

# **1EW03 - Enabling Works Central AWHi Survey Report for Archaeological Recording at Ellesborough Road Hospital (Memorial Garden), Wendover, Buckinghamshire (AC)**

**MDL:**

Document no.: 1EW03-FUS\_IFA-EV-REP-CS03\_CLo6-000029

Revision	Date	Author	Checked by	Approved by	Revision Details:
C01	21/06/2021	F. Giarelli & N. Wells	S. Roper	D. Bonner	First Issue

HS2 Ltd Code 5 - Not Client Reviewed

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# 1 Summary of Archaeological Works

- 1.1.1 This report details the survey methodology for setting out and surveying Archaeological Recording during March 2021 at the Ellesborough Road Hospital site, on land near Wendover, Buckinghamshire (NGR 486591 207421).
- 1.1.2 The land at Ellesborough was targeted to enable the construction of the Wendover Green Tunnel (south) satellite compound. Associated works will include temporary earthworks stockpile storage and an attenuation pond. (Project Plan for Archaeological Recording at Ellesborough Road Hospital ref: 1EW03-FUS-EV-REP-CS03\_CL06-009437)
- 1.1.3 The area of Archaeological Recording was an extension from an area of previous archaeological works in Parcel C21030 north into the Memorial Gardens as set out in AWHi Fieldwork Change Control for Archaeological Recording at Ellesborough Road Hospital, Wendover FCCF 249 (1EW03-FUS-EV-FRM-CS03\_CL06-000029). The total area of the Archaeological Recording was approximately 1600m<sup>2</sup> (Figure 1). The site code for these works was 1C19ERHAR.
- 1.1.4 The previous archaeological works within Parcels C21025, C21029 and C21030 has been summarised in AWHi Interim Report for Archaeological Recording at Ellesborough Road Hospital, Wendover, Buckinghamshire AC 210/16 (1EW03-FUS-IFA-EV-REP-CS03\_CL06-000023). Here, a high density of archaeology was uncovered during the excavation dating from the late Neolithic to the post-medieval periods, with some features of particular significance. The main feature, of national significance, was a 5<sup>th</sup>-6<sup>th</sup> century cemetery of 120 graves containing 122 individuals. The burials were very well preserved with the majority containing a wide variety of high-status grave goods. A significant prehistoric landscape was also exposed, containing elements of the late Neolithic (a possible hengiform monument), Bronze Age (structural and funerary) and Iron Age (structural, quarrying and landscape subdivision).
- 1.1.5 The archaeology found in the extension north into the Memorial Gardens (the current works) dated from the Iron Age to the post-medieval periods. The nationally significant 5<sup>th</sup>-6<sup>th</sup> century cemetery excavated to the south continued into the Memorial Gardens area which contained a further 17 burials. Further evidence of Iron Age activity was also found, comprising a 14-post roundhouse with a north-west facing entrance, an associated inhumation burial and a four-post structure. Two post-medieval quarry hollows were also identified.

## 2 Survey Methodology

### 2.1 Setting Out

- 2.1.1 Setting out is necessary for intrusive archaeological investigations including Archaeological Recording investigation.

- 2.1.2 The purpose is to position the Archaeological Recording Area prior to excavation and any uncovered archaeological features excavated on a location plan. The location, size and objectives of the Archaeological Recording Area are set out in AWHi Fieldwork Change Control for Archaeological Recording at Ellesborough Road Hospital, Wendover FCCF 249 (1EW03-FUS-EV-FRM-CS03\_CLo6-000029) in agreement with the GWSI:HERDS... Each area was assigned a unique ID in accordance with the HS2 Ltd Asset Information Management System (AIMS).
- 2.1.3 All spatial setting out and recording was in accordance with The Ordnance Survey National Grid and Ordnance Survey Newlyn Datum (ODN) as defined by the OS Active Global National Satellite System (GNSS) network and use of a Virtual reference system.

## 2.2 Surveying

- 2.2.1 Two Permanent Ground Markers (PGM) were established for the duration of the project shown in Figure 2, as per technical standards. The locations were established using the Trimble Access software on Trimble Tablet, TSC3 or TSC7 controllers and R10 or R8s GNSS antennae, calibrated on 6<sup>th</sup> April 2021. The survey used reference stations provided by Ordnance Survey. The OS Net base stations used for the survey are in Table 1 below.

**Table 1 List of OS Net base stations**

Base Station	Easting	Northing	Height aOD (m)
GB_Amersham	198584.7029	499706.5497	87.673572
GB_PrincesRisbo	202913.2382	481016.7351	145.659487
GB_Oxford	214164.3519	449130.1886	72.159934

- 2.2.2 At least 2 PGM's (Table 2) were reoccupied during each survey to check the accuracy of the equipment. The survey equipment was purchased or hired from Korec who certified the accuracy of the equipment and performed regular maintenance.

**Table 2 List of PGM co-ordinates**

Station	Easting	Northing	Height aOD (m)
STN01	486,569.34	207,543.90	148.561
STN02	486,593.31	207,503.51	152.603

- 2.2.3 All staff using the equipment were appropriately trained and the survey was undertaken in accordance with the sub-contractor's standards for surveying.
- 2.2.4 All excavation areas and interventions were located to a horizontal accuracy of +/-500mm in relation to the detail illustrated in the contract drawing(s). The corner points of area at modern ground surface level were surveyed with Real Time Kinematic (RTK) Global Navigation Satellite System (GNSS) equipment or other suitable automated equipment referenced from the PGM's.
- 2.2.5 Surface heights and levels across the area were recorded using RTK GNSS and related to PGMs. Ordnance Survey Bench Marks (OSBM) were not used. Levelling accuracy was within 10 mm/k: where 'k' is the total distance levelled in kilometres.

- 2.2.6 INFRA ensured that excavation limits, and significant archaeology detail was surveyed 'as dug' in relation to the project grid before leaving the site. Ground level height data were recorded for each intervention.

## 2.3 Site Location Plan: Archaeological Contexts

- 2.3.1 A 'site location plan', indicating site north was prepared at 1:1500. The location of the site plans is identified using OSGB co-ordinates, as required by technical standards.
- 2.3.2 Section drawings are located on the relevant plan and OSGB co-ordinates recorded using a GNSS system.
- 2.3.3 A record was made 'in plan' of all archaeological deposits as revealed in the investigation. These plans were normally based on digital survey data (digital planning methods were agreed in advance with the HS2 Ltd) supplemented where appropriate by hand drawn records on polyester based drawing film (at a scale of 1:10 or 1:20 unless otherwise agreed with HS2 Ltd). All hand drawn information was digitised (or preferably generated from the digital data in the first instance). Final deliverables will be supplied in an Esri format and adhere to standards set out in the HS2 Ltd Cultural Heritage GIS Standard (HS2-HS2-GI-SPE-000-000004).

# 3 Standards and Guidance

## 3.1 Overview

- 3.1.1 HS2 Ltd has developed a robust suite of technical standards which supports existing archaeological guidance to ensure that works are delivered in a consistent and cohesive manner that reflects the Secretary of State's commitments to the historic environment.
- 3.1.2 To implement the GWSI:HERDS, the sub-contractor complied with and used for the development of historic environment works; the strategies, technical standards and guidance notes set out below in section 3.2.

## 3.2 References

- 3.2.1 All relevant HS2 standards, guidance and procedures in relation to the production of documents and digital materials were followed. This list is not exhaustive:
- HS2 Cultural Heritage GIS Specification (HS2-HS2-GI-SPE-000-000004)
  - The BIM documents set out in High Speed Two Phase One Project Requirements Specification (PRS) (HS2-HS2-SA-SPE-000-000008) (section 2.1.4 Information Management).
- 3.2.2 The following documents provided background information:
- GWSI:HERDS (HS2-HS2-EV-STR-000-000015)
  - Historic Environment Digital Data Management and Archiving Strategy (HS2-HS2-EV-STR-000-000019)

- Historic Environment Physical Archiving Strategy (HS2-HS2-EV-STR-000-000018)
- HS2 AWHi Fieldwork Change Control for Archaeological Recording at Ellesborough Road Hospital, Wendover FCCF 249 (1EW03-FUS-EV-FRM-CS03\_CLo6-000029)
- HS2 AWHi Interim Report for Archaeological Recording at Ellesborough Road Hospital, Wendover, Buckinghamshire AC 210/16 (1EW03-FUS-IFA-EV-REP-CS03\_CLo6-000023)
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- HS2 Project Plan for Archaeological Recording at Ellesborough Road Hospital, Wendover, Buckinghamshire AC 210/16 (1EW03-FUS-EV-REP-CS03\_CLo6-009437)
- HS2 Location Specific Written Scheme of Investigation for Archaeological Recording at Ellesborough Road Hospital, Wendover, Buckinghamshire (1EW03-FUS-EV-REP-CS03\_CLo6-009445)
- Information Paper E8: Archaeology. (LWM-HS2-HY-PPR-000-000042)
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## 4 Archive deposition

- 4.1.1 Following completion of the archaeological evaluation, the subcontractor will provide the contractor with the required data, metadata and digital material as specified in the Historic Environment Digital Data Management and Archiving Procedure (C262-ARP-EV-SPE-000-000003) and the Historic Environment Digital Data Management and Archiving Strategy (HS2 Ltd, 2015a).
- 4.1.2 The security and stability of the digital archive will be ensured from fieldwork through to deposition.
- 4.1.3 The survey data will be edited to ensure that the archive deposited into the public domain is fit for purpose both as a record of the archaeology removed by excavation and to enhance understanding about the site from which it came.
- 4.1.4 The report will be uploaded to the OASIS database as required by HS2.
- 4.1.5 File-level metadata requirements for spreadsheets and databases are specified in the ADS *Guidelines for Depositors* (2014) Spreadsheets, Databases and Statistics Guidelines. These guidelines include a metadata template that can be downloaded in XLS, ODS and CSV formats.

## 5 Glossary of terms

5.1.1 The following terms have been used in this report:

- **Archaeological contractor** – INFRA, the organisation undertaking the specific historic environment works for the *Contractor*.
- **Archaeological recording** - A form of archaeological investigation involving the excavation of an identified area to determine the character and date of any discovered archaeology
- **Contractor** – Fusion; the organisation undertaking the Enabling Works for Area Central on behalf of the Employer.
- **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 combined historic environment investigation programme of assessment, evaluation and investigation.
- **Location Specific Written Scheme of Investigation (LSWSI)** - specification document assembling one or more Project Plans within an area of land defined primarily for construction programme purposes. The LS-WSIs will be agreed with the Project Manager and would provide a costed and programmed approach to delivering outcomes.
- **Project Plan** – 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.



208 000 N

486 000 E

C21030  
C21029  
C21025

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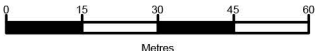
- Legend**
- C21030 including Memorial garden
  - Site extents C21025 and C21029
  - Memorial garden extent



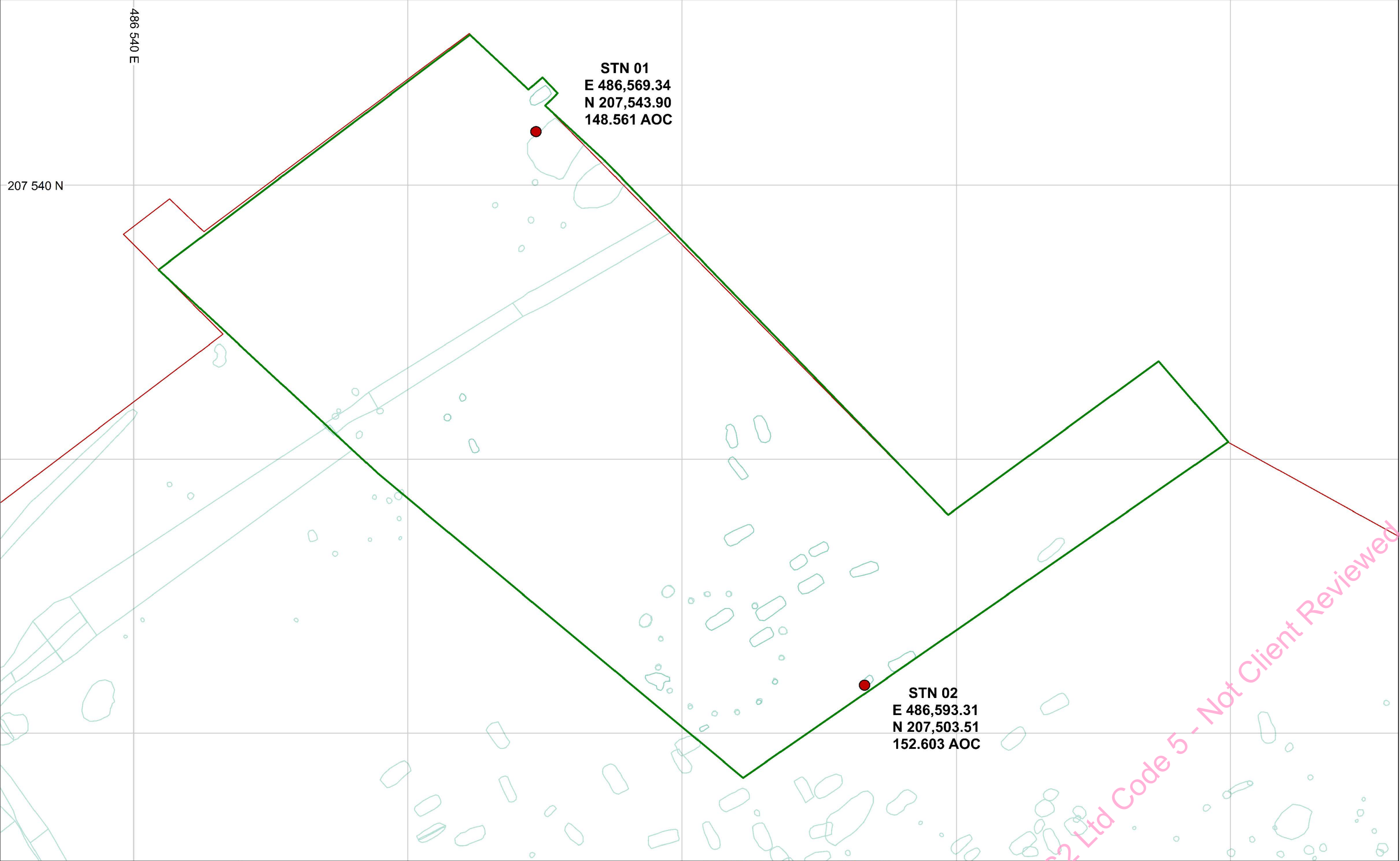
High Speed Two  
Ellesborough Road  
Figure 1. Site location and  
Overview of Archaeological  
Recording Areas  
*Published*

**HS2**

Scale at A3: 1: 1500

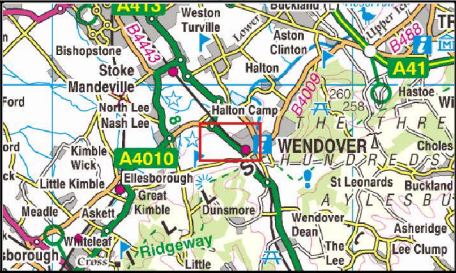






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- Legend**
- C21030 site extent including Memorial Garden
  - Memorial gardens extent
  - Archaeological feature
  - Control Point



High Speed Two  
Ellesborough Road  
Figure 2. Overview of control points  
within Memorial Garden area

Published

Scale at A3: 1: 250

Revision no. C01  
Doc Number: 1EW03-FUS\_IFA-GI-MAP-CS03\_CL06-000023 Date: 19/08/21