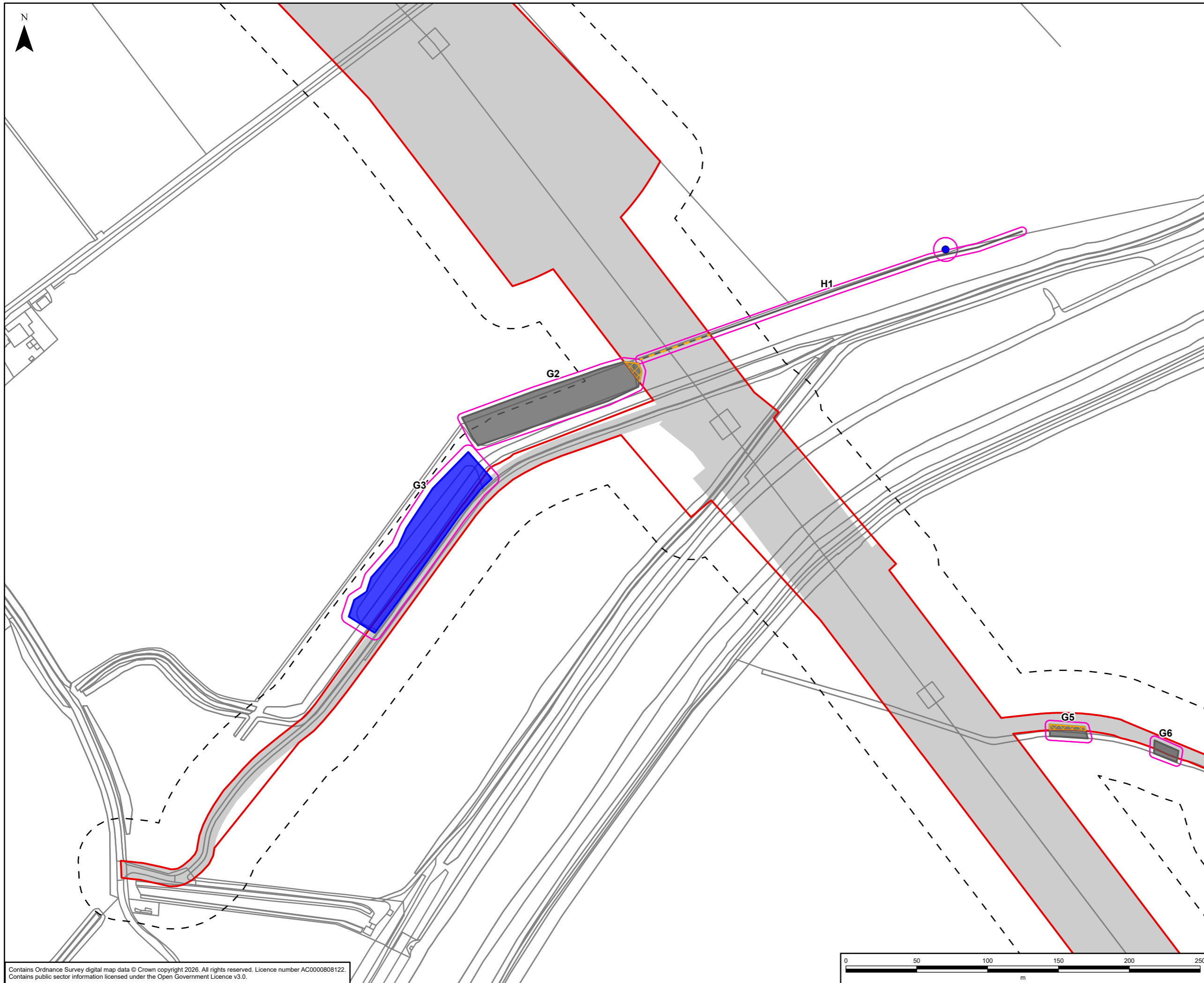
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TREE CONSTRAINTS AND IMPACTS**

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Legend

- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works

Arboriculture Survey Results

- Indicative Root Protection Area (RPA)

Tree - Category

- B

Line of Trees - Category

- C
- Removed

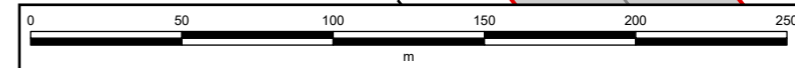
Group of Trees - Category

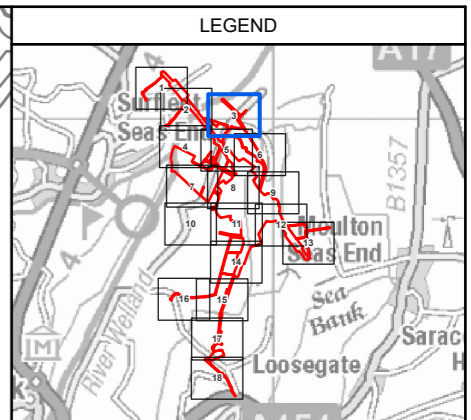
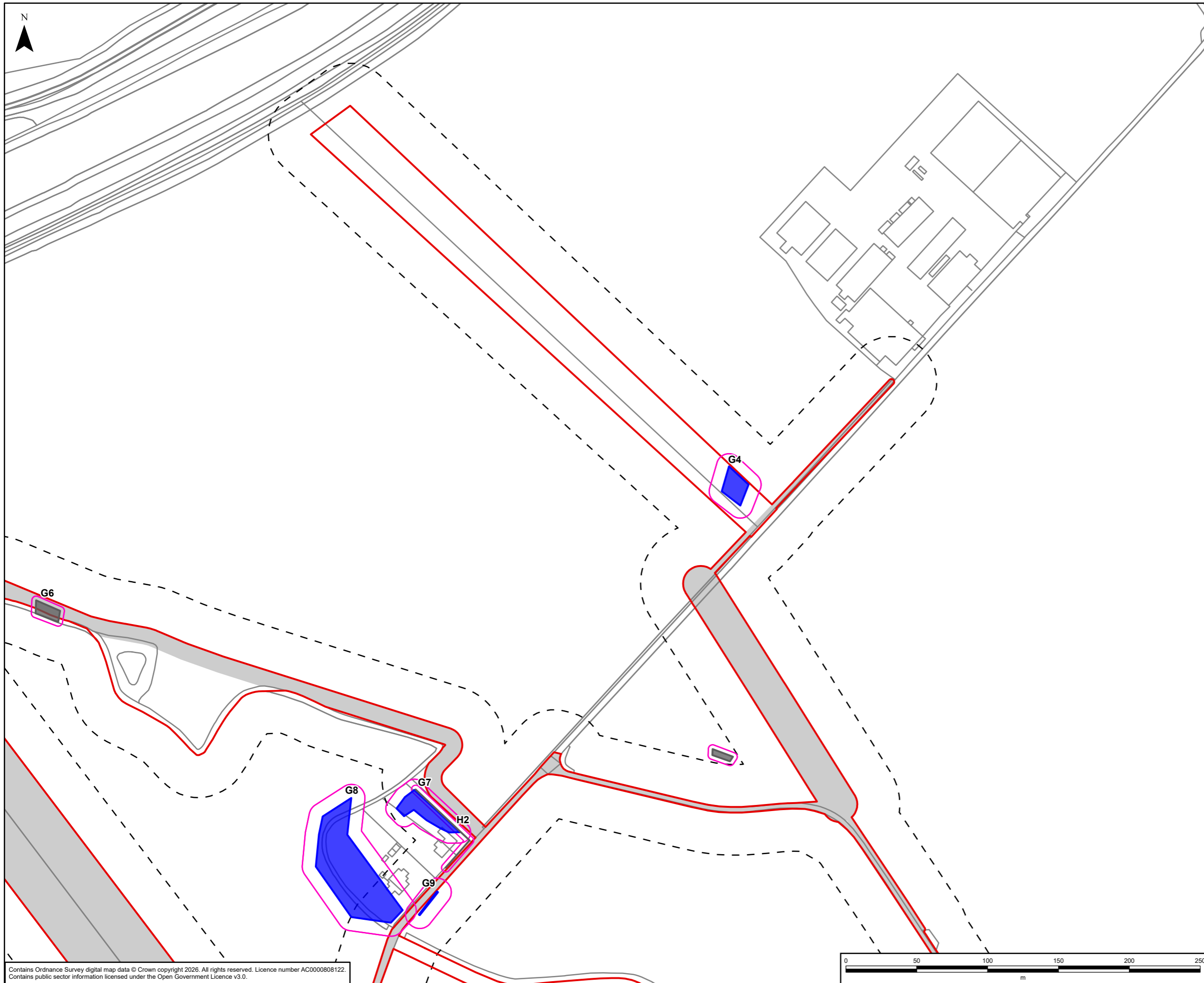
- B
- C
- Removed

A	06/05/2026	First Issue	MM	CR	JC
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nationalgrid					
Purpose: ARBORICULTURAL IMPACT ASSESSMENT					
Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH					
Document Title: FIGURE 2 TREE CONSTRAINTS AND IMPACTS					
Creator:	Date:	Checker:	Date:	Approver:	Date:
MM	06/05/2026	CR	06/05/2026	JC	06/05/2026
Document Type:	Scale:	Format:	Sheets:	Rev:	
FIGURE	1:2,500	A3	2 OF 18	A	

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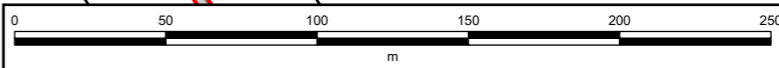


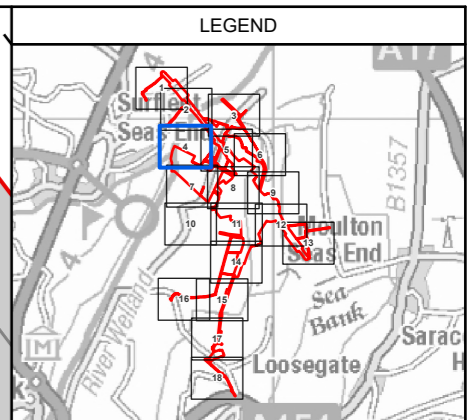
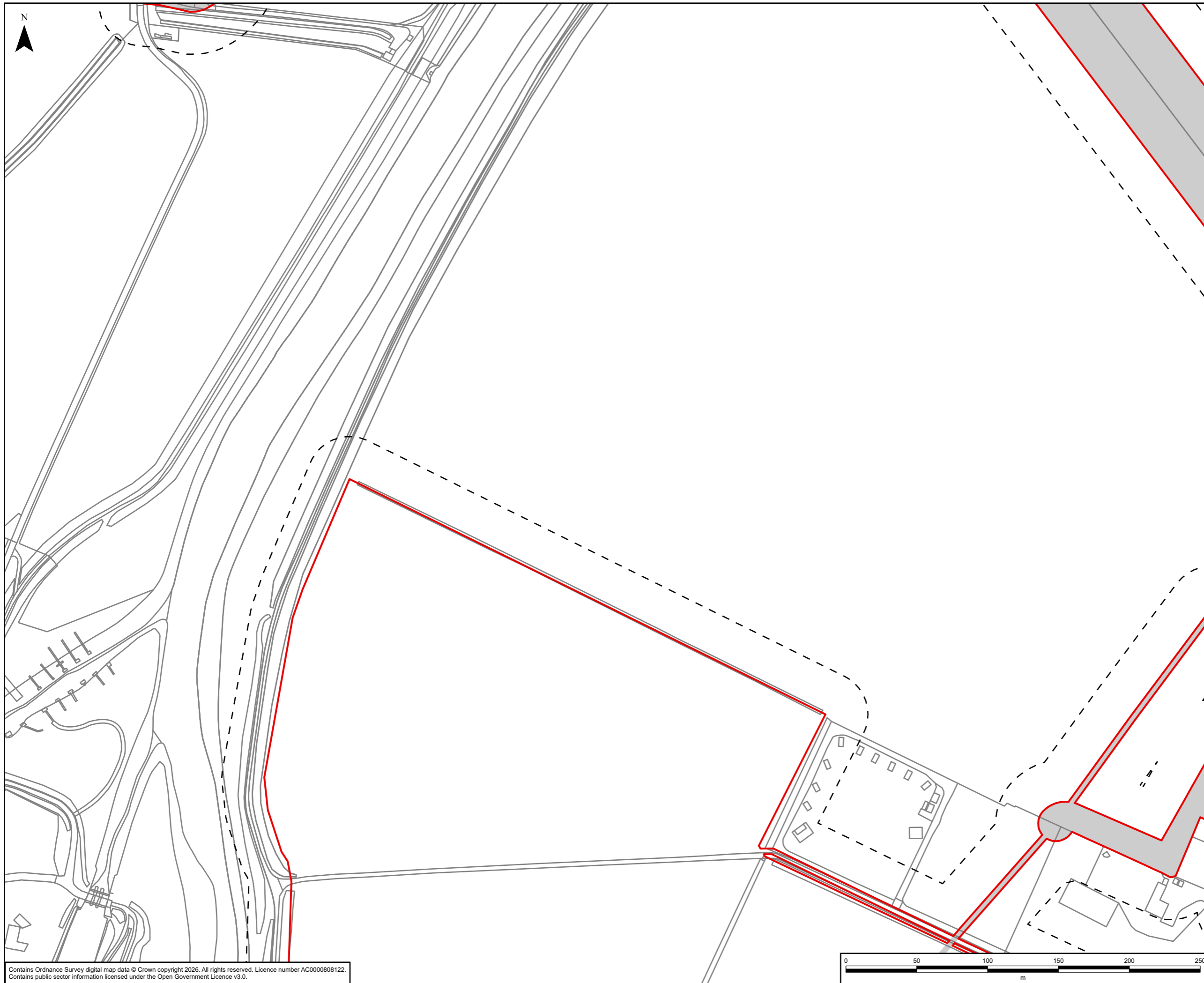
- LEGEND**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Indicative Root Protection Area (RPA)
 - Line of Trees - Category
 - C
 - Group of Trees - Category
 - B
 - C

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FIGURE	1:2,500	A3	3 OF 18	A	

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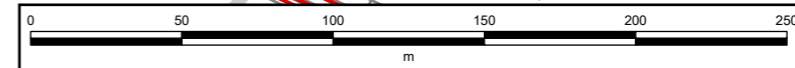
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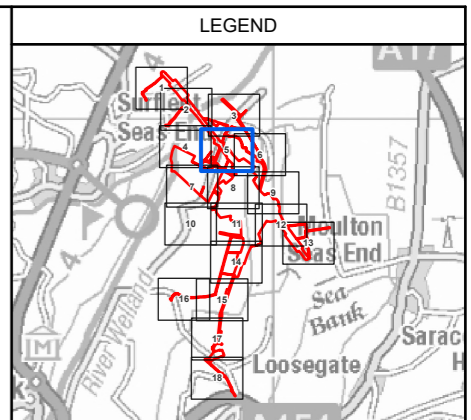
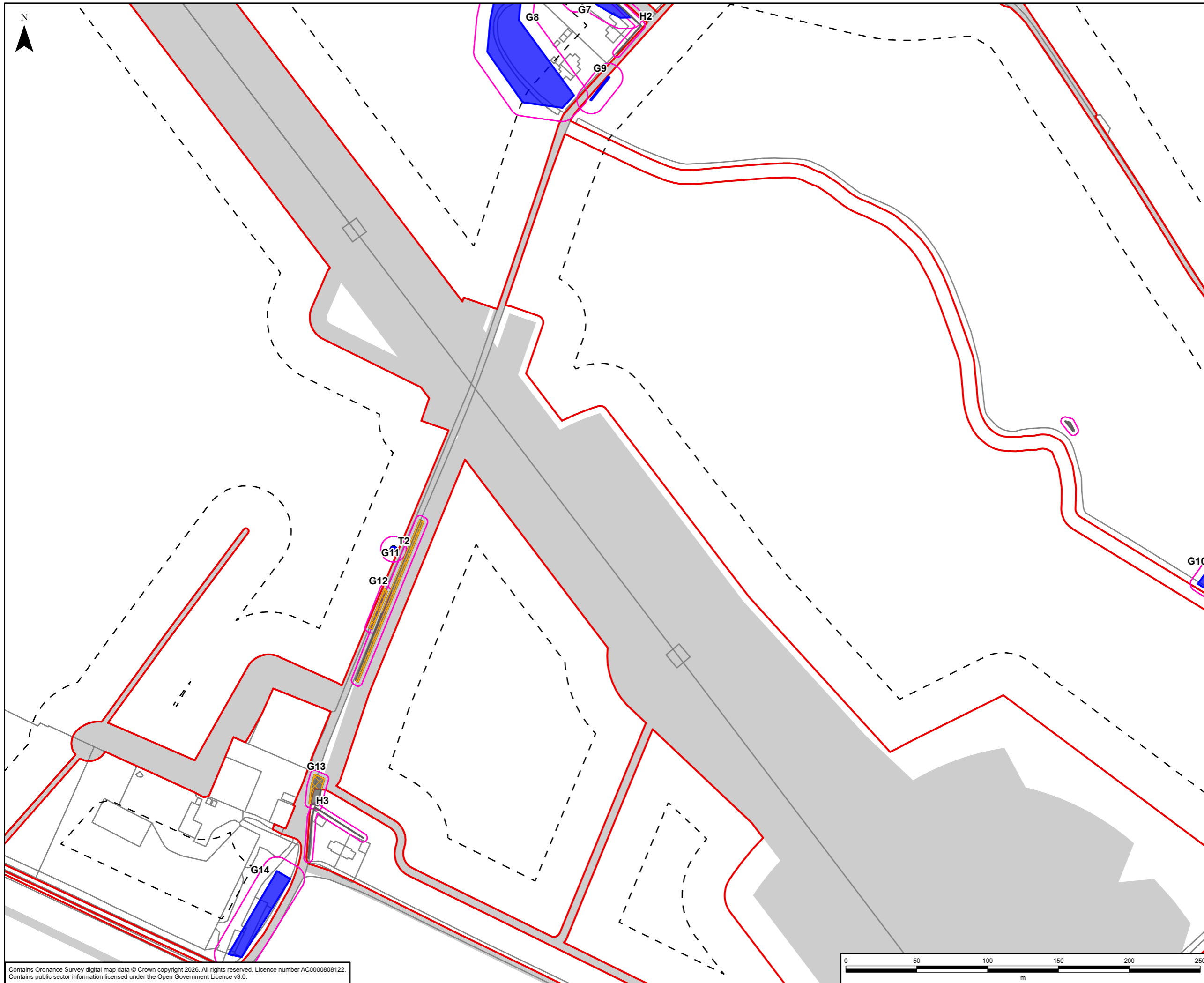
- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works
- Arboriculture Survey Results
- Indicative Root Protection Area (RPA)

Rev	Date	Description	GIS	Chk	App
A	06/05/2026	First Issue	MM	CR	JC

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MM	06/05/2026	CR	06/05/2026	JC	06/05/2026
Document Type:	Scale:	Format:	Sheets:	Rev:	
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LEGEND

Legend

- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works

Arboriculture Survey Results

- Indicative Root Protection Area (RPA)

Tree - Category

- B

Line of Trees - Category

- C

Group of Trees - Category

- B
- C
- Removed

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Rev	Date	Description	GIS	Chk	App

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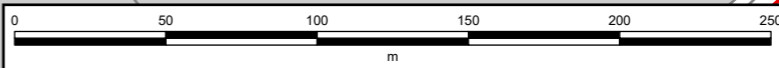
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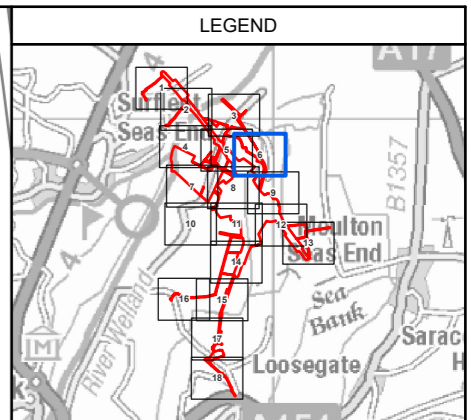
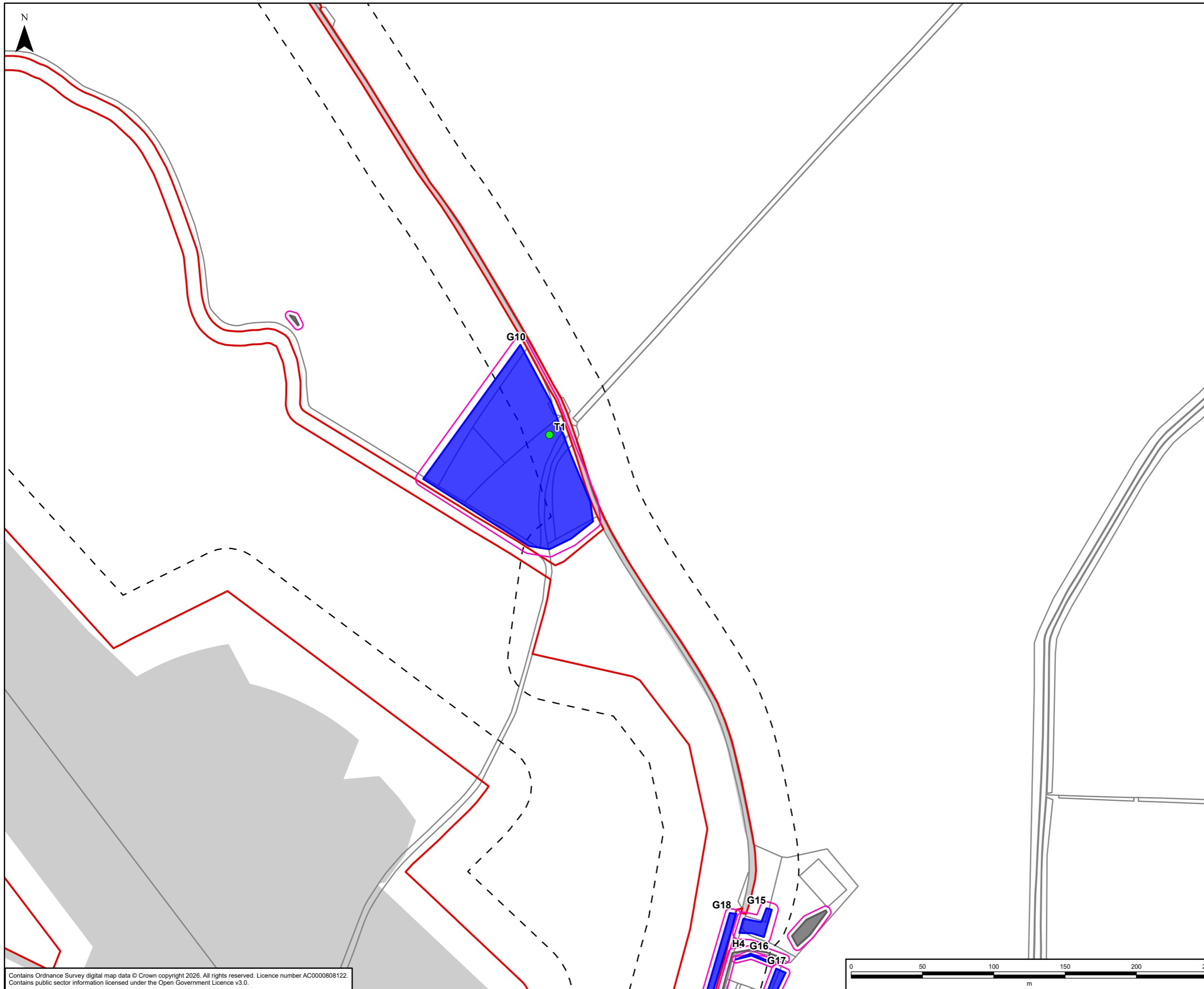
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TREE CONSTRAINTS AND IMPACTS**

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MM	06/05/2026	CR	06/05/2026	JC	06/05/2026
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FIGURE	1:2,500	A3	5 OF 18	A	

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LEGEND

Legend

- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works

Arboriculture Survey Results

- Indicative Root Protection Area (RPA)

Tree - Category

- A

Line of Trees - Category

- C

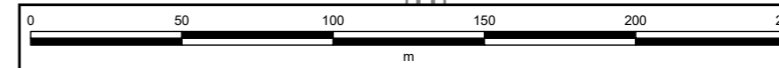
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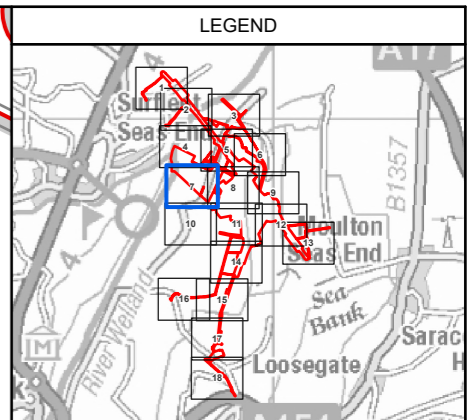
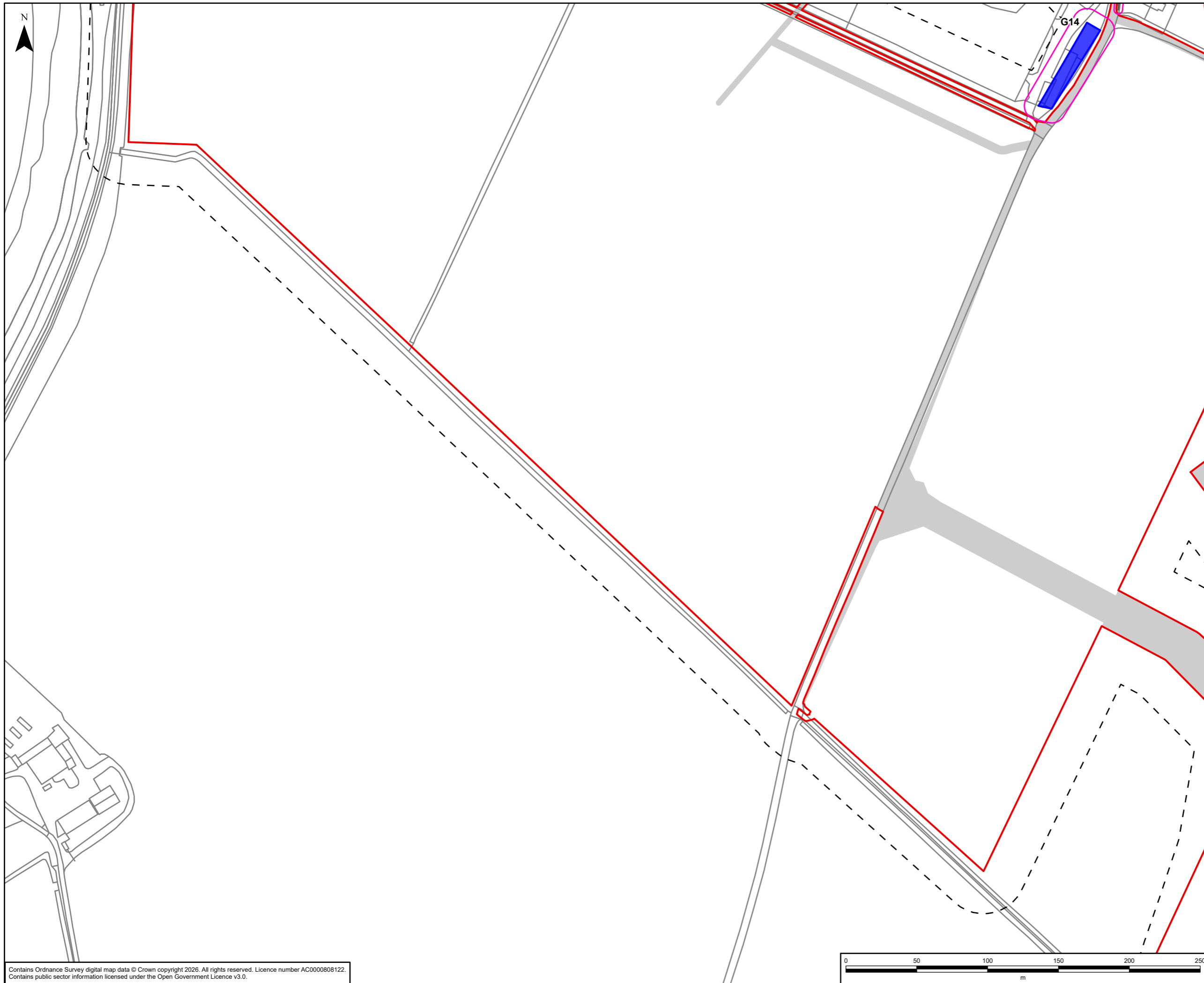
- B
- C

Rev	Date	Description	GIS	Chk	App
A	06/05/2026	First Issue	MM	CR	JC

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Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH					
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Creator: MM	Date: 06/05/2026	Checker: CR	Date: 06/05/2026	Approver: JC	Date: 06/05/2026
Document Type: FIGURE	Scale: 1:2,500	Format: A3	Sheets: 6 OF 18	Rev: A	

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- LEGEND**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Indicative Root Protection Area (RPA)
 - Line of Trees - Category
 - C
 - Group of Trees - Category
 - B

Rev	Date	Description	GIS	Chk	App
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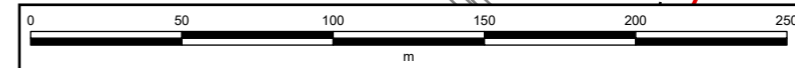
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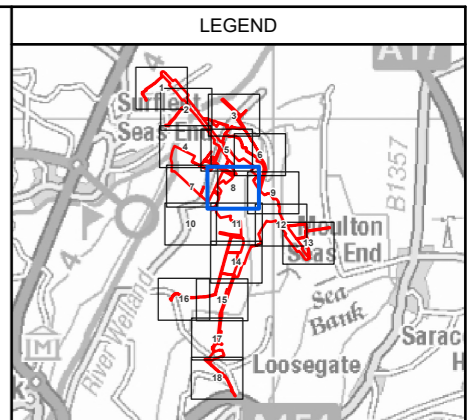
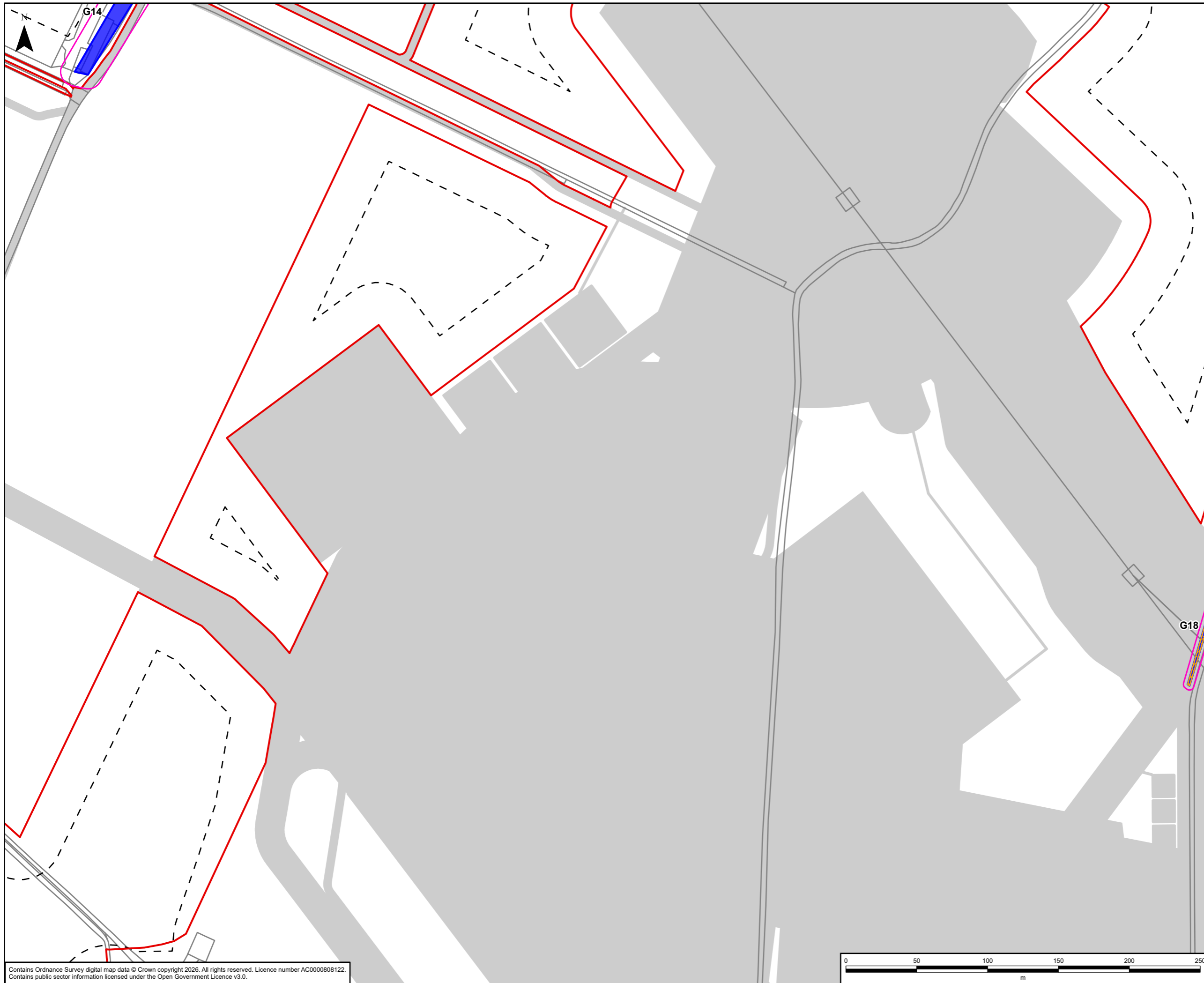
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TREE CONSTRAINTS AND IMPACTS**

Creator: MM	Date: 06/05/2026	Checker: CR	Date: 06/05/2026	Approver: JC	Date: 06/05/2026
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LEGEND

- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works
- Indicative Root Protection Area (RPA)
- Group of Trees - Category**
- B
- Removed

Rev	Date	Description	GIS	Chk	App
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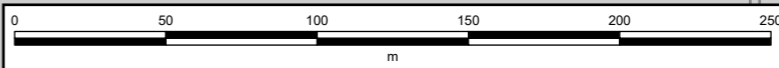
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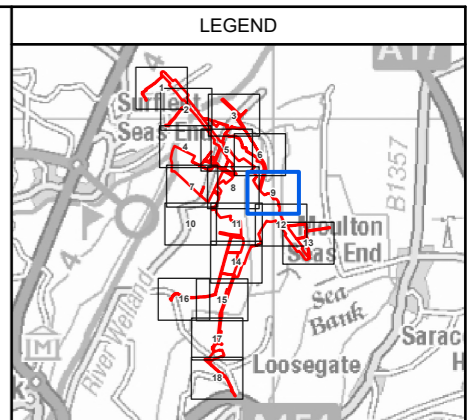
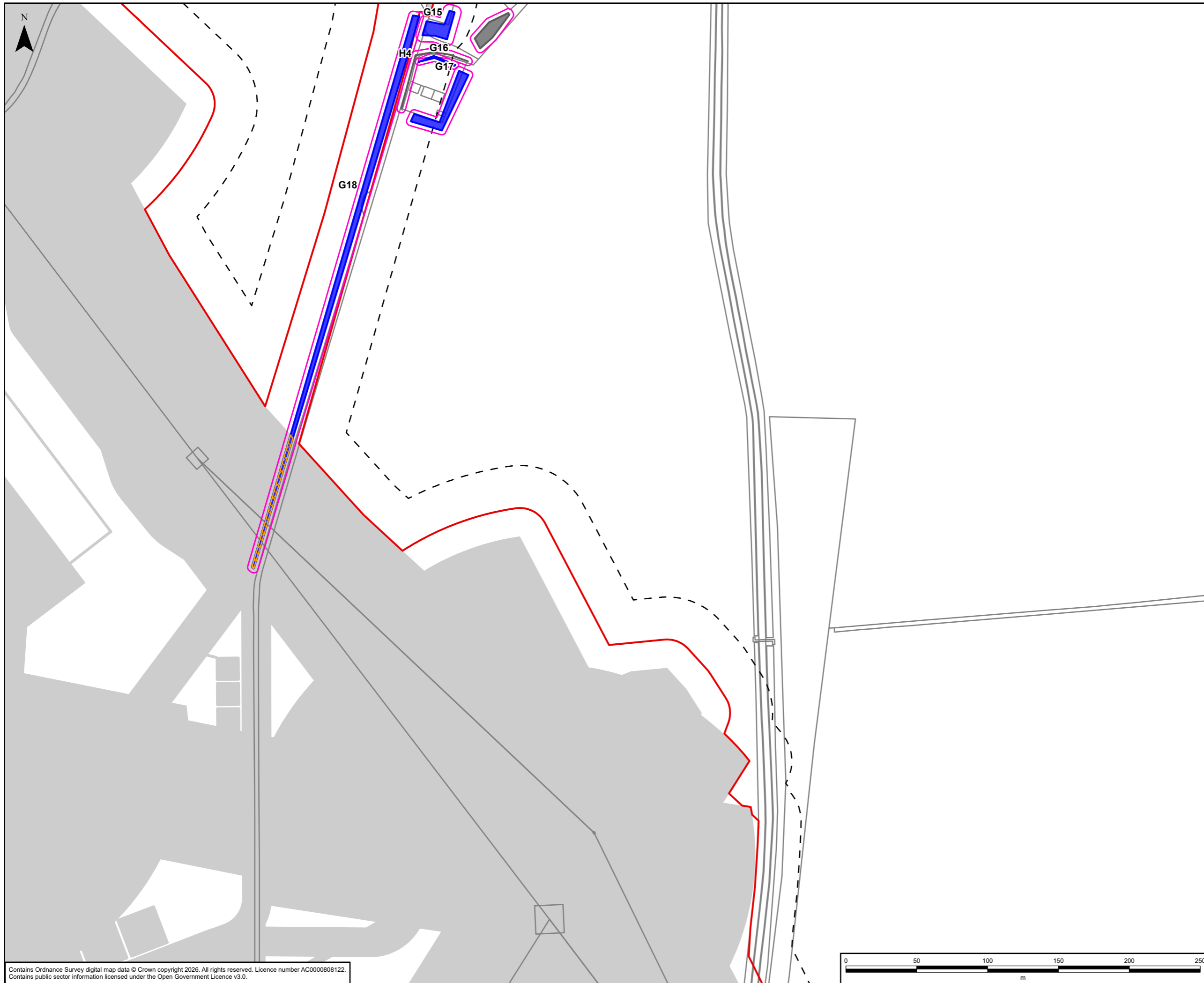
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- LEGEND**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Arboriculture Survey Results**
 - Indicative Root Protection Area (RPA)
 - Line of Trees - Category**
 - C
 - Group of Trees - Category**
 - B
 - C
 - Removed

Rev	Date	Description	GIS	Chk	App
A	06/05/2026	First Issue	MM	CR	JC

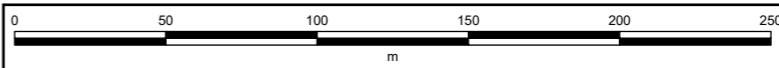
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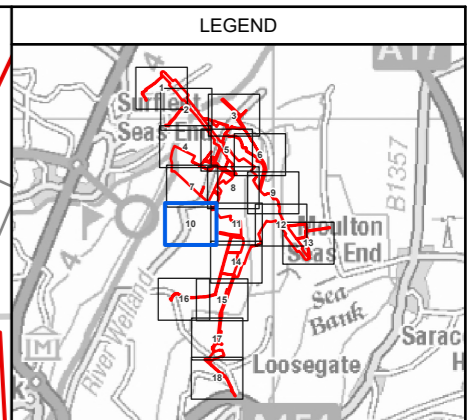
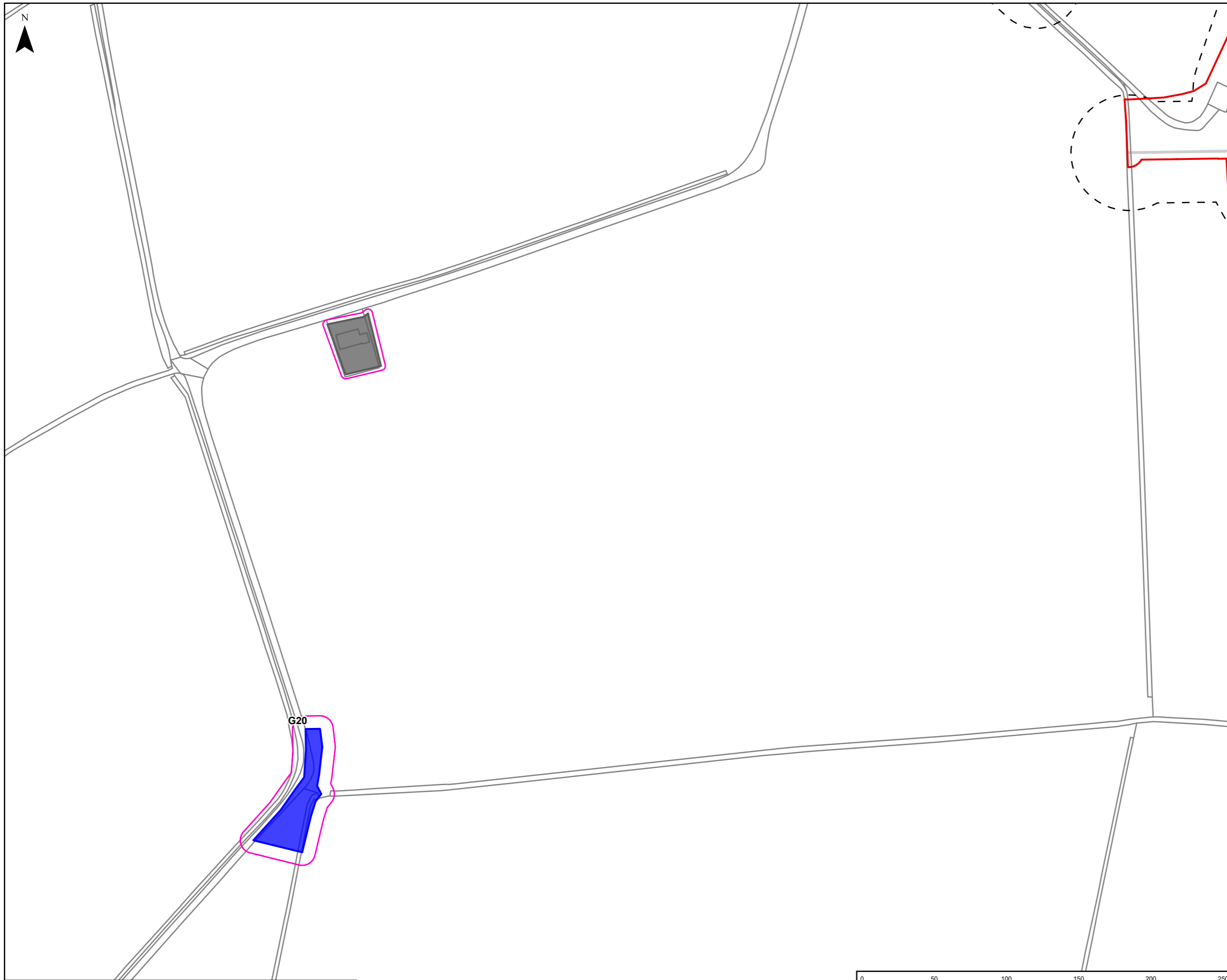
Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

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TREE CONSTRAINTS AND IMPACTS**

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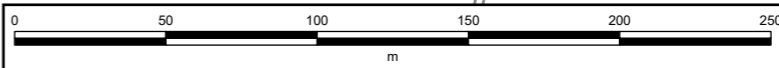


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- LEGEND**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Arboriculture Survey Results**
 - Indicative Root Protection Area (RPA)
 - Group of Trees - Category**
 - B
 - C

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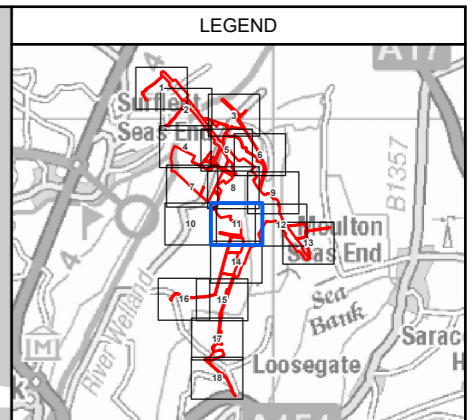
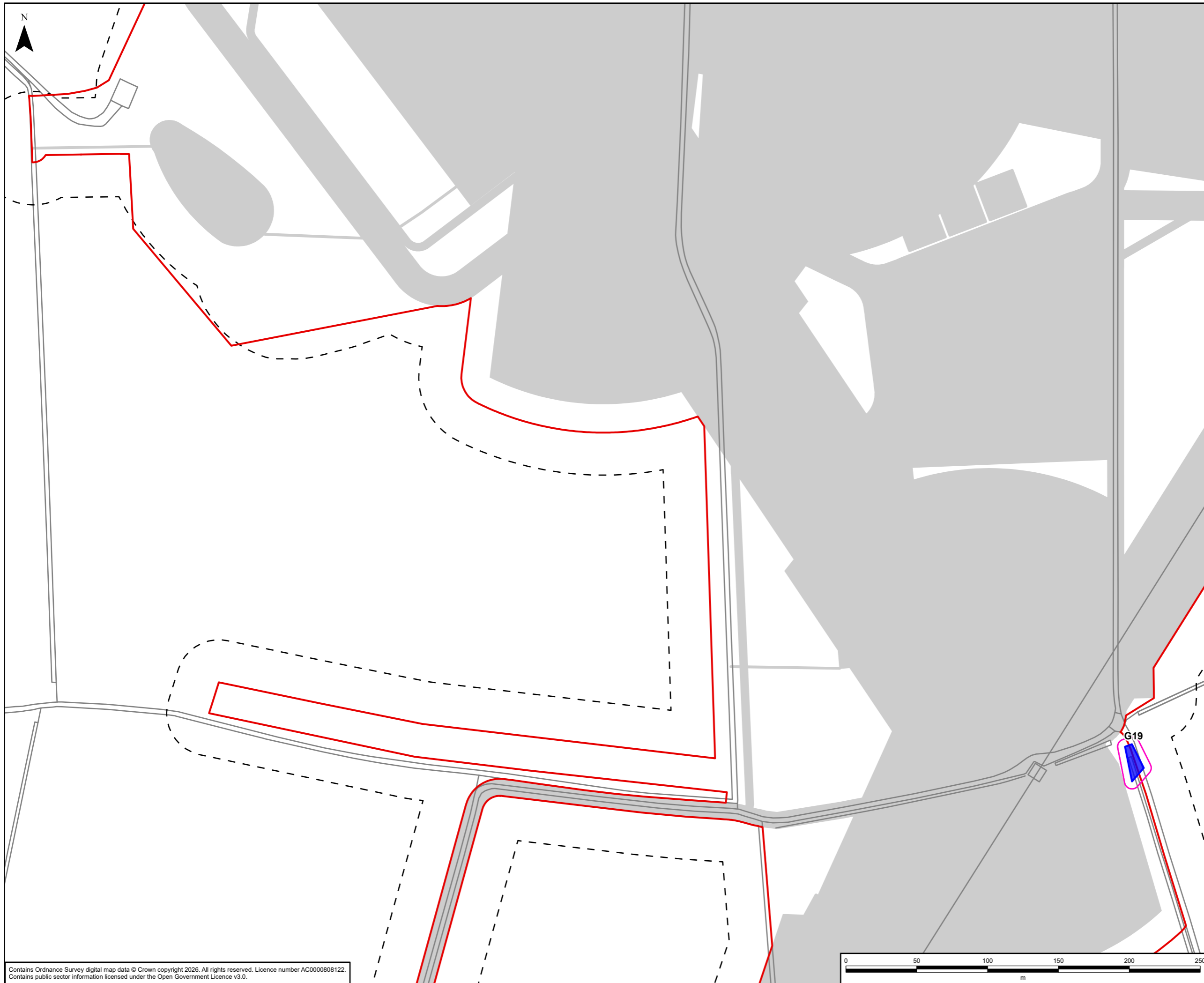
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Purpose: ARBORICULTURAL IMPACT ASSESSMENT

Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

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TREE CONSTRAINTS AND IMPACTS**

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Document Type: FIGURE	Scale: 1:2,500	Format: A3	Sheets: 10 OF 18	Rev: A	



LEGEND

Legend

- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works

Arboriculture Survey Results

- Indicative Root Protection Area (RPA)

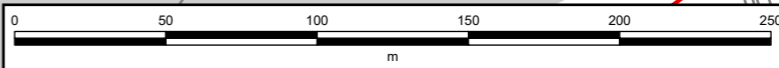
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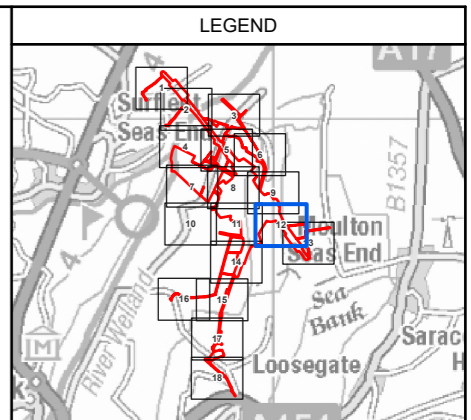
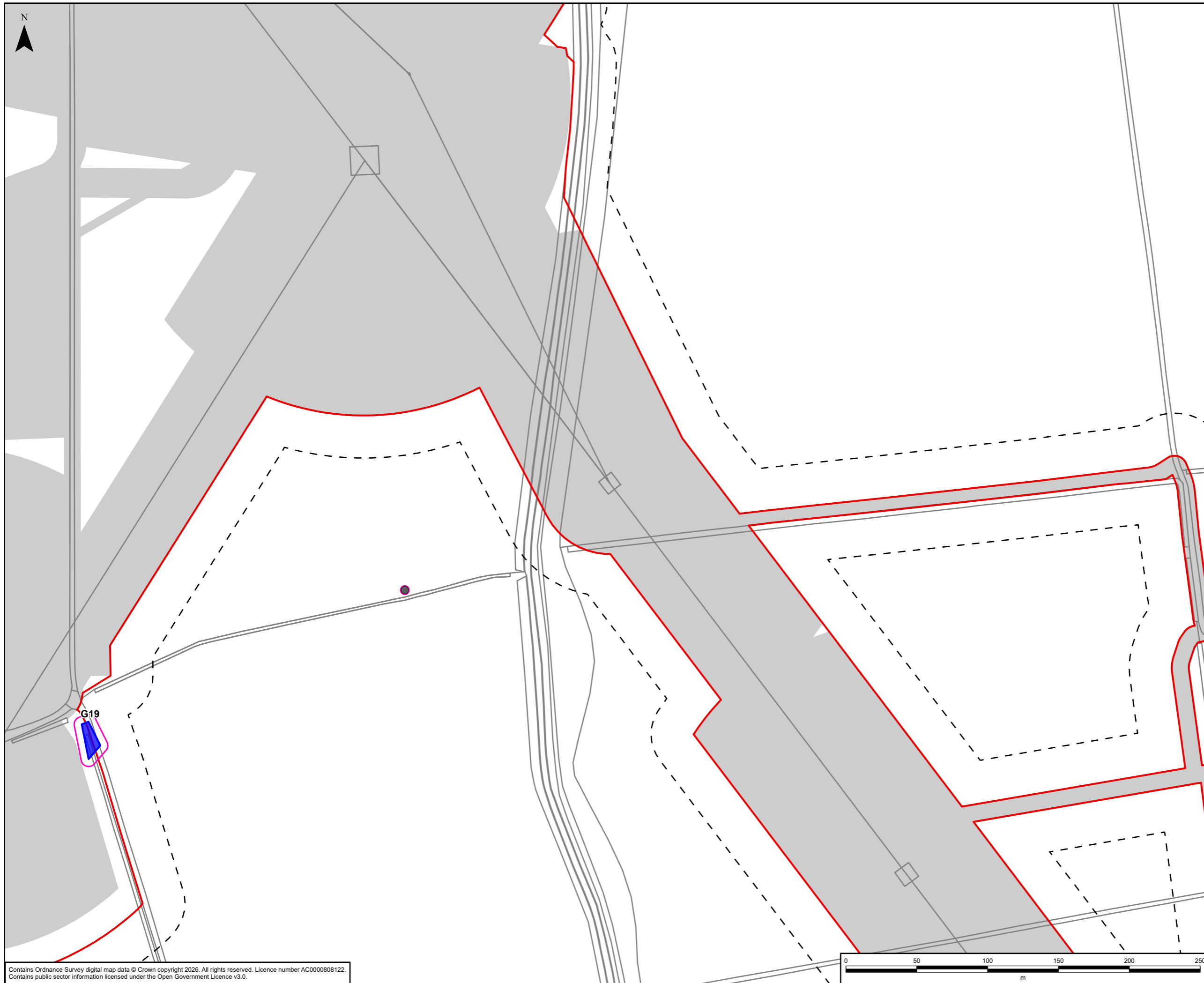
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Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH					
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Creator:	Date:	Checker:	Date:	Approver:	Date:
MM	06/05/2026	CR	06/05/2026	JC	06/05/2026
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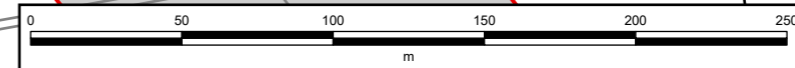
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- Legend**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Arboriculture Survey Results**
 - Indicative Root Protection Area (RPA)
 - Tree - Category**
 - C
 - Group of Trees - Category**
 - B

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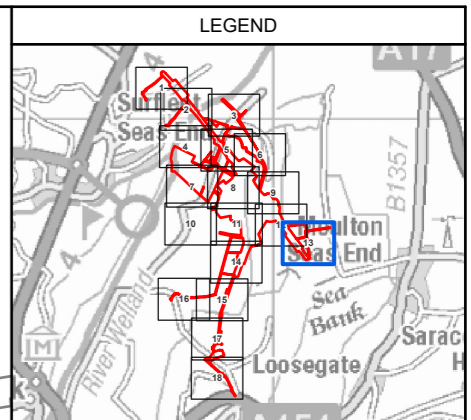
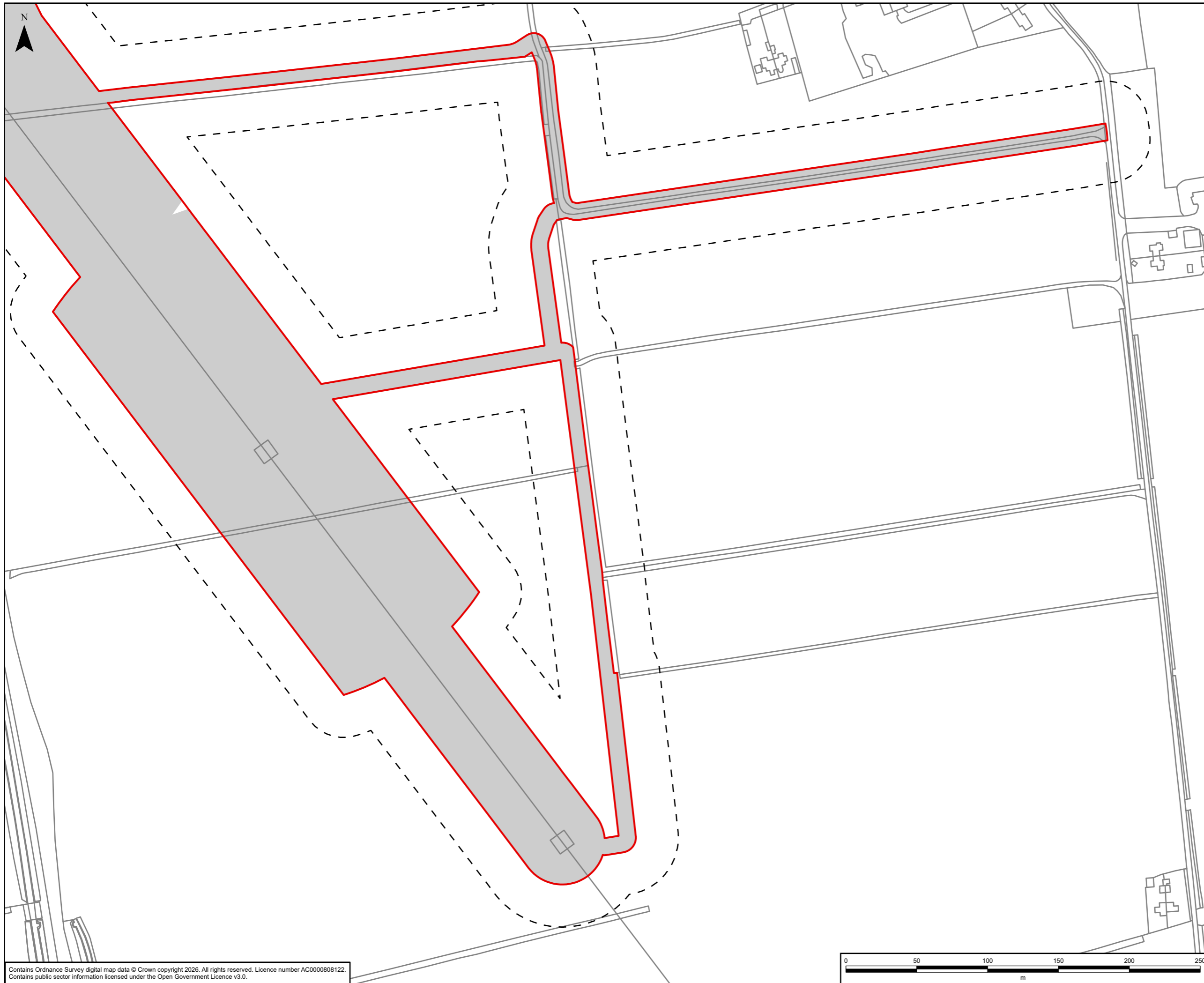
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Purpose: ARBORICULTURAL IMPACT ASSESSMENT

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TREE CONSTRAINTS AND IMPACTS**

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LEGEND

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	30m Study Area
	Permanent and Temporary Construction Works

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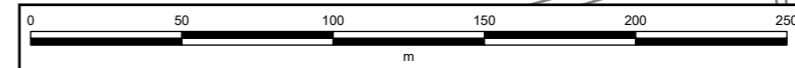
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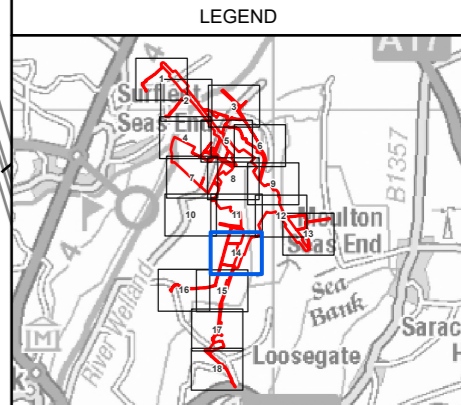
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TREE CONSTRAINTS AND IMPACTS**

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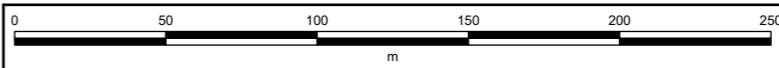
LEGEND

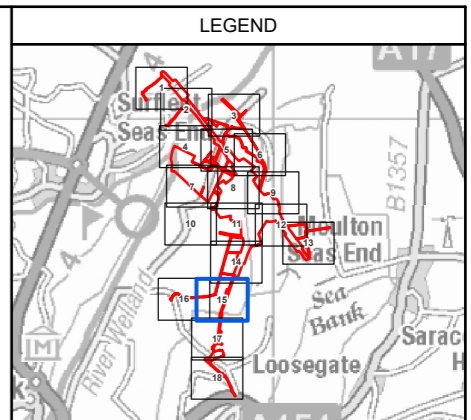
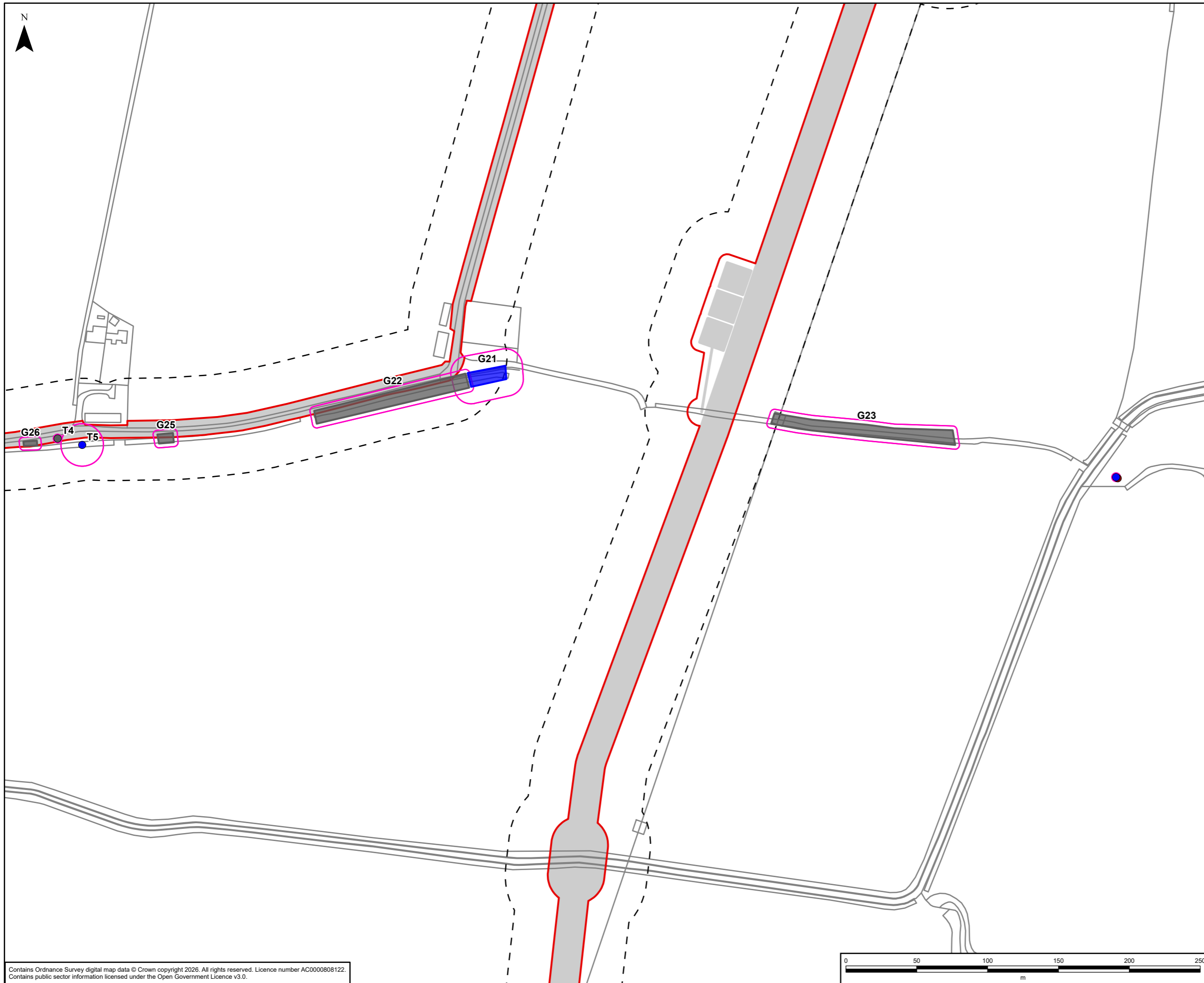
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	30m Study Area
	Permanent and Temporary Construction Works

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Purpose: ARBORICULTURAL IMPACT ASSESSMENT					
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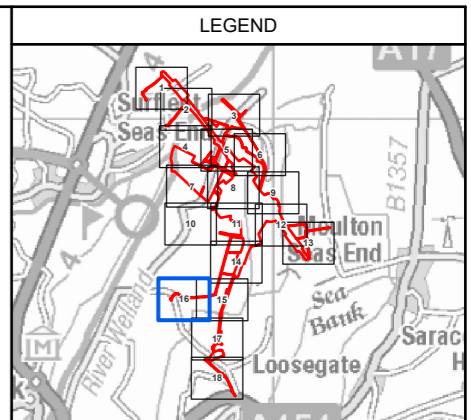
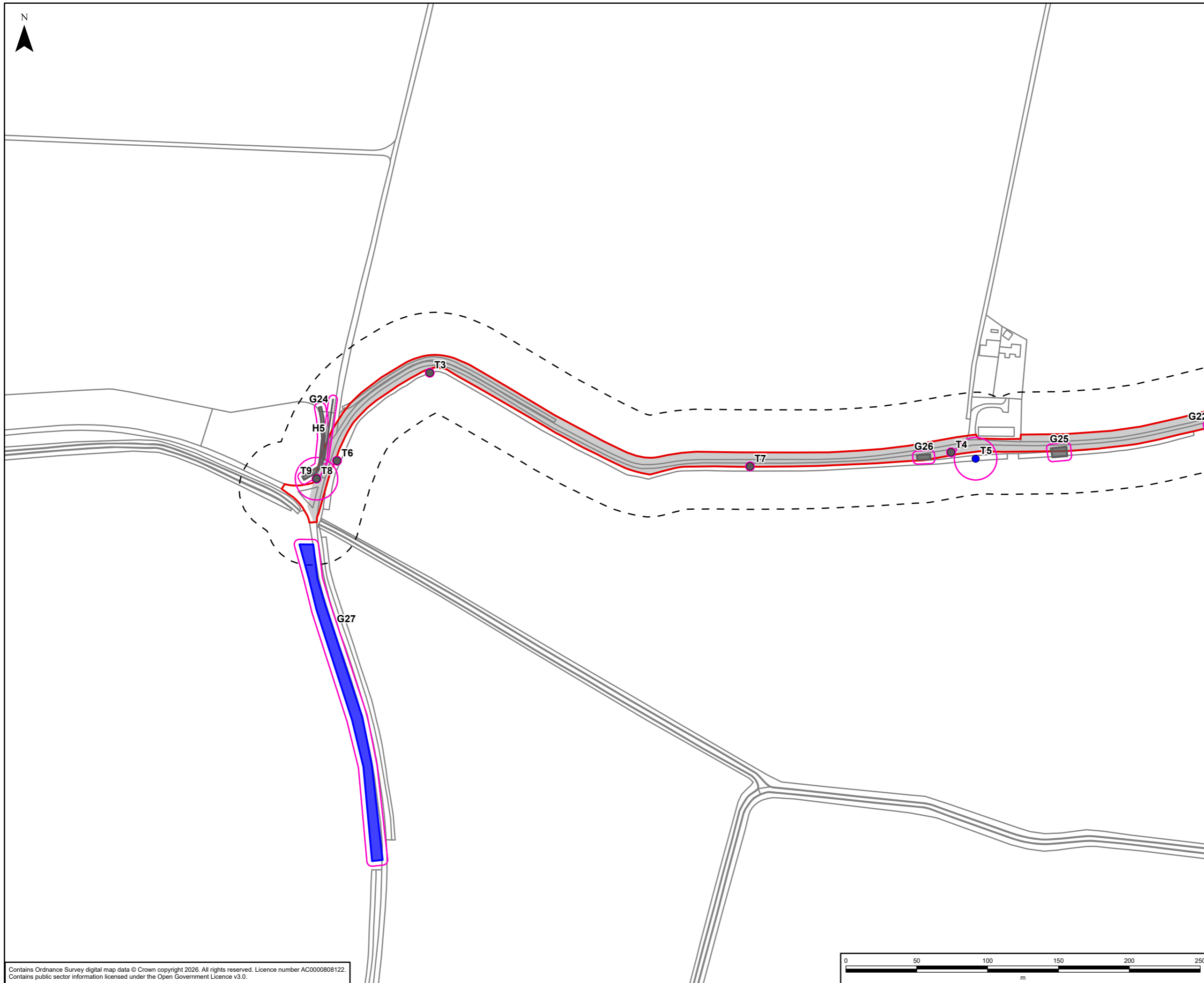
- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works
- Indicative Root Protection Area (RPA)
- Arboriculture Survey Results**
- Tree - Category**
- U
- B
- C
- Group of Trees - Category**
- B
- C

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FIGURE	1:2,500	A3	15 OF 18	A	

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- Legend**
- Scheme Site Boundary
 - 30m Study Area
 - Permanent and Temporary Construction Works
 - Arboriculture Survey Results**
 - Indicative Root Protection Area (RPA)
 - Tree - Category**
 - B
 - C
 - Line of Trees - Category**
 - C
 - Group of Trees - Category**
 - B
 - C

Rev	Date	Description	GIS	Chk	App
A	06/05/2026	First Issue	MM	CR	JC

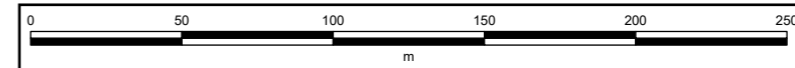


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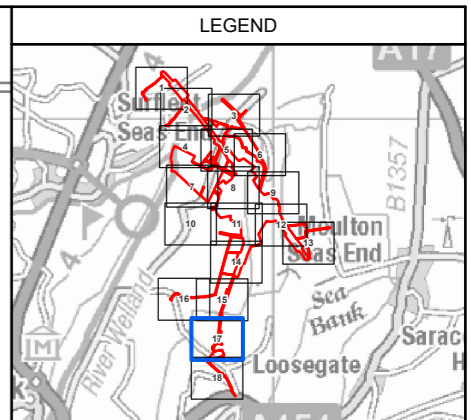
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Document Title: FIGURE 2
TREE CONSTRAINTS AND IMPACTS

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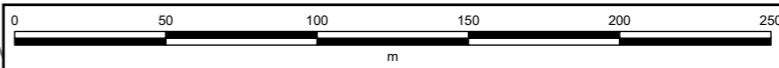
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LEGEND

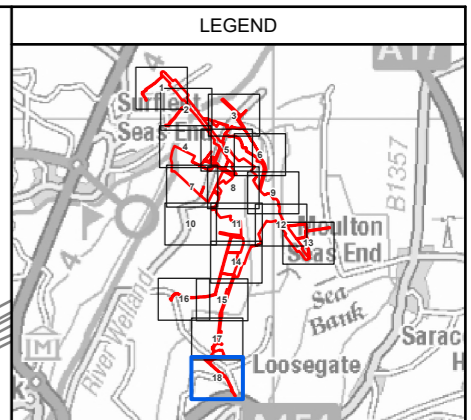
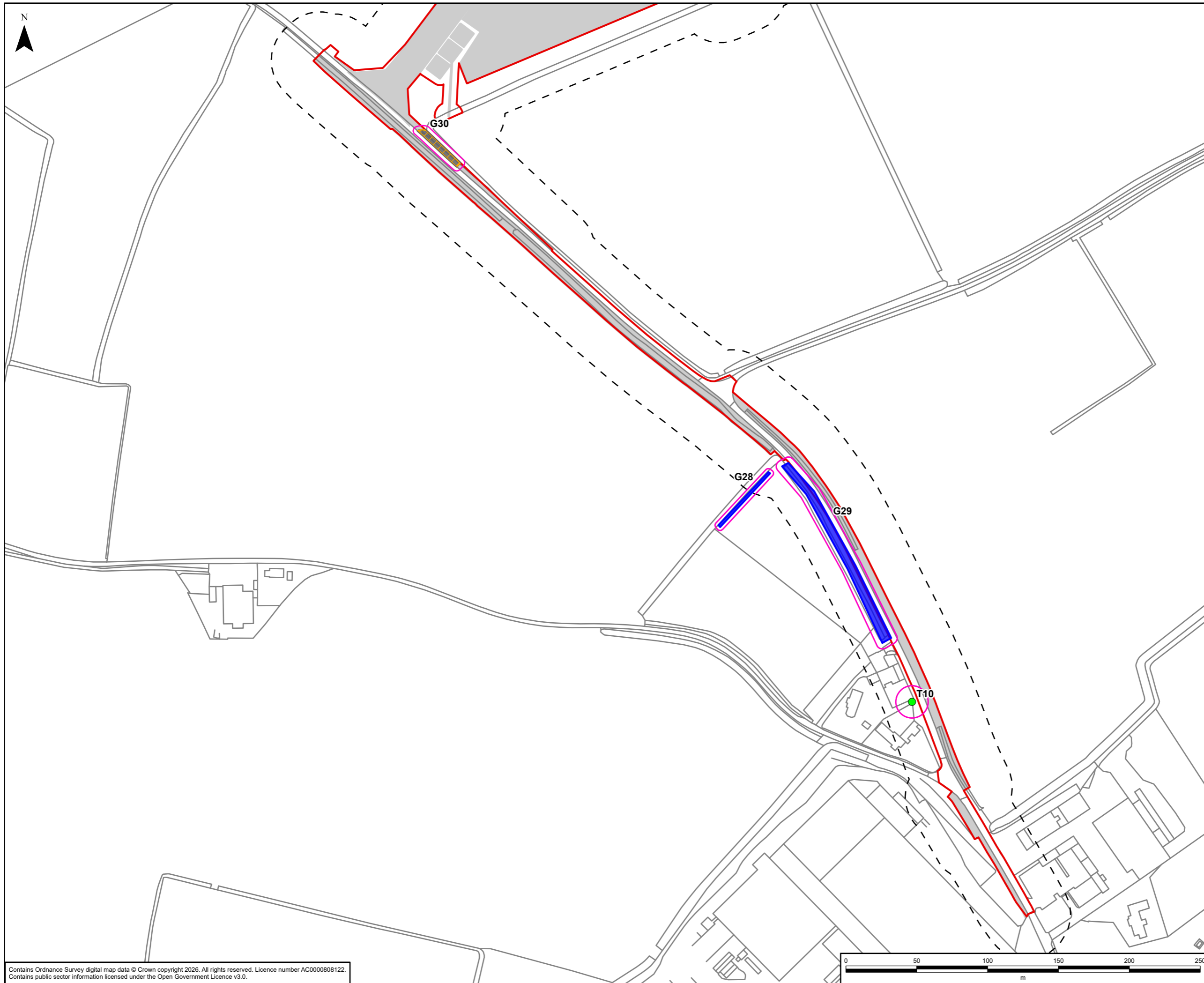
	Scheme Site Boundary
	30m Study Area
	Permanent and Temporary Construction Works

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nationalgrid					
Purpose: ARBORICULTURAL IMPACT ASSESSMENT					
Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH					
Document Title: FIGURE 2 TREE CONSTRAINTS AND IMPACTS					
Creator:	Date:	Checker:	Date:	Approver:	Date:
MM	06/05/2026	CR	06/05/2026	JC	06/05/2026
Document Type:	Scale:	Format:	Sheets:	Rev:	
FIGURE	1:2,500	A3	17 OF 18	A	



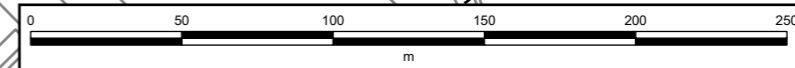
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- Scheme Site Boundary
- 30m Study Area
- Permanent and Temporary Construction Works
- Arboriculture Survey Results**
- Indicative Root Protection Area (RPA)
- Tree - Category**
- A
- Group of Trees - Category**
- B
- C
- Removed

A	06/05/2026	First Issue	MM	CR	JC
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FIGURE	1:2,500	A3	18 OF 18	A	

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Appendices

Appendix A Methodology

A.1. Introduction

- A.1.1. Baseline data collection has been undertaken with reference to BS 5837:2012 (Ref 10) and has been undertaken using the following data sources:
- 1) An arboricultural desk study, and
 - 2) A walkover arboricultural survey undertaken to capture data for trees falling into the following categories:
 - a) Woodlands;
 - b) Potential veteran/ancient trees;
 - c) TPO trees; and
 - d) Noteworthy trees and groups. Noteworthy trees are defined as Category A and B trees as set out in Table 1 of BS 5837:2012.

A.2. Desk Study

- A.2.1. The desk study for this project was undertaken on 5 February 2026.
- A.2.2. The desk study reviewed existing arboricultural information available in the public domain. The desk study has considered the following sources:
- 1) TPOs:
 - a) The Local Planning Authority, South Holland District Council (SHDC) is responsible for implementing any legal controls imposed through TPOs within the Study Area. The presence of TPOs is shown on their public web map (Ref 13)¹. A list of TPOs within the Study Area is shown in **Table B.1** of **Appendix B**;
 - 2) Conservation Areas:
 - a) The Local Planning Authority, SHDC, is responsible for implementing any legal controls imposed through Conservation Areas within the Study Area. The presence of Conservation Areas is shown on their public web map (Ref 13)¹;
 - 3) Ancient woodland and traditional orchards:
 - a) The potential presence of ancient woodland and traditional orchards within the Study Area was checked using the web based Multi Agency Geographic Information for the Countryside (MAGIC) map database (Ref 12)²; and
 - 4) Ancient and veteran trees:

¹ South Holland District Council (2026) Maps [online]. Available at: <<https://www.sholland.gov.uk/mapping>> [Accessed 5 February 2026].

² Magic (DEFRA) (2026) *Multi Agency Geographic Information for the Countryside* [online] Available at: <<https://magic.defra.gov.uk/MagicMap.html>> [Accessed 5 February 2026].

- a) The potential presence of ancient and veteran trees within the Study Area was checked using the Woodland Trust's Ancient Tree Inventory (ATI) (6.3.3.Ref 11)³.

Baseline Survey

- A.2.3. A field-based survey was undertaken between 20 and 22 January 2026. The survey was conducted with reference to open source aerial imagery to record the approximate locations of stems, which could have an error of up to 5 m.
- A.2.4. The field-based survey was undertaken in accordance with the following criteria:
- 1) Arboricultural features have been recorded as tree groups or linear areas where this has been deemed appropriate. Tree groups have been recorded on the basis that they form distinct arboricultural features either aerodynamically, visually or because they contain trees of similar cultural and biodiversity value. Wooded areas are recorded where larger expanses of trees exist and included features which may otherwise be referred to as copses, spinneys, or shelterbelts. Linear groups are specifically tree groups which are formed of a single line of trees;
 - 2) The trees have been visually inspected from ground level only;
 - 3) No tissue samples were taken nor was any internal investigation of the subject trees undertaken;
 - 4) Tree heights and crown spreads have been estimated to the nearest 1 m;
 - 5) Notes have been recorded where they relate to the quality or situation of the arboricultural feature;
 - 6) Management recommendations have been provided where work is necessary for the abatement of a hazard which presents a high level of risk to persons or property. Such management recommendations have been communicated to the tree owner/manager separately from this assessment;
 - 7) Stem diameters have been measured in accordance with Appendix C of BS5837:2012; and
 - 8) Diameters of single stem trees on level ground have been measured at 1.5 m above ground level. The diameters of other commonly encountered stems have been measured as per the guidance. The combined stem diameters have been calculated in accordance with BS5837:2012 Paragraph 4.6.1.
- A.2.5. By default, Root Protection Areas (RPAs) are calculated as an area equivalent to a circle with a radius 12 times the stem diameter and are capped at a distance of 15 m, unless the tree has been surveyed as a veteran, in which case the RPA is calculated at 15 times the stem diameter or 5 m beyond the canopy spread (whichever is the greater) and is not capped.

Quality Assessment

- A.2.6. The quality of arboricultural features has been determined in accordance with BS5837:2012 **Table 1**, a copy of which is provided in **Figure A.1** below. The purpose

³ Ancient Tree Inventory (2026) *Ancient Tree Inventory* [online] Available at: <<https://ati.woodlandtrust.org.uk>> [Accessed 5 January 2026]

of the quality assessment is to enable informed decisions to be made regarding the removal and retention of arboricultural features in the context of development. For an arboricultural feature to be included within a particular quality category it should accord with the description provided.

- A.2.7. The quality of each arboricultural feature is defined based on its sub-category. Sub-categories carry equal weight, do not influence retention priority and are simply included to indicate the primary value associated with each surveyed item. Sub-categories 1, 2 and 3 are intended to reflect arboricultural, landscape and cultural values, respectively.
- A.2.8. The quality and sub-category assigned to each arboricultural feature are identified within the Arboricultural Survey Schedule included in **Appendix C**.

Figure A.1 BS5837 Table 1 – Cascade Chart for Tree Quality Assessment

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Notes and Limitations

- A.2.9. Arboricultural survey data is based on the field-based survey.
- A.2.10. Only defects visible from the ground have been noted and each individual feature may not have been inspected closely due to access difficulties, the presence of dense ivy, other vegetation or safety constraints. Safety related features have not been recorded on the basis that the arboricultural features would be subject to a normal programme of tree hazard assessment and only those features which materially affect the quality of the feature or pose a real and immediate safety concern have been recorded.

- A.2.11. Arboricultural survey data is typically valid for a period of 24 months unless otherwise stated. Significant environmental events (such as extreme weather conditions) or changes to the area surveyed may render it invalid within a shorter timescale.
- A.2.12. Records held on the Ancient Tree Inventory are collected on a voluntary basis, therefore the absence of records does not demonstrate the absence of ancient or veteran trees but may simply indicate a gap in recording coverage.
- A.2.13. Whilst arboricultural surveys are not seasonally limited it is the case that certain pests and diseases may be more or less evident at different times of the year. This is especially true of certain wood decaying fungi such as the Giant Polypore (*Meripilus giganteus*) where fruiting bodies are short-lived, and the early stages of root decay may not result in other identifiable symptoms. Field-based based survey data is therefore based upon observations made at the time of the site visit and may be subject to change should further or more detailed inspections be undertaken.
- A.2.14. The survey has only been undertaken from land within National Grid's ownership, from public land or from areas where formal access has been arranged.
- A.2.15. The position of arboricultural features has been estimated using aerial photography.

Appendix A References

- Ref 10 The British Standards Institution (2012) BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- Ref 11 Ancient Tree Inventory (2026) Ancient Tree Inventory [online]. Available at: <https://ati.woodlandtrust.org.uk> [Accessed 5 January 2026].
- Ref 12 Magic (DEFRA) (2026) Multi Agency Geographic Information for the Countryside [online]. Available at: <https://magic.defra.gov.uk/MagicMap.html> [Accessed 5 January 2026].
- Ref 13 South Holland District Council (2026) Maps [online]. Available at: <https://www.sholland.gov.uk/mapping> [Accessed 5 January 2026].

Appendix B Desk Study Results

Table B.1 TPOs identified within the Study Area

Local Planning Authority	Title	Description
South Holland District Council	Roman Bank, Surfleet Seas End	Group located north of River Welland, east of Surfleet Bank. Site of Local Conservation Interest.

Appendix C Tree Schedule

Table C.1 Tree Schedule

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
T1	Ash	18	142	7-4-7-6	M	Stem cavity at 1.5m south to approximately 600mm subsequent of historic primary union failure. Evident hollowing and aerial rooting within stem cavity. Fungal fruiting bodies of <i>Inonotus hispidus</i> mid stem. Minor deadwood to 70mm diameter. No signs of significant decline indicative of ash dieback disease.	1.7	40+	A1
T2	Sycamore	12	750	6-6-6-6	M	Epicormic growth at base and Ivy clad limits inspection, visually the tree is healthy.	9	20+	B2
T3	Ash	-	-	-	SM	Multi- stemmed at the base and located in a ditch. Sparse crown and minor deadwood.	3	10+	C1
T4	Sycamore	-	260	-	SM	Semi mature tree located next to the road, and underneath overhead wires. Stem is densely covered in Ivy. Broken branches on roadside of the crown.	3	10+	C1

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
T5	Sycamore	20	1350	10-10-10-10	M	Standalone tree on boundary between field and road. Established epicormic growth at the base. Ivy growth obscures stem. Minor amount of deadwood.	15	40+	B1
T6	Ash	-	-	-	SM	Located in a ditch alongside the road, twin stemmed at c. 1m.	3	10+	C1
T7	Apple	-	-	-	EM	Located in a ditch next to the road, flail damage, dense crown.	3	10+	C1
T8	Ash	-	-	-	M	Located on a roadside verge, dense Ivy growth obscures the stem. Crown had been heavily reduced with new growth forming the crown.	3	10+	C1
T9	Ash	17	1250	4-7-4-3	M	Ivy clad stem to approximately 10m restricting view of stem. No signs indicative of ash dieback.	15	20+	B2
T10	Crack Willow	18	950	10-10-10-10	M	Located on third party land. Crown over hanging the road, but HGV vehicles fit underneath.	11.4	40+	A2
H1	Hawthorn	-	-	-	EM	Boundary hedge.	3	10+	C2

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
H2	Leyland Cypress	-	-	-	SM	Well managed	3	10+	C2
H3	Mixed Broadleaves	-	-	-	SM	Service lines above.	3	10+	C2
H4	Beech	-	-	-	SM	Managed hedge	3	10+	C2
H5	Hawthorn, hazel, blackthorn	-	-	-	SM	Managed hedge	3	10+	C1
G1	Ash, Leyland cypress, nootka	11	300	5-5-5-5	EM	Ash, Leyland cypress, Nootka, located in private garden, provide good screening for the residential area.	3.6	20+	B2
G2	Mixed Broadleaves	-	-	-	SM	Close spaced group.	3	10+	C2
G3	Ash, elder, field maple, hawthorn, pedunculate oak, common apple, whitebeam	15	410	5-5-5-5	EM	Located on a higher ground comparing to the track, behind the wire fence, closed spaced with healthy trees.	4.9	20+	B2
G4	Hybrid black poplar, hawthorn	19	740	7-7-7-7	EM	Hybrid black poplar, part of the linear group, hawthorn understorey, field boundary group, minor to moderate deadwood in the upper canopy.	8.8	20+	B2

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
G5	Mixed Broadleaves	-	-	-	SM	Hawthorn and elder	3	10+	C2
G6	Mixed Broadleaves	-	-	-	EM	Hawthorn and elder	3	10+	C2
G7	Horse chestnut, Scots pine, common beech, silver birch	15	630	6-6-6-6	EM	Located in private garden, provide good screening for the house, hedge understorey, moderately spaced.	7.5	20+	B2
G8	Mixed Broadleaves	14	800	6-6-6-6	M	Located within residential garden, viewed from neighbouring field. Evident crown reduction management over garden.	9.6	20+	B2
G9	Common Lime	17	780	5-5-5-5	EM	Dense Epicormic growth limits inspection, canopies moderately biased south	9.3	20+	B2
G10	Mixed Broadleaves	15	440	4-4-4-4	SM	Lower canopies managed to a height of 5m. North east trees reduced to a height of 4m to facilitate clearance from overhead HV lines.	5.2	20+	B2
G11	Ash	-	-	-	M	Signs of decline subsequent of ash dieback disease throughout group	3	10+	C2

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
G12	Ash	-	-	-	EM	Signs of ash dieback on both trees, northern tree is in worse condition	3	10+	C2
G13	Mixed Broadleaves	-	-	-	SM	Heavily managed, Ivy clad on stems.	3	10+	C2
G14	Mixed Broadleaves, Sycamore, common oak, common lime	17	830	7-7-7-7	M	Linear group, stem damage from ivy severance, minor to moderate deadwood diameter of 120 mm.	9.9	20+	B2
G15	Mixed Broadleaves, silver birch, Lombardy poplar, sycamore	9	380	5-5-5-5	EM	Planted row of trees, wire fencing next to stems.	4.5	20+	B2
G16	Monterey pine, weeping willow	6	200	3-3-3-3	SM	Located in private garden.	2.4	20+	B2
G17	Lombardy Poplar	14	250	3-3-3-3	EM	Planted linear group, in private garden, provide good screening.	3	20+	B2
G18	Mixed Broadleaves, Ash, Swedish white beam, sycamore, wild cherry	10	250	3	EM	Planted linear group, managed from the track side, gaps within the group, crown lifted over the track	3	20+	B2

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
G19	Ash	10	440	4	EM	Part of the bigger group, linear planted group, trees look healthy, some pruning is observed	5.2	20+	B2
G20	Mixed Broadleaves, ash, hybrid black poplar, Sycamore	14	750	6	M	Ash shows signs of ash dieback, 9 dead tree in the group, snapped branches	9	20+	B2
G21	Sycamore	17	1000	4	M	Linear group of large trees located along a ditch; dense Ivy obscures the stems.	12	20+	B2
G22	Crack Willow	-	-	-	SM	Linear group of trees in along a ditch. Dense crown, predominantly willow with sycamore, hawthorn and elder.	3	10+	C1
G23	Common Elder	-	-	-	EM	Linear group between field parcels and underneath overhead lines. Scrub group.	3	10+	C1
G24	Mixed Broadleaves	-	-	-	Y	C grade mixed broadleaves.	3	10+	C2
G25	Hawthorn	-	-	-	EM	Scrub group of mix species next to roadside, dense and inaccessible. Sycamore and elder also in group.	3	10+	C1
G26	Hawthorn	-	-	-	EM	Scrub group within ditch alongside a road, flail	3	10+	C1

Ref	Species	Height (m)	Stem Dia. (mm)	Crown Spread (m)	Life Stage	Tree Condition Notes & Observations	RPA Rad. (m)	Estimated Remaining Contribution (Years)	BS5837 Category
						damage, dense Ivy growth on stems.			
G27	Common Lime	10	300	4-4-4-4	SM	Linear group of roadside trees. Cohesive crowns, no obvious defects.	3.6	20+	B1
G28	Hornbeam	6	200	5-5-5-5	SM	Linear group of trees inaccessible other side of a ditch. Typical form for the species.	2.4	20+	B1
G29	Walnut	8	350	6-6-6-6	EM	Linear group along the boundary, Typical form for the species.	4.2	20+	B1
G30	Ash, hawthorn	-	-	-	SM	Linear group along roadside, minor deadwood.	3	10+	C2

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