

1MC12 – Stage 2 – Main Works Civils for C2 and C3 Sectors

Survey Report for Construction Integrated Recording at C25148 Chetwode Mill

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C01	19/07/2024	Damiano Portarena	Eleonora Massacci	Katie-Morag Hutton	First Issue	Carsten Mieves

Stakeholder review required (SRR)	Purpose of SRR
<input type="checkbox"/> County / District / London Borough Council	<input type="checkbox"/> Acceptance
<input type="checkbox"/> LOV	<input type="checkbox"/> Approval
<input type="checkbox"/> LUL	<input type="checkbox"/> No Objection
<input type="checkbox"/> NRL	<input type="checkbox"/> Consent
<input type="checkbox"/> TFL	
<input type="checkbox"/> Utilities Company	
<input type="checkbox"/> Other (please specify)	

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1 Executive Summary

- 1.1.1 Construction Integrated Recording (CIR) was carried out by Headland Archaeology at Chetwode Mill between 7th and 28th May 2024 (CrID: C25148; site code: 1C21CWMCI). The Site is centred at NGR: 464852 228407 and lies within the parish of Chetwode, c. 1.5km southeast of the historic centre of Chetwode.
- 1.1.2 Previous excavation recorded pre-historic, medieval, post-medieval and modern archaeology, including structural remains of the Mill buildings and mill pond.
- 1.1.3 In May 2024 the CIR Area was cleaned carefully by a mechanical excavator under archaeological supervision to remove any remaining obscuring deposits, and weathered material, so that any surviving archaeological features could be identified. This included removal of fill around a modern culvert and trackway.
- 1.1.4 The CIR demonstrated the presence of fragmented and badly deteriorated structural remains related to the mill buildings and mill race. While no direct evidence of the Mill race furniture were recorded, several wooden beams were excavated and assessed directly underlying the stone walls.

2 Introduction

- 2.1.1 The Site is required for the construction of Chetwode Embankment and associated assets including drainage for the Godington Viaduct. These assets comprise the Bridleway CHW/24 Upgrade to a maintenance access road, and the installation of the Godington West Viaduct drainage, which will consist of open drain Works which are being undertaken by EKFB, the main works contractor and vegetation clearance undertaken by XYZ Rail.
- 2.1.2 Chetwode Mill is defined as an Archaeological Notification Area (ANA No 0513700000) by Buckinghamshire County Council.
- 2.1.3 Chetwode Mill is mentioned in the Domesday book and is first depicted on maps in the early 17th century. The mill was pulled down in the early 1940's after the last tenant died. Features relating to the mill including the mill leat and mill race were still present on site and visible. The area of the mill building is overgrown but comprises a visible rubble pile on top of a building platform.

2.2 Project Background and Objectives

- 2.2.1 High Speed Two (HS2) is a railway network proposed by the UK Government. Phase One of HS2 will involve the construction of a new railway route approximately 230km (143 miles) in length between London and the West Midlands. Powers for the construction, operation and maintenance of Phase One are conferred by the High Speed Rail (London - West Midlands) Act 2017.

- 2.2.2 The mill at Chetwode is recorded in the Domesday book in 1086 as part of an earlier Anglo-Saxon estate. The estate, possibly the mill, had been built up after the year 949 to support the establishment of the burh at Buckingham. The historical evidence indicates continued activity at this site through the medieval period with the pattern of the mill, leat and meadows remaining unchanged in the landscape certainly from 1638 and probably for longer. The mill, first depicted on historic maps in the early 17th century, fell into disuse in the early 20th century, being pulled down in the 1940's. Features relating to the mill leat and mill race are still extant on site.

2.3 Site Location and Description

- 2.3.1 The Site is centred at NGR: 464852 228407 and lies within the parish of Chetwode, c. 1.5km south-east of the historic centre of Chetwode (Figure 1). It occupies one parcel of land, covering 986 sq. m (Fusion Site GIS ID no: C25147).
- 2.3.2 The Site lies within Community Form Area (CFA) 13 and Archaeological Sub-Zone (ASZ) 23 (Chetwode), to the south of Southam and east of the A423. The ASZ is situated on a slight west-facing slope. Chetwode is a small settlement dispersed over a large area interspaced with agricultural fields and other features. Chetwode is of early medieval origin, and includes multiple moats, fishponds and other features of medieval date, including the watermill (HS2 asset ref.: CAL094).

2.4 Specific Aims and Objectives

The general aim of the CIR is to identify the character, extent, quality, preservation and significance of any surviving archaeological remains present within Area C25147 in order to inform an archaeological resource assessment of its knowledge value and ability to contribute to specific objectives set out in the *GWSI: HERDS*. The general aims can be set out as following;

- to confirm the presence/absence, extent and depth of any surviving archaeological remains within the Site, particularly those associated with the post-medieval Chetwode Mill and any evidence for a preceding medieval structure;
- to determine the nature, date, condition, state of preservation, complexity and significance of any archaeological remains;
- to determine the likely range, quality and quantity of artefactual and environmental evidence present;
- to record in plan and section any archaeological remains; and to contribute to the delivery of *GWSI: HERDS* Specific Objectives as specified in Section 3.2.2.

Table 1: Potential Contribution to HERDS Specific Objectives.

Specific Objective	Contribution
KC33: Investigate the development of water mills from the Anglo Saxon through to the modern period. How did the technology of milling change, and what implications did this have for farming practice?	The mill and associated infrastructure are recorded as present on site from at least 1086, and potentially even 949, through to demolition in the 1940's. The presence of such as structure and its investigation has the potential to contribute to this objective.
KC34: Undertake research and investigation into medieval manorial complexes. What was their origin, development, and impact on the landscape	The mill is recorded as part of the wider Chetwode Manor estate and would therefore contribute to this objective potentially allowing a greater understanding of the development, use and impacts of the surrounding landscape.
KC40: Identify patterns of change within Medieval rural settlement from the 11th to mid- 14 th century	Any evidence recovered for the evolution of the mill over time and its relationship to the wider manorial setting, may have the potential to contribute to this objective.

3 Survey Methodology

3.1 Set out Survey

- 3.1.1 The extent of the excavation was located to a horizontal accuracy of $\pm 20\text{mm}$ using Global Navigation Satellite System (GNSS) equipment with Real Time Kinematic (RTK) corrections. The area was assigned a unique ID in accordance with HS2 Ltd Asset Information Management System (AIMS).
- 3.1.2 The limits of excavation were surveyed using RTK GNSS equipment to a 3-dimensional accuracy of $\pm 20\text{mm}$.
- 3.1.3 The equipment used comprised a carbon fibre detail pole and a Trimble R10 Receiver connected to a TSC5 Handset. It was connected via a SIM card and run on a Roaming network to connect to the Trimble VRS Now service for corrections. There was good cellular signal in the survey area meaning a repeater signal or other aides were not required.
- 3.1.4 All survey was undertaken by appropriately trained and competent Headland staff. All features were surveyed in accordance with the Employer's Geographic Information System Standards: Section 5.9 Primary data collection using GPS receivers (HS2-HS2-GI-STD-000-000002), the Employer's Technical Standards - Specification for historic environment investigation (HS2-HS2-EV -STD-000-000035) and Headland Archaeology's technical specifications, which are compliant with Historic England Metric Survey Specifications (HE, 2015).

3.2 Post-Survey Processes

- 3.2.1 All spatial data recorded on Trimble equipment was saved on the unit's internal storage and transferred via Trimble Sync Manager. Survey data was processed using Trimble Business Centre and exported as a Shapefiles. After processing, the data was gathered in GIS software and projected into the Ordnance Survey National Grid (ESPG:27700 OSGB-1936).
- 3.2.2 All figures comprised of polygons, polylines, and points in accordance with the requirements of GIS industry and Headland Archaeology's internal standards and practices. All GIS works comply with the *Employer's* Geographic Information System Standards (HS2-HS2-GI-STD-000-000002).
- 3.2.3 Figure 1 illustrates the primary survey data converted into GIS. Hardcopy maps derived from GIS shall be exported to PDF format, unless otherwise specified by the Employer as per Geographic Information System Standards and Specification (HS2-HS2-GI-STD-000-000002; HS2-HS2-GI-SPE-000-000004).
- 3.2.4 Metadata will be supplied with the GIS data in accordance with the *Employer's* Metadata Standard - (HS2-HS2-GI-STD-000-000007).

3.3 Archive Deposition

- 3.3.1 The digital data is stored on Headland Archaeology servers and backed up daily. The archive is prepared and stored according to industry best practice and standards (ClfA 2014a, 2014b, 2014c). The data will be submitted to HS2 as per the Employer's Historic Environmental Digital Data Management and Archiving Procedure (HS2-HS2-EV-STD-000-000040).

4 Acknowledgements

Project Manager: Ailsa Westgarth

Site Director: Francis Pitcher

Field Archaeologists: Michael Dean, Raphael Lam

Illustrator: Damiano Portarena

5 References

Title	Reference
Chartered Institute for Archaeologists (ClfA) 2014a Standard and Guidance for Archaeological Field Evaluation	ClfA 2014a
Chartered Institute for Archaeologists (ClfA) 2014b Standard and Guidance for Archaeological Excavation	ClfA 2014b
Chartered Institute for Archaeologists (ClfA) 2014c Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives	ClfA 2014c
HS2 Technical Standard: Cultural Heritage GIS Standards	HS2-HS2-GI-STD-000-000002
HS2 Technical Standard: Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
HS2 Technical Standard: Cultural Heritage Metadata Standards	HS2-HS2-GI-STD-000-000007
HS2 Technical Standard: Specification for Historic Environment Investigations	HS2-HS2-EV-STD-000-000035
HS2 Technical Standard: Historic Environment Digital Data Management and Archiving Procedure	HS2-HS2-EV-STD-000-000040
AWHi Location Specific Written Scheme of Investigation for Construction Integrated Recording at Chetwode Mill, Buckinghamshire	1EW03-FUS_COP-EV-REP-CS06_CL10-000004

6 Glossary of Terms

6.1.1 The following terms have been used in this report:

- **Archaeological Contractor** – the organisation undertaking the specific historic environment works for the Contractor.
- **Contractor** – the organisation undertaking the Enabling Works on behalf of the Employer.
- **Detailed Desk Based Assessment (DDBA)** – analytical document that builds on the information gathered previously in the Environmental Statement to address particular issues, questions or uncertainties within a given area. It may be developed to provide a more detailed understanding of the resource in an area to inform design development or construction programming.
- **Employer** – HS2 Ltd, the organisation responsible for delivery of HS2 Phase One Scheme and all terms and conditions, policies, procedures, and payments
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combine historic environment investigation programme of assessment, evaluation and investigation.
- **Project Plans** – specification document for each specific package of activity (e.g. a survey, desk-based assessment, excavation, recoding project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget.
- **Works** – the specific historic environment assessment, evaluation or investigation works at each location.

7 Illustrations

1MC12-EKF-EV-MAP-CS09-000014	<i>Maps for Survey Report for Construction Integrated Recording at C25148 Chetwode Mill.</i>
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Figure 1

1MC12 - Stage 2 - Main Works Civils for C2 and C3 Sectors

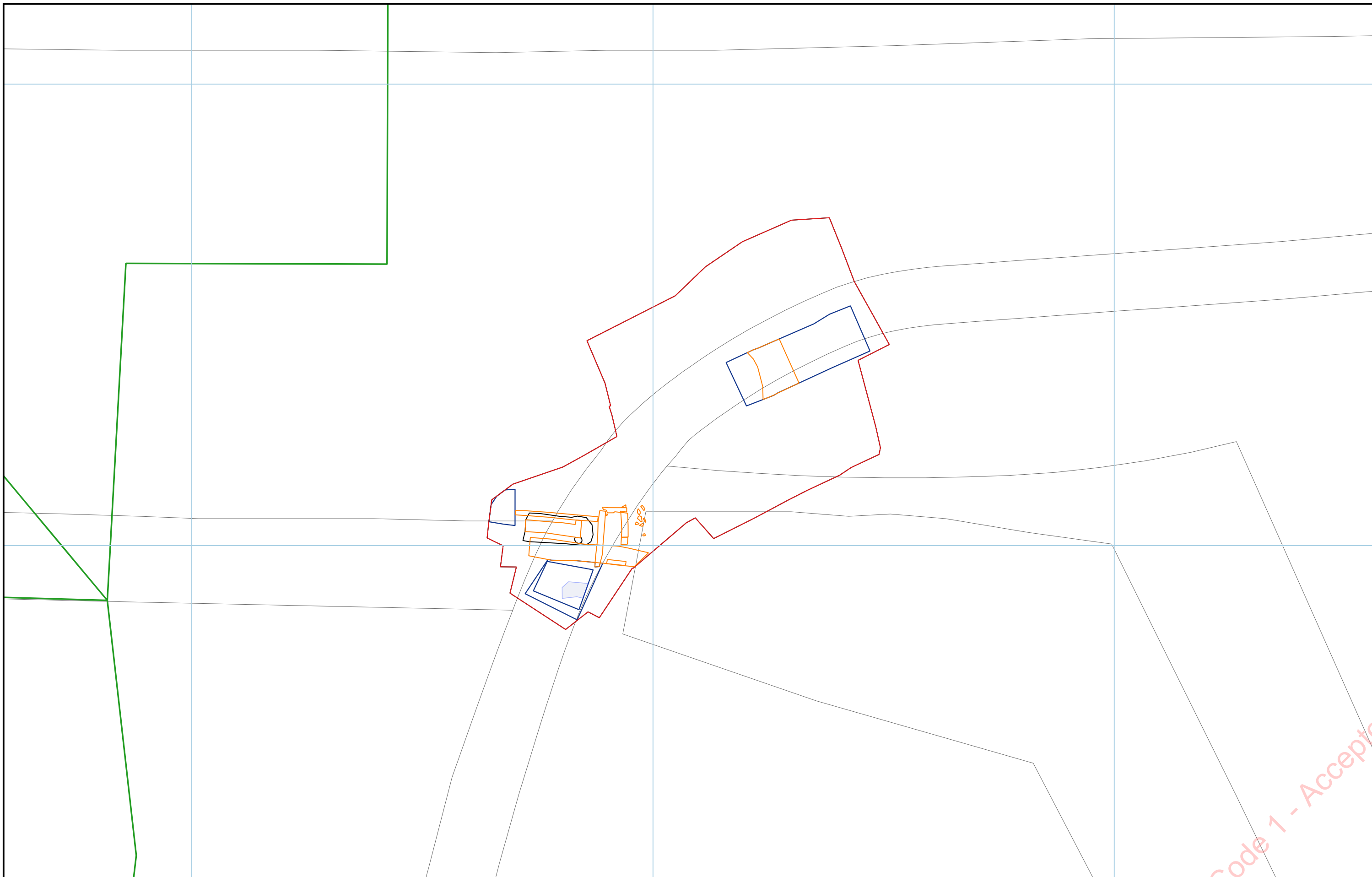
Maps for Survey Report for Construction Integrated Recording at C25148 Chetwode Mill

Document no: 1MC12-EKF-EV-MAP-CS09-000014

Version	Date	Author	Checked by	Approved by	Revision details	EKFB Reviewer (EKFB Contractors only)
C01	19/07/2024	Damiano Portarena	Lei Ding	Katie-Morag Hutton	First issue	Carsten Mieves
C02	13/12/2024	Lei Ding	Katie-Morag Hutton	Mike Kimber	Revised in Line with Comments	Carsten Mieves

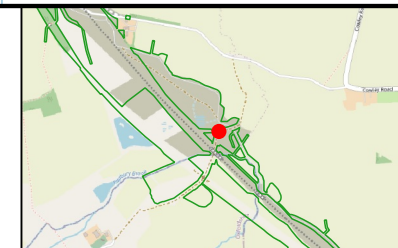
Stakeholder review required (SRR)	Purpose of SRR
<input type="checkbox"/> County / District / London Borough Council	<input type="checkbox"/> Acceptance
<input type="checkbox"/> LOV	<input type="checkbox"/> Approval
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<input type="checkbox"/> NRL	<input type="checkbox"/> Consent
<input type="checkbox"/> TFL	
<input type="checkbox"/> Utilities Company	
<input type="checkbox"/> Other (please specify)	

HS2 Ltd - Code 1 - Accepted



Legend

- LLAU
- Limit of Excavation
- Archaeology
- Modern
- Sondage
- Structure



Map Number	Figure 1
Map Name	Site Plan
HS2 EKFB - 1C21CWMCI - C25148	

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Scale at A3: 1:150

Date: 13/12/24

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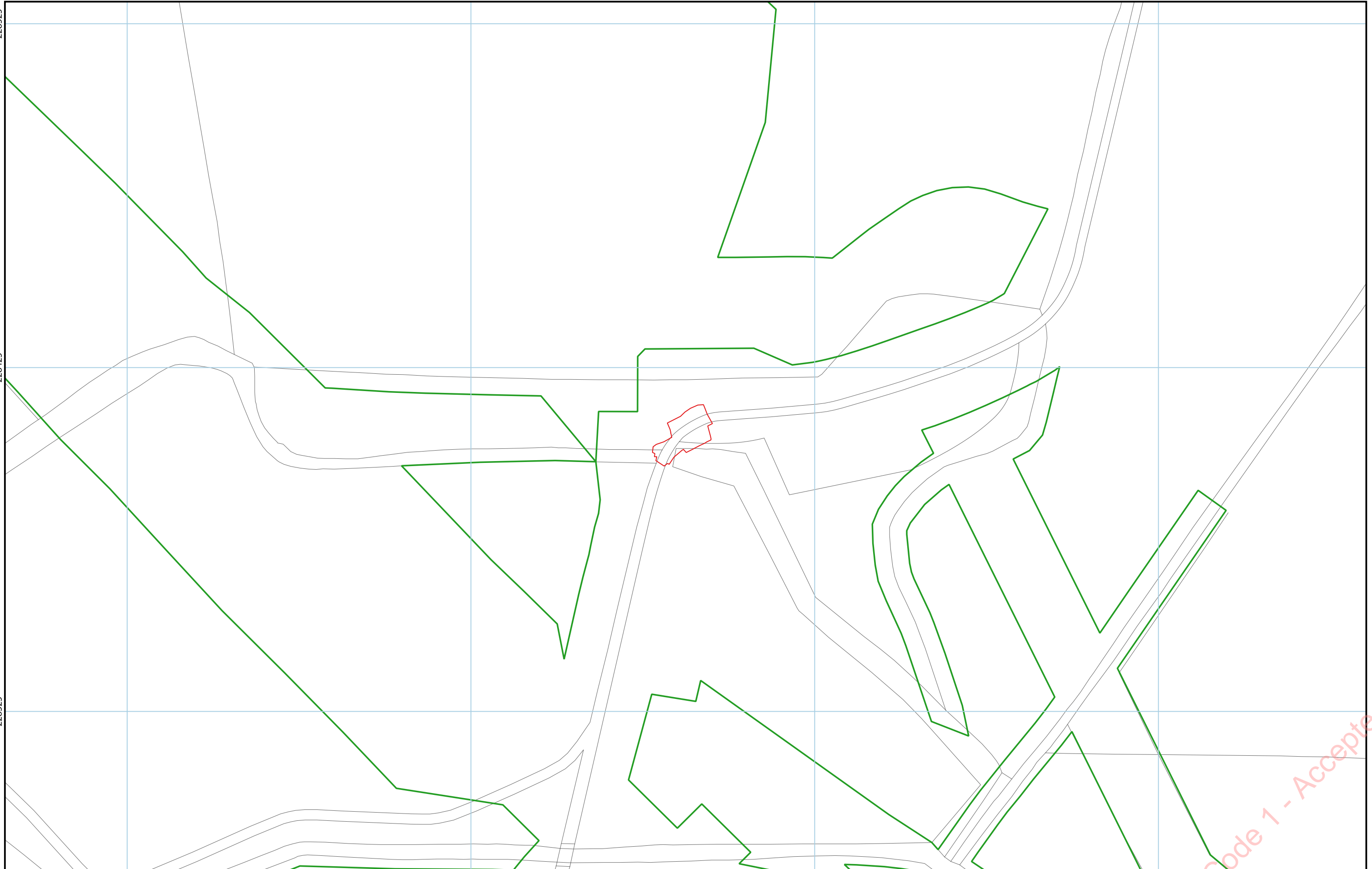
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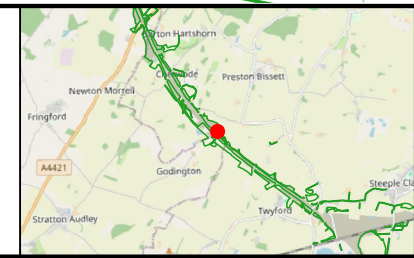
228425

228325



Legend

LLAU Limit of Excavation



Map Number	Figure 2
Map Name	Location Plan
HS2 EKFB - 1C21CWMCI - C25148	

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