East Midlands Gateway Phase 2 (EMG2)

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ENVIRONMENTAL STATEMENT

Volume 2 Technical Appendices

Appendix 14F

EMG2 Preliminary Sources Study Affecting National Highways

July 2025

The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X





GROUND SOLUTIONS

East Midlands Gateway Phase 2 Segro Administration Ltd

Preliminary Sources Study Report affecting National Highways (PSSR)

> BWB Ref. No. 220500 GDMS No. to be advised



GROUND SOLUTIONS

East Midlands Gateway Phase 2 Segro Administration Ltd

Preliminary Sources Study Report affecting National Highways (PSSR)

GDMS No. to be advised

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Table 5:2: Parameter Derivation Methodology

Table 5:3: Summary of Prelim. Anticipated Ranges for Characteristic Parameter Values



DRAWINGS

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EMG2-BWB-GEN-XX-SK-CH-SK023_EMG2 Components Plan
EMG2-BWB-HGN-XX-DR-H-0102_Document 2.8B_Highway Plans General Arrangement Sheet 2 of 3
EMG2-BWB-HGN-XX-DR-H-0103_Document 2.8C_Highway Plans General Arrangement Sheet 3 of 3

APPENDICES

Appendix 1: Groundsure Report Appendix 2: Historical Mapping Appendix 3: Historical Boreholes Appendix 4: GDMS Reports

Appendix 5: Geotechnical Risk Register

Appendix 6: Service Drawings

ANNEX A

Ground Investigation Scoping Report



1. INTRODUCTION

Instruction

1.1 BWB Consulting (BWB) was instructed by Segro Administration Ltd (the Client) to undertake a review of, and submit proposals for, highway improvement works that are necessary for the East Midlands Gateway Phase 2 development, located near Junction 24 of the M1 Motorway, Leicestershire.

Overview

Name of Project: East Midlands Gateway Phase 2

Overseeing Organisation: National Highways (NH)

Overseeing Organisation Ref. No: To be advised.

Principal Contractor: To be advised.

- 1.2 The East Midlands Gateway 2 site is proposed on land to the southwest of the M1 Junction 24 and will comprise a total of approximately 148 hectares including the works associated with M1 Junction 24.
- 1.3 This report comprises a Preliminary Sources Study Report (PSSR) in accordance with National Highways' Design Manual for Roads and Bridges, CD622 'Managing Geotechnical Risk' (Ref.1) and relates to the proposed road improvement works falling within National Highways' (NH) area of authority.
- 1.4 For details refer to the drawings listed below in **Table 1:1**, also attached as **Drawings**.

Table 1:1: Scheme Drawings

Drawing No.	Title
EMG2-BWB-HGN-XX-DR-H-0102	Highway Plans General Arrangement Sheet 2 of 3
EMG2-BWB-HGN-XX-DR-H-0103	Highway Plans General Arrangement Sheet 3 of 3
EMG2-BWB-GEN-XX-SK-CH-019	A50 Westbound Merge, Rev P03

Scheme Overview

1.5 The Ordnance Survey grid reference at the approximate centre of the works related to National Highways infrastructure is 447397 (E), 327034 (N). The site location, (shaded blue), is shown below in **Figure 1:1**.







- 1.6 The proposed works consist of the upgrade of Junction 24 of the M1 to provide access and sufficient capacity to facilitate the development of the East Midlands Gateway 2. The junction upgrade and associated works consist of the following:
 - Construction of a new motorway link road between the M1 Junction 24 northbound and the A50 westbound.
 - Construction of bridge (over or under) the A453.
 - A new diverge will be constructed connecting link road to the westbound A50 which will be widened to the north of the link connection as well as alternations to the M1 exit slip road at Junction 24.
 - Construction of a lane drop on the A50 westbound
 - Widening of the link road between the M1 junction 24A A50 southbound diverge and M1 junction 24 A50 southbound merge from one to two lanes



- Widening of the link road between the M1 junction 24, A50 southbound merge and the M1 junction 24 roundabout from two to three lanes
- Construction of new gantries/signs
- Installation of traffic signs
- Demolition of old / alterations of gantries and gantry mounted signs and signals
- Demolition of the Ashby Road M1 overbridge
- Alterations to the screening bunding between M1 junction 24 and the EMG1 rail terminal including noise attenuation measures
- Widening of the A453 southbound within the junction to provide two right turning lanes into EMG1
- 1.7 The design life of the scheme and its components is to be defined in accordance with the Design Manual for Roads and Bridges and is anticipated to be 120 years.

Previous Reports

- 1.8 A Statement of Intent (SOI) has been prepared by BWB Consulting [Ref.2]. This presents an overview of the proposals and the resulting geotechnical risks and mitigation measures anticipated.
- 1.9 There have been no substantial changes to the scheme proposals since issue of the SOI.
- 1.10 The key geotechnical risks that are envisaged for the project area are detailed in the Geotechnical Risk Register contained in the SOI, and in the updated Risk Register, included as **Appendix 5** of this report. The Geotechnical Risk Register will operate as a live document throughout the development of the project.
- 1.11 In summary, the main potential sources of geotechnical risk identified in the SOI are as follows:
 - Cut/Fill operations working parallel to the live M1 Motorway;
 - Potential for localised areas of soft and/or compressible superficial deposits at new earthworks and road alignment locations leading to differential or excessive settlements;
 - Potential for high water table in the superficial Deposits;
 - Slope instability / variable ground conditions associated with upgrading and constructing embankments associated with the junction alterations;
 - Inadequate consideration of construction sequencing;
 - Inadequate pile capacity for bridge foundations taking the link road [over/under] the A453 resulting in pile failure;
 - Inadequate temporary works; and
 - Underground and overhead services.

East Midlands Gateway Phase 2 Preliminary Sources Study Report affecting National Highways (PSSR) March 2025 EMG2-BWB-XX-XX-T-G-0001_P01



Geotechnical Category

1.12 It is proposed that the Scheme is classified as Geotechnical Category 2 as defined in CD622 and BS EN 1997-1 Eurocode 7, as the proposed construction is not anticipated to comprise exceptional risks or abnormal loading conditions.



2. SOURCES OF INFORMATION, DESK STUDY AND REVIEW OF FINDINGS

General

- 2.1 Sources of geotechnical, geo-environmental, historical, design, as-built, and other information relevant to the scheme are listed below:
 - Geological and related mapping and reporting by the British Geological Survey:
 - o 1:50,000 geological map Sheet no. 141, Loughborough, Solid & Drift [Ref. 3].
 - o 1:10,000 geological map Sheet no. SK42NE, Solid and Drift [Ref. 4].
 - o 1:625,000 Hydrogeological Map [Ref. 5].
 - Records available through the BGS online 'Geology of Britain viewer', including historic exploratory hole logs [Ref. 6] (**Appendix 3**).
 - Service / utilities records and drawings (Appendix 6).
 - Existing geotechnical investigation, design and/or As Built reports and assets available through the National Highways Geotechnical and Drainage Management Service (GDMS).
 - Existing information available through the National Highways Integrated Asset Management Information System (IAMIS).
 - Commercially/publicly available desk study information:
 - o Commercial geo-environmental searches from Groundsure® (Appendix 1)
 - Historical Ordnance Survey (OS) maps (Appendix 2)
 - o Aerial photographs (Google Earth)
 - Unexploded Ordnance (UXO) risk maps

Geotechnical and Drainage Management Service (GDMS)

- 2.2 The Geotechnical and Drainage Management Service (GDMS), formerly HAGDMS, was interrogated for the following:
 - Geotechnical assets and last complete inspection date
 - Geotechnical and geo-environmental investigations and reports

Geotechnical Assets

2.3 Existing geotechnical assets within the scheme section listed on GDMS are summarised in **Table 2:1** below.

Table 2:1: Existing Geotechnical Assets

GDMS ID.	Туре	Location	Max Height (m)	Max Angle (°)	Length (m)	Last Complete Inspection	CS641 Feature Grade
			(m)	(*)		Date	



20911	00010	Fuelly and the surf	141 Cli- D-I	0.1	00	017	00/01/0001	NID
20912	20910	Embankment	M1 Slip Rd	3.1	28	217	28/01/2021	NR
24418 Embankment M1 Slip Rd 3.6 27 299 28/01/2021 NR 42051 Embankment M1 Main 4 30 370 28/01/2021 NR 42052 Cutting M1 Main 11.23 24 550 28/01/2021 NR 42053 Cutting M1 Main 1.5 22 284 28/01/2021 NR 42054 At Grade M1 Minin 1.5 22 284 28/01/2021 NR 42055 Embankment M1 Slip Rd 2.74 23 352 28/01/2021 NR 42056 Embankment M1 Minin 3.3 24 206 28/01/2021 NR 42057 Embankment M1 Minin 3.7 18 200 28/01/2021 NR 42059 Embankment M1 Minin 11.74 22 365 28/01/2021 NR 42060 Cutting M1 Main 11.74 28 454 28/01/2021 NR			_		-		-	
42051			·				-	
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42053 Cutting M1 Main 2.74 23 399 28/01/2021 NR 42054 A1 Grade M1 Main 1.5 22 284 28/01/2021 NR 42055 Embankment M1 Slip Rd 2.74 23 352 28/01/2021 NR 42056 Embankment M1 Slip Rd 5.5 30 215 28/01/2021 NR 42057 Embankment M1 Main 3.7 18 200 28/01/2021 NR 42059 Embankment M1 Main 4.7 22 365 28/01/2021 2 42060 Cutting M1 Main 4.7 22 365 28/01/2021 2 42061 Cutting M1 Main 11.71 28 454 28/01/2021 2 42062 Embankment A453 Main 10.6 32 62 10/01/2019 NR 44354 Embankment A453 Main 10.6 32 62 10/01/2019 NR			_					
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44309 Embankment A453 Main 10.6 32 62 10/01/2019 NR 44354 Embankment A453 Main 10.6 32 62 10/01/2019 NR 44358 Embankment A453 Main 7.4 26 344 10/01/2019 NR 50009 At grade A453 Main 0 0 141 28/01/2021 NR 50012 At Grade A453 Main 0 0 431 03/03/2024 NR 50015 At Grade A453 Main 0 0 370 03/03/2024 NR 50016 Embankment A453 Main 0 0 370 03/03/2024 NR 50018 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A55 Main 0 0 1.71 03/03/2024 NR 50240 At Grade A50 Sijp Rd 0 0 1.044 11/12/2018 2	42061	Cutting	M1 Main	11.41	25	529	03/12/2020	2
44354 Embankment A453 Main 10.6 32 62 10/01/2019 NR 44358 Embankment A453 Main 7.4 26 344 10/01/2019 NR 50009 At grade A453 Main 0 0 141 28/01/2021 NR 50012 At Grade A453 Main 0 0 431 03/03/2024 NR 50015 At Grade A453 Main 0 0 370 03/03/2024 NR 50016 Embankment A453 Main 2.96 25 314 03/03/2024 NR 50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 8.66 24 512 03/03/2024 NR 52440 At Grade A50 Nian 1.39 10 316 11/12/2018 2	42062	Embankment	M1 Main	11.74	28	454	28/01/2021	NR
44358 Embankment A453 Main 7.4 26 344 10/01/2019 NR 50009 At grade A453 Main 0 0 141 28/01/2021 NR 50012 At Grade A453 Main 0 0 431 03/03/2024 NR 50015 At Grade A453 Main 0 0 370 03/03/2024 NR 50016 Embankment A453 Main 2.96 25 314 03/03/2024 NR 50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 Roundabout R 512 03/03/2024 NR 52440 At Grade A50 Nain 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR	44309	Embankment	A453 Main	10.6	32	62	10/01/2019	NR
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50012 At Grade A453 Main 0 0 431 03/03/2024 NR 50015 At Grade A453 Main 0 0 370 03/03/2024 NR 50016 Embankment A453 Main 2.96 25 314 03/03/2024 NR 50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 3.66 24 512 03/03/2024 NR 50240 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52440 At Grade A50 Main 1.39 10 316 11/12/2018 2 52411 At Grade M50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR	44358	Embankment	A453 Main	7.4	26	344	10/01/2019	NR
50015 At Grade A453 Main 0 0 370 03/03/2024 NR 50016 Embankment A453 Main 2.96 25 314 03/03/2024 NR 50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 3.66 24 512 03/03/2024 NR 502440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Slip Rd 0.2 27 154 28/01/2021 NR	50009	At grade	A453 Main	0	0	141	28/01/2021	NR
50016 Embankment A453 Main 2.96 25 314 03/03/2024 NR 50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 3.66 24 512 03/03/2024 NR 52440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Slip Rd 0.2 27 154 28/01/2021 NR	50012	At Grade	A453 Main	0	0	431	03/03/2024	NR
50017 At Grade A50 Main 1.37 20 46 03/03/2024 NR 50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 3.66 24 512 03/03/2024 NR 52440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR	50015	At Grade	A453 Main	0	0	370	03/03/2024	NR
50018 At Grade A453 Main 0 0 171 03/03/2024 NR 50023 Embankment A45 3.66 24 512 03/03/2024 NR 52440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Slip Rd 0.2 27 154 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 188 28/01/2021 NR 62642 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0	50016	Embankment	A453 Main	2.96	25	314	03/03/2024	NR
50023 Embankment A45 Roundabout 3.66 24 512 03/03/2024 NR 52440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 <	50017	At Grade	A50 Main	1.37	20	46	03/03/2024	NR
Roundabout Roundabout 1,044 11/12/2018 2 52440 At Grade A50 Slip Rd 0 0 1,044 11/12/2018 2 52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Emb	50018	At Grade	A453 Main	0	0	171	03/03/2024	NR
52441 At Grade A50 Main 1.39 10 316 11/12/2018 NR 54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 NR 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR </td <td>50023</td> <td>Embankment</td> <td></td> <td>3.66</td> <td>24</td> <td>512</td> <td>03/03/2024</td> <td>NR</td>	50023	Embankment		3.66	24	512	03/03/2024	NR
54218 At Grade M1 Main 0 0 96 28/01/2021 NR 54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 2 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 N/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 N	52440	At Grade	A50 Slip Rd	0	0	1,044	11/12/2018	2
54219 Embankment M1 Slip Rd 4.4 27 201 27/02/2024 4 62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 2 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 NR 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 6 22 198 18/01/2021 <t< td=""><td>52441</td><td>At Grade</td><td>A50 Main</td><td>1.39</td><td>10</td><td>316</td><td>11/12/2018</td><td>NR</td></t<>	52441	At Grade	A50 Main	1.39	10	316	11/12/2018	NR
62640 Embankment M1 Main 6.84 20 207 28/01/2021 NR 62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 2 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021	54218	At Grade	M1 Main	0	0	96	28/01/2021	NR
62641 At Grade M1 Slip Rd 0.2 27 154 28/01/2021 NR 62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 2 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021	54219	Embankment	M1 Slip Rd	4.4	27	201	27/02/2024	4
62642 Embankment M1 Slip Rd 2.7 27 188 28/01/2021 2 62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021	62640	Embankment	M1 Main	6.84	20	207	28/01/2021	NR
62643 Embankment M1 Slip Rd 7.5 18 192 28/01/2021 NR 64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021	62641	At Grade	M1 Slip Rd	0.2	27	154	28/01/2021	NR
64288 Embankment A50 Slip Rd 5.07 25 220 11/12/2018 0 64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	62642	Embankment	M1 Slip Rd	2.7	27	188	28/01/2021	2
64442 Embankment A453 Main 3.7 24 109 10/01/2019 NR 64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	62643	Embankment	M1 Slip Rd	7.5	18	192	28/01/2021	NR
64443 Embankment A453 Main 6.1 26 446 10/01/2019 0/3* 65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	64288	Embankment	A50 Slip Rd	5.07	25	220	11/12/2018	0
65008 At Grade M1 Slip Rd 0 0 366 03/12/2020 NR 65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	64442	Embankment	A453 Main	3.7	24	109	10/01/2019	NR
65009 At Grade M1 Slip Rd 0 0 376 03/12/2020 NR 65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	64443	Embankment	A453 Main	6.1	26	446	10/01/2019	0/3*
65014 Embankment A50 Slip Rd 6 22 198 18/01/2021 NR 65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	65008	At Grade	M1 Slip Rd	0	0	366	03/12/2020	NR
65016 Embankment M1 Slip Rd 5.6 22 179 18/01/2021 NR 65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	65009	At Grade	M1 Slip Rd	0	0	376	03/12/2020	NR
65016 Embankment M1 Slip Rd 4.6 19 122 18/01/2021 NR 65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	65014	Embankment	A50 Slip Rd	6	22	198	18/01/2021	NR
65017 At Grade M1 Main 0 0 508 18/01/2021 NR 65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	65016	Embankment	M1 Slip Rd	5.6	22	179	18/01/2021	NR
65075 Cutting M1 Main 5.3 26 43 03/12/2020 NR	65016	Embankment	M1 Slip Rd	4.6	19	122	18/01/2021	NR
	65017	At Grade	M1 Main	0	0	508	18/01/2021	NR
65076 Cutting M1 Main 6.5 20 65 03/12/2020 0	65075	Cutting	M1 Main	5.3	26	43	03/12/2020	NR
	65076	Cutting	M1 Main	6.5	20	65	03/12/2020	0



- * Feature Gradings differ along areas on the same Asset NR = Not Recorded
- 2.4 Assets that do not have a CS641 Feature Grade in **Table 2:1** above, are recorded on the GSMS as approved, with an unclassified feature grade or gradings were found to be not applicable. This may be due to the assets just having been constructed.
- 2.5 Geotechnical assets listed with no gradings may be able to be assessed during a site walkover during proposed site investigations (see **Section 8**).

Geotechnical and Geo-environmental Reports

2.6 Twenty-three engineering investigation and report records were obtained from GDMS, relevant to the scheme area. Reports referenced in this PSSR are summarised below.

Table 2:2: GDMS Geotechnical Reports

GDMS ID	Title	Scheme	Author	Date
4068	Site Investigation	Clifton to M1 Dualling	Leonard Fairclough Limited	1973
3678	Ground Investigation	A42 Castle Donington North	Soil Mechanics Limited	1988
9826	Roadworks Geotechnical Design Report	A42 Castle Donington North – Contract 2: M1 Widening	Scott Wilson Kirkpatric & Partners	1988
10075	Ground Investigation and Interpretive Report	A453 (T): Clifton to M1 (Junction 24)	DHV Burrow-Crocker Consulting Ltd	1991
18103	Geotechnical Desk Study	M1 Widening, Junctions 23A to 28	Travers Morgan Ltd	1992
18257	Geotechnical Desk Study	M1 Widening, Junctions 23A to 28	Travers Morgan Ltd	1993
24496	A453 and M1 Motorway Crossing Report	East Midland Airport Sewer Requisition	Charles Haswell and Partners Limited	1997
9172	Ground Investigation	Nottinghamshire/Derbyshire COA NMCS2 Upgrade	Norwest Holst Soil Engineering Ltd	1999
11663A	Ground Investigation	Nottinghamshire/Derbyshire COA NMCS2 Upgrade	WSP Environmental Ltd	1999
20529	Ground Investigation	Scheme 758, A50, Abnormal Load Laybys	Nicolas Colton Geotechnical	2005
19183	Preliminary Sources Study Report	M1 Widening Junctions 21 – 30	ARUP	2005
24067	Ground Investigation	A453 Widening M1 Junction 24 to A52 Nottingham	Geotechnics Ltd	2007
25361	Preliminary Geotechnical Report	M1 Widening Junctions 21- 30	ARUP	2007
22126	Factual Report on Ground Investigation	M1 Widening Junctions 21- 30	FUGRO Engineering Services Limited	2007



24066	Geotechnical Report	Widening M1 Junction 24 to A52 Nottingham	Highways Agency	2008
22132	Preliminary Geotechnical Report	M1 Widening: Junction 21 – 30	Highways Agency	2008
29798	Preliminary Sources Study Report	Zone 3 Major Trunk Improvements	RSK	2013
46351	Factual Ground Investigation Report	Zone 3 Major Trunk Improvements	RSK	2013
28929	Ground Investigation Report	Smart Motorways Programme M1 Junction 23a to 25	ARUP	2016
29152	Geotechnical Design Report	Smart Motorways Programme M1 Junction 23a to 25	ARUP	2017
29800	Geotechnical Design Report	East Midlands Gateway Strategic Rail Freight Interchange, M1 Overbridge	Hydrock	2017
30523	Geotechnical Feedback Report	Smart Motorways Programme M1 Junction 23a to 25	ARUP	2021
48534	Combined PSSR- GIR-GDR	Near M1 J23a to J25	SMP Alliance	2024

Integrated Asset Management Information System

2.7 The National Highways Integrated Asset Management Information System (IAMIS) has been reviewed and the existing structures located within the site area are referenced below in **Table 2:3.**

Table 2:3: IAMIS Structures Records

IAMIS Reference	Structure	Scheme	Description

Drawings

2.8 Scheme drawings referenced in this PSSR are listed in **Table 1:1** and are presented in the **Drawings** section of this report.



Historic Exploratory Hole Records

- 2.9 The British Geological Survey (BGS) provides access to historical exploratory hole and other records through the BGS Onshore Geolndex. Historical exploratory hole logs were also obtained from the sources listed in **Section 2.1** of this PSSR and are described further in **Section 3**.
- 2.10 Exploratory hole records referenced in this PSSR are included in Appendix 3.

Geotechnical Laboratory Test Data

- 2.11 Geotechnical laboratory data is available for soil and rocks from the previous investigations noted above, included in **Appendix 4**. Tests typically comprised:
 - Moisture Content;
 - Atterberg Limits Classification;
 - pH, water soluble sulphate, acid soluble sulphate and/or total sulphur;
 - Particle Size Distribution determination:
 - Unconsolidated Undrained Triaxial Compression;
 - Consolidation Testing;
 - Triaxial Effective Stress;
 - Uniaxial Compressive Strength;
 - Point Load Index Testing.

Project-specific Ground Investigation

2.12 No project specific ground investigation has been carried out to date. A summary of the proposed project specific ground investigation is included in this report as **Annex A**.

Existing Services / Utilities

- 2.13 Five services / utilities plans have been identified. The plans are presented in Appendix6, namely:
 - 4069-UCL-DR-MU-FEA-001, Utility Composite Drawing, East Midlands Gateway (Phase 2), M1 Junction 24 (Overview), Rev A, dated August 2024;
 - 4069-UCL-DR-MU-FEA-001, Existing Utility Composite Drawing, East Midlands Gateway (Phase 2), M1 Junction 24 (Sheet 1 of 4), Rev A, dated August 2024;
 - 4069-UCL-DR-MU-FEA-001, Existing Utility Composite Drawing, East Midlands Gateway (Phase 2), M1 Junction 24 (Sheet 2 of 4), Rev A, dated August 2024;
 - 4069-UCL-DR-MU-FEA-001, Existing Utility Composite Drawing, East Midlands Gateway (Phase 2), M1 Junction 24 (Sheet 3 of 4), Rev A, dated August 2024;
 - 4069-UCL-DR-MU-FEA-001, Existing Utility Composite Drawing, East Midlands Gateway (Phase 2), M1 Junction 24 (Sheet 4 of 4), Rev A, dated August 2024;



3. SITE DESCRIPTION

- 3.1 The site comprises raised sections of motorways and A roads. Proposed works to the M1 extend from just north of M1 J23 to just before the M1 J24. A small section of the A453 east bound connecting to the M1 south is included in the works, along with both slip roads east and west bound connecting the M1 to the A50.
- 3.2 Surrounding land uses are summarised in **Table 3:1.**

Table 3:1 Surrounding Land Use

Surrounding land Use	
North	Continuing M1, Lockington Tarmac Quarry and agricultural fields
East	Kegworth and agricultural fields
South	Continuing M1 and agricultural fields
West	East Midlands Airport

M1 Junction 24 Improvements

- 3.3 This largely covers the road network at M1 Junction 24. Currently, Junction 24 only provides access to the A50 westbound via Junction 24 roundabout. A new link road connecting M1 northbound to A50 westbound is proposed with the construction of a bridge (under or over) the A453. Construction of a new diverge connection from the link road to the westbound A50 which will be widened as well as alternations to the M1 exit slip road at Junction 24.
- 3.4 From the A50 eastbound to M1 Junction 24 southbound it is proposed widening of the link road from M1 junction 24 A50 southbound from one lane to two lanes as well as widening of the link road between M1 junction 24A A50 southbound merge and M1 Junction 24 roundabout from two lanes to three lanes and construction of a lane drop on the A50 westbound.
- 3.5 Additionally, alterations to road markings and signage are proposed for the A453 northbound approach road and A453 southbound approach road.
- 3.6 The extent of the National Highways area with the potential to be affected by the proposed works covers the roundabout at M1 junction 24, A50 westbound north of M1 junction 24 and A453 to the east of M1 junction 24.

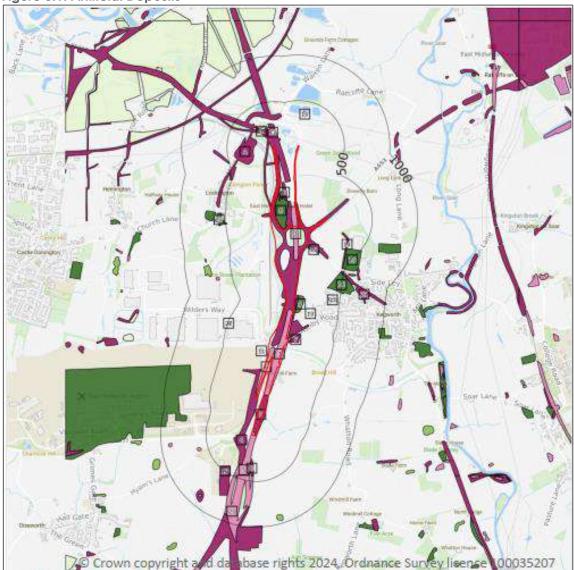
Geology

Overview

3.7 Information published by the British Geological Survey (BGS) shows localised artificial deposits along the M1 corridor, indicating areas which have been artificially raised and where the motorway has been constructed on embankment. A map extracted from the Groundsure® Report is presented as **Figure 3:1** below. The lighter pink areas indicate areas of worked ground and the darker pink areas of Made Ground.

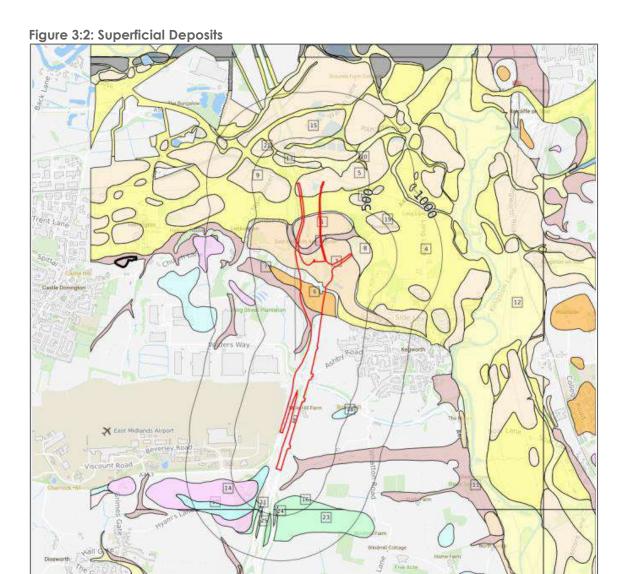


Figure 3:1: Artificial Deposits



- 3.8 BGS data records various superficial deposits across the site, as well as an area where superficial deposits are absent in the south. A map extracted from the Groundsure® Report is presented as **Figure 3:2**. It is emphasised that some variation in the location and extent of these soils is to be expected.
- 3.9 Superficial deposits mapped to the north include:
 - Wanlip Member (shown as No1 and No3).
 - Head Deposits (shown as No2 and No7).
 - Hemington Member (shown as No4).
 - Holme Pierrepont Sand and Gravel Member (shown as No5).
 - Eggington Common Sand and Gravel Member (shown as No6).





Bedrock Deposits

3.10 Similar to the Superficial Deposits, BGS data records various bedrock across the site. A map extracted from the Groundsure® Report is presented as **Figure 3:3.**

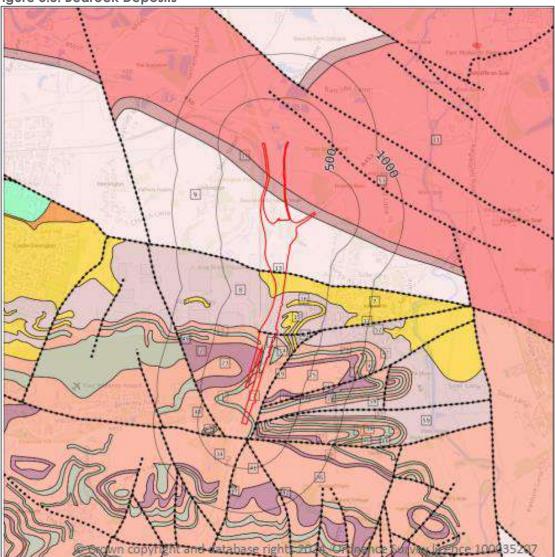
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- 3.11 Bedrock deposits mapped across the site include:
 - Gunthorpe Member Siltstone, Dolomitic (shown as No1 and No5).
 - Diseworth Sandstone (shown as No2).
 - Gunthorpe Member Mudstone (shown as No3 and No6).
 - Tarporley Siltstone Formation (shown as No4 and No8)
 - Helsby Sandstone Formation (shown as No7)
 - Edwalton Member (shown as No9)
 - Arden Sandstone Formation (shown as No10)



- Branscombe Mudstone Formation (shown as No11)
- 3.12 Two bedrock faults (inferred) are mapped through the centre of the site.





Historical BGS Exploratory Hole Logs

- 3.13 Multiple historical hole logs are located along the line of the M1, with occasional locations positioned up to 50m to the east and west. It should be noted that many of these logs are dated therefore ground levels are likely to have altered.
- 3.14 The BGS boreholes indicate that varying depths of superficial deposits are present in the overlying the Mercia Mudstone, in the north. To the very south, several logs record weathered bedrock from ground level or directly underlying Topsoil deposits, as would be expected from the geological mapping.



Topsoil

- 3.15 Topsoil is recorded in the majority of the historical logs from ground level to an average depth of 0.40m bgl. Most logs do not have a composition description.
- 3.16 It is expected that composition and thickness will vary locally across the works area if encountered.

Made Ground/Fill

- 3.17 Made ground deposits are recorded in the majority of exploratory hole locations in the north and centre of the site, underlying Topsoil or from ground level.
- 3.18 Deposits were encountered as both cohesive and granular deposits, ranging from gravelly or sandy clay with quartz and flint gravels to sand and gravels of mixed lithologies. Slag, ash, PFA and occasional clinker and brick were noted amongst Made Ground descriptions.
- 3.19 Fill and possible fill was recorded within three locations, described as sand assorted gravels or on one occasion, a sandy clay with mudstone and sandstone gravels.

Superficial Deposits

3.20 The BGS logs indicate that varying depths of glacial deposits are present overlying the bedrock geology. Descriptions of compositions were also greatly variable ranging from firm sandy clays and sandy silts to dense gravelly sands.

Bedrock Geology

- 3.21 The bedrock geology of the Mercia Mudstone Group was largely encountered across the site, often referred to in older dated logs as Keuper Marl. In the south of the site, several logs record weathered Keuper Marl from either Ground Level or underlying Topsoil deposits.
- 3.22 The Mercia Mudstone Group bedrock is often recorded as a weathered mudstone with interbedded siltstone and occasionally sandstone.
- 3.23 Logs recorded pre 1980, often record brief details in description. The more detailed logs include descriptions of compositions and lithorelic details and often include a weathering grade for the stratum described. Weathering grades on the logs are noted to be between 1 (non-weathered) to 4a (highly weathered).
- 3.24 Anticipated weathering profiles within the scheme comprise fully weathered material comprising clays, overlying partially weathered mudstone with interbedded siltstone and sandstone over non weathered bedrock.

Groundwater

3.25 Numerous groundwater strikes are recorded within the exploratory hole locations across the site, recorded at depths between 1.00m and 9.80m bgl.



Hydrogeology

Aquifer Designation

- 3.26 The Environment Agency (EA) classifies the Superficial deposits at the site as follows:
 - Wanlip Member: Secondary A Aquifer
 - Head Deposits: Secondary Undifferentiated Aquifer
 - Hemington Member: Secondary A Aquifer
 - Holme Pierrepont Sand and Gravel Member: Secondary A Aquifer
 - Eggington Common Sand and Gravel Member: Secondary A Aquifer
- 3.27 The Environment Agency (EA) classifies the Bedrock at the site as follows:
 - Gunthorpe Member Siltstone, Dolomitic: Secondary B Aquifer
 - Diseworth Sandstone: Secondary B Aquifer
 - Gunthorpe Member Mudstone: Secondary B Aquifer
 - Tarporley Siltstone Formation: Secondary B Aquifer
 - Helsby Sandstone Formation: Principal Aquifer
 - Edwalton Member: Secondary B Aquifer
 - Arden Sandstone Formation: Secondary A Aquifer
 - Branscombe Mudstone Formation: Secondary B Aquifer
- 3.28 Principal Aquifers are defined as Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale.
- 3.29 Secondary A Aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
- 3.30 Secondary B Aquifer are defined as predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons, and weathering.
- 3.31 Undifferentiated Secondary Aquifer are assigned in cases where it has not been possible to attribute either a Secondary A or B category to a rock type.
- 3.32 The site is not located within an EA designated Source Protection Zone. A small section through the centre of the site, lies within two Water Framework Directive Groundwater Bodies; Soar PT Sandstone and Soar Secondary Combined. The Soar PT Sandstone received an overall rating of poor in 2019, with the Soar Secondary Combined received an overall rating of Good, again in 2019.

BGS Borehole and Third-Party Data



- 3.33 The collected borehole data for the site record groundwater strikes in some locations, at varying depths. Groundwater was recorded mostly within granular bands/horizons, recorded as strikes and seepages.
- 3.34 The third-party Ground Investigation Report, undertaken by Amey ARUP recorded groundwater strikes and recorded standing groundwater in most wells during the subsequent monitoring period. Intergranular deposits underlying the site are known to have moderate to very high permeability.

Abstractions, Discharge Consents and Pollution Incidents

- 3.35 Part of the A50 westbound, joining the M1 southbound motorway, is within an active groundwater abstraction licence area, licenced to Tarmac Trading Limited.
- 3.36 There are no discharge consents listed as issuing to groundwater at the site or within the surrounding area.
- 3.37 No pollution incidents are listed as impacting upon groundwater within 500m of the site.

Groundwater Flooding

3.38 The majority of the site is located within an area of low to negligible risk of flooding. A small area to the northeast of j24 roundabout is indicated to be at a moderate risk, with a section of the M1 merger road to the A50 westbound indicated, to be at a high risk.

Hydrology

Surface Water Features

3.39 Numerous surface water features have been identified on site and within the immediate surrounding areas, consisting of surface and culverted inland rivers not influenced by normal tidal action. A full list of these surface water features can be found within the Groundsure® Report, presented as **Appendix 1**.

Abstractions, Discharge Consents and Pollution Incidents

- 3.40 There are no current licenced abstraction or discharge consents relating to surface waters on site.
- 3.41 No pollution incidents are listed as impacting upon surface waters within 500m of the site.

Flood Zones

3.42 The majority of the site is not indicated to lie within a Zone 2 or 3 flood zone with only two small sections to the north, along the A50 slip roads indicated to be within flood zones 2 and 3.



Ground Instability Risk

- 3.43 Natural ground instability risks are anticipated to be low to negligible across the site due to the competent nature of the underlying deposits. Risks are expected to be localised in areas of superficial and artificial ground or associated with existing surface water features. Risk designations from Groundsure mapping (Appendix 1) and inferences from an overview of existing exploratory hole logs, are summarised below;
 - The site is not located within an area associated with coal mining.
 - The Groundsure Report references cuttings and embankments observed from historical mapping relating to the existing M1 junction 24.
 - Potential for shrinkage and swelling through change in water content is expected to be very low to negligible.
 - Potential for freeze/thaw sensitivity is expected to be low in both superficial deposits and solid geology.
 - Collapse of soils, subsidence or landslides are not anticipated to be a risk within the scheme boundaries.

Historical Land Use

3.44 Historical Ordnance Survey (OS) mapping for the site area has been reviewed. These maps and plans date from 1883 to 2024. The historical plans reviewed are provided in **Appendix 2**. The key points of the historical development of the site and surrounding area are summarised in **Table 3:1**. All distances quoted are approximate.

Table 3:2: Key Characteristics of Historical Development

Dates	On Site	Off Site
1883 – 1938	The earliest site plans show the site as largely undeveloped, agricultural land. a small residence, labelled Highfield House is located to the south. Two roads run through the north and south of the site. In 1922, Rises are mapped in the south of the site.	The village of Keyworth is mapped 750m to the east of the site boundary and the village of Lockington is mapped 500m to the northwest. A small GRAVEL PIT and several small lakes are mapped 250m to the north. In 1901, a covered Reservoir is mapped 100m to the southwest. Rises are also mapped in the same area from 1919.
1921 - 1955	In 1921, AIR VALVES and rises are mapped along the road running through the north of the site.	In 1921, the gravel pit to the north is no longer mapped and AIR VALVES and a WASHOUT CHAMBER and sluice valves are mapped.
1966	In 1966, construction of the M1 begins through the site and the A6 to the north, with EARTHWORKS mapped along the sides of the roads.	In 1966, the air valves and washout chamber to the north are no longer mapped, with the M1 having been constructed in the same area.



1971 - 1978	Ashby road is now mapped to the south and in 1982 is widened and labelled as the A453.	The reservoir and rises are no longer mapped 100m to the southwest.
1991 - 2010	No significant changes noted.	In 1991, a roundabout Is mapped 100 to the south of the site with the A42 mapped immediately off the south of the roundabout. The East Midlands Airport Hotel is mapped immediately between the M1 and the A50 westbound off J24 to the north, with a Flood Prevention Lagoon mapped along the northeastern boundary. An unspecified FACTORY is mapped 500m to the northeast. Weirs and Wells are mapped 500m to the southeast. In 2010, Pegasus Business Park and a hotel are mapped 500m and 750m to the southwest.
2024	To the north, a slight road layout change to the M1 southbound is noted.	to the southwest of the site and a SERVICES with a PETROL STATION is mapped 400m to the south, to the north, the A50 eastbound is now directly joined to the M1.

Historical Aerial Photography and Imagery

3.45 Aerial photographs/imagery available through Google Earth and included within the Groundsure report show the site in the same layout at the time of writing.

Operational / Company Records

3.46 No operational records have been made available for review as part of this assessment.

Planning History

3.47 The North West Leicestershire District Council was accessed on 22nd January 2025. No planning applications have been submitted in the last 5 years for the site and no pertinent environmental information was available for review.

Coal Mining

3.48 The site is not located within a coal mining reporting area.

Mining and Mineral Extraction

3.49 No underground workings, or mineral extractions are recorded on site.

Historical Land Waste Management

3.50 A full listing of EA, BGS and Local Authority recorded landfills, waste exemptions and waste sites are provided in the Groundsure report presented in **Appendix 1**.



- 3.51 One EA landfill site is located 399m to the north of the site, recorded to receive inert waste, operated by Tarmac Aggregates Limited. No other active or historical EA landfill sites are recorded within 500m of the site.
- 3.52 One waste exemption is listed on site, located at the A50 from M1 J24 to the B5010 roundabout, recorded as a using waste exemption, use of waste in construction.
- 3.53 Multiple waste exemptions are listed within 500m of the site, with the closest records relating to using waste, treating waste and disposing of waste, 31m to the south at Mole Hill Farm.
- 3.54 The historical landfill sites are considered to be too far away from the proposed site to represent a ground gas risk.
- 3.55 Waste exemptions are required for handling small quantities of waste (below the thresholds of waste permitting legislation) or for low-risk waste management activities. Therefore, BWB do not consider them to represent a significant risk to the site.

Unexploded Ordnance (UXO) Risk

3.56 Regional risk maps accessed online from the Zetica UXO website indicate the potential of UXO is low risk within the site boundary.

Ground Gas and Radon

- 3.57 The localised Made Ground mapped on site and within the surrounding area, are associated with areas which have been artificially raised, where the motorway has been constructed on embankment and not considered to represent a possible source of ground gas.
- 3.58 The majority of the site is located in an area where less than 1% of properties are affected by Radon. A small area in the centre is indicated to be in an area where between 1 and 3% of properties are affected. Given that no buildings are proposed as part of the works, the risks associated with Radon will not be considered further.



4. SITE RECONNAISSANCE

Site Walkover and description

4.1 A visual inspection of embankments and cuttings at locations of exploratory holes located on National Highways land will be undertaken by a suitably qualified geotechnical engineer or engineering geologist during the ground investigation. The additional ground investigation is discussed in **Section 8**.

Recent Ground Investigations/Reports

<u>'Factual Ground Investigation Report, East Midlands Gateway Strategic Rail Freight Interchange, Zone 3, Major Trunk Road Improvements' by RSK, reference 312494-03 (00), dated December 2013.</u>

- 4.2 A Ground Investigation for the land immediately east of the M1 was undertaken by RSK in October 2013 to provide information in order for a ground model to be confirmed at the site.
- 4.3 Within the investigation area, a total of seventeen exploratory holes were advanced, of which twelve are within the EMG2 works areas.
- 4.4 Ground conditions to the south of J24, were recorded as varying depths of subsoil overlying Head Deposits or Wanlip member clays over Thrussington Member Bedrock. Made Ground was encountered in one location from ground Level comprising slightly sandy gravelly clay.
- 4.5 To the north of J24, ground conditions were recorded to comprise Topsoil or Subsoil overlying either Hemmington Member Sands and Gravels or Wanlip Member deposits.

 Bedrock geology was indicated to comprise either the Branscombe Mudstone formation or the Arden Sandstone Formation, with Edwalton Member Mustone recorded in just one CP borehole location.
 - 'Ground Investigation Report, Smart Motorways Programme M1, J23a 25' by Amey ARUP, reference: HA549342-AMAR-HGT-SWI-RP-CE-000002-Rev P0, dated February 2016.
- 4.6 A Ground Investigation Report was undertaken by Amey ARUP for the Smart Motorways Programme, M1 Junction 23a to 25, on behalf of Highways England (HAGDMS Report number 28929). Although no scheme specific ground investigations were undertaken, historical ground investigation data was utilised to inform ground conditions at the site.
- 4.7 The scheme was split into three sections based on general variations in solid geology referred to as the 'south section' (Chainages Ch179500 to Ch184750), the 'central section' (Chainages Ch184750 to Ch191530) and the 'north section' (Chainages Ch191530 to Ch195800).



- 4.8 The EMG2 work areas, of which this PSSR covers, is presumed to be between Chainages Ch183000 and Ch186000. Sixteen exploratory hole locations are identified to be within the area of the described 'south section' and eleven exploratory hole locations within the described 'central section' which also within the EMG2 works area or within 50m.
- 4.9 Made Ground was identified throughout the 'south section', recorded as road construction materials or Embankment Fill in areas of Embankment, although the report identified seven areas of Made Ground described as removed unsuitable material. Limited information was available on their extents, thickness and composition.
- 4.10 Superficial Deposits between the 'south section' and 'central section' are recorded to comprise Glaciofluvial Deposits, River Terrace deposits and Alluvium.
- 4.11 The bedrock geology of the scheme is recorded as comprising the Mercia Mudstone Group with highly varying proportions of mudstone, siltstone and sandstone. A small section (Ch184600 to Ch184800) is recorded to comprise the Bromsgrove Sandstone Formation.



5. GROUND CONDITIONS

General

- 5.1 Available existing ground investigations and reports have been reviewed to provide a general overview of ground conditions in the wider area and allow the preparation of preliminary ground models for the site.
- 5.2 A ground profile outside the footprint of the existing road embankments may comprise:

Table 5:1: Typical Ground Model

Class	Top Depth (m)		Base Depth (m)	
Stratum	Min	Max	Min	Max
Topsoil	Ground Level		0.10	0.80
Made Ground	Ground Level		0.40	11.30
Fill/Possible Fill	Ground Level		0.70	1.80
Superficial Deposits	Ground Level		0.70	6.80
Mercia Mudstone (weathered)	Ground Level		Not Proven	
Mercia Mudstone	8.23 11.80		Not Proven	

Derivation of Anticipated Parameter Values

5.3 Anticipated material parameter values have been summarised based on existing historical information, Design Reports, and Geotechnical Feedback Reports. These have been considered with reference to published information, soil and rock descriptions, empirical correlations with available data and laboratory test results. The process of interpretation of various key soil and rock parameters is summarised below.

Table 5:2: Parameter Derivation Methodology

Parameter	Symbol	Date		
Unit Weight	Unit weights of soil and rock may be derived from Figures 1 at BS 8002:2015 Code of Practice for Earth Retaining Structures, on material descriptions.			
Bulk and Dry Density	γb, γd.	Bulk and dry densities of soil and rock may be derived from Figure 1 and 2 in BS 8002:2015 Code of Practice for Earth Retaining Structures, based on material descriptions.		
Effective Angle		For coarse grained soils (sands, gravels), correlations with particle size distribution data and material descriptions may be adopted in accordance with Table 1 of BS 8002 [Ref. 8].		
of Shearing Resistance	φ'	For fine grained materials (clays), correlations with plasticity index (PI) are available in accordance with Table 2 of BS 8002 [Ref. 8].		
		φ' in rocks may be assessed based on values published in Rock Slope Engineering by Hoek & Bray (3rd Edition, 1981).		
Apparent effective cohesion	C'	In coarse grained soils where drained conditions are assumed to dominate, a c' of zero is recommended for design.		



Undrained Shear Strength	Cu	Undrained shear strength is relevant to fine grained soils (clays). Correlations between plasticity index (PI) and SPT 'N' value may be used to infer undrained shear strength using Figure 31 in CIRIA Report 143 [Ref. 9] according to Stroud (1979). Where plasticity index information is not available, a lower bound correlation of $c_0 = 4.5 \times SPT$ 'N' value may be adopted.		
Coefficient of compressibility	m _v	Compressibility and stiffness typically show a wide scatter in published correlations. A moderately conservative assumption of mv = 1/N may be adopted for soils based on CIRIA Report 143 [Ref. 9]. Historical laboratory test data is also available.		
Unconfined Compressive UCS Strength		UCS may be estimated based on published correlations with rock descriptions. Historical laboratory test data may also be available.		
Young's Modulus (drained and undrained)	E' E ₀	Compressibility and stiffness typically exhibit a wide scatter in published correlations. A moderately conservative assumption of E = N may be adopted for soils based on CIRIA Report 143 [Ref. 9] Published correlations with c_{u} (E=100 c_{u}) may also be used for comparison.		
Poisson's Ratio v between 0.2 and 0.3.		Poisson's Ratio for soils and rocks is typically assumed to be between 0.2 and 0.3. Poisson's Ratio in undrained conditions is equal to 0.5.		

Preliminary Characteristic Parameter Values

5.4 A summary of preliminary characteristic engineering parameter values is presented below. It is anticipated that these may be refined at later project stages within future Geotechnical Interpretative Report(s) (GIR) and Geotechnical Design Report(s) (GDR).

Table 5:3: Summary of Prelim. Anticipated Ranges for Characteristic Parameter Values

Stratum	Unit Weight,	Effective Angle of Friction, ϕ	Effective Cohesion, c'	Undrained Shear Strength, cu	Coefficient of Compressibility, m _v
	kN/m³	deg	kN/m²	kN/m²	MN/m²
Fill		27	0	100	0.08
Alluvium 1		25	0	30 – 50	0.16 – 2.15
River Terrace Deposits		38	-	-	-
Head Deposits		27	0	100	0.09 – 0.20
Glaciofluvial Deposits Fine/Coarse		26/38	0	28 – 355	0.03 – 0.36
Till		26	0	50 - 300	0.02 – 0.36
Mercia Mudstone		30	2	50 – 200	0.01 – 0.31

 $^{^{\}rm l}$ Unlikely to be encountered and if found is proposed to be removed and replaced. z = depth below 2m bgl.



6. PRELIMINARY ENGINEERING ASSESSMENT

General

- 6.1 The information contained within this PSSR indicates there are no unusual geotechnical hazards anticipated in relation to the design and construction of improvements to the National Highways infrastructure in relation to East Midlands Gateway2.
- 6.2 Key artificial obstacles anticipated from this review of the site history include:
 - Existing services and their modification.
- 6.3 The above is not likely to present an insurmountable obstacle to the proposed scheme.
- 6.4 Preliminary engineering assessments presented in this section comprise:
 - Cuttings and embankments;
 - Re-use of site-won materials;
 - Bridge/Tunnel structures;
 - Traffic sign foundations;
 - Gantry foundations;
 - Geo-environmental considerations; and
 - Concrete in aggressive ground.
- 6.5 A new link road connecting M1 northbound to A50 westbound is proposed with the construction of a bridge (under or over) the A453. At this stage the specific extents and geometries of new cuttings are unknown at this stage until bridge or tunnel option is confirmed.

Cuttings

- 6.6 If a tunnel is proposed, it is anticipated that slopes to the entrance of the tunnel (entry & exit) will be specified at a maximum gradient of 1:3 (V:H) for ease of maintenance.
- 6.7 Slopes of 1:3 (V:H) are considered reasonable as a rule of thumb for future cut slopes, subject to detailed design to modern standards and noting that material anticipated in new cuttings is likely to be competent superficial soils. Care should be taken to assess the site-specific anticipated ground conditions and slope stability in areas of significant cut.

Embankments

- 6.8 If a bridge is proposed, it is anticipated that new embankment slopes of 1:3 (V:H) are considered reasonable as an initial guide for future embankments constructed of sitewon materials or other acceptable granular or cohesive fill subject to detailed design to modern standards.
- 6.9 Care should be taken to assess the site-specific anticipated ground conditions, slope stability, long-term settlements under new embankments.



6.10 Where soft clays are present beneath the location of new proposed embankments it is proposed this is removed prior to construction. Soft clay material may be suitable for reuse as landscape fill subject to suitability testing and potentially treatment.

Re-use of site-won materials

6.11 Site-won materials obtained from cuttings or excavations for foundations and drainage are likely to be suitable for utilisation in the construction of general earthworks subject to suitability testing on the specific material.

Bridge/Tunnel structure

6.12 For the link road between M1 junction 24 northbound to A50 westbound a bridge (over or under) is proposed over the existing A453. The structure type, once confirmed, will be subject to detailed design following ground investigation works.

Gantry/ Signage Foundations

- 6.13 The construction of the additional diverge roads at Junction 24 will require additional gantries/signs to be constructed, which will require foundations.
- 6.14 The design of foundations for gantry, signs and other small structures will be subject to detailed design following ground investigation works.

Geo-Environmental Considerations

- 6.15 There are no known contamination or gas sources within the area of the works.
- 6.16 A ground investigation will be undertaken which will investigate the fill and natural materials that are to be involved in the proposed works, and any area of potential contamination will be targeted and subjected to appropriate testing. Any contamination or gas issues will be mitigated as part of the detailed design.

Concrete in Aggressive Ground

- 6.17 The natural soils in the area, and the fill derived from them, are not believed to pose any particular problems in relation to buried concrete.
- 6.18 The Ground Investigation Report, undertaken by Amey ARUP for the Smart Motorways Programme Scheme, was completed within the EMG2 works area.
- 6.19 Testing of recovered samples for BRE SD1 analysis indicated conditions to exist at the site as follows:
 - Embankment Fill
 - Alluvium, Head Deposits and Till: DS-1, AC-1
 - River Terrace Deposits and Glaciofluvial Deposits: DS-3, AC-3
 - Weathered Mercia Mudstone: DS-2, AC-2



- Mercia Mudstone (Siltstone): DS-1, AC-1
- Mercia Mudstone (Sandstone): DS-3, AC-3
- 6.20 Scheme specific testing for the potential for aggressive ground conditions in relation to buried concrete will be undertaken as part of the future proposed ground investigation works.



7. COMPARISON OF PROJECT OPTIONS AND RISKS

- 7.1 The preliminary Geotechnical Risk Register is presented in **Appendix 5**.
- 7.2 In summary, the main potential geotechnical risks identified at this stage are as follows:
 - Cut and Fill operation working parallel to the live M1 for bridge (over or under) for the A453 for the link road between M1 junction 24 Northbound and A50 Westbound;
 - Potential for localised areas of soft and/or compressible Made Ground Deposits at new earthworks and road alignment locations leading to differential and/ or excessive settlements;
 - Slope instability / variable ground conditions associated with upgrading and constructing embankments/cuttings associated with the new link road connection;
 - Inadequate consideration of construction sequencing;
 - Inadequate temporary works; and
 - Underground services.
- 7.3 It is proposed that the Scheme is classified as Geotechnical Category 2 as defined in CD622 and BS EN 1997-1 Eurocode 7 as the proposed construction is not anticipated to comprise exceptional risks or abnormal loading conditions. CDM (2015) Regulations will apply to the project due to the scope, size, and nature of the works.
- 7.4 Specific key project options to consider include:
 - The potential for soft ground and approach to re-use of materials.
 - Requirements for design of pavement sub-base and structure foundations in areas
 of fill.
- 7.5 Mitigation measures recommended for the next stage of works include:
 - A targeted ground investigation prior to detailed design (see Section 8 below).



8. GROUND INVESTIGATION SCOPING

General

- 8.1 A review of the existing ground investigation information has been undertaken for the site.
- 8.2 There is a lack of existing ground investigation data available for the proposed new link road between M1 junction 24 Northbound and A50 Westbound, which means that further investigation in advance of detailed design is anticipated to be both exploratory and confirmatory.
- 8.3 Targeted geotechnical ground investigation at the location of key structures is recommended to reduce project risk. BWB considers the requirement for further ground investigation to inform:
 - Development Consent Order (DCO) process and decisions; and
 - Detailed design of geotechnical and roads elements.
- 8.4 The ground investigation scoping process is presented in Ground Investigation Scoping Report (GISR) which is attached to this report (refer to Annex A.)

Investigations

- 8.5 There is currently limited existing ground investigation information for the scheme, specifically within the area of the proposed bridge/tunnel structure. Although the range of ground conditions and geotechnical risks are somewhat understood. Intrusive investigations are currently planned to progress the SRFI development and inform the detailed design of the scheme including the relate.d infrastructure.
- 8.6 Further investigation will be required prior to detailed design of the proposed scheme, as outlined below.

Detailed Ground Investigations

- 8.7 Ground investigations are recommended to inform detailed design of the proposed works (details to be provided in the GISR, refer to Annex A for further information). The objects of the proposed ground investigation are to:
 - Confirm ground conditions at the location of bridge (over or under) A453 linking M1 junction 24 Northbound to A50 Westbound;
 - Confirm Gradings of previously identified Geotechnical Assets;
 - Establish ground conditions in areas of new roads, new cuttings, or embankments, retaining structures, culverts, or other structures (within the areas requiring highway improvements under the control of National Highways and, separately, Leicestershire County Council);
 - Assess the groundwater regime;
 - Assess suitability of site-won material for re-use;



- Assess potential susceptibility to freeze-thaw heave where such potential is identified;
- Screen for common contaminants in shallow soils; and
- Inform pavement design, including:
 - o Assess stiffness of the subgrade to confirm requirements for new pavement construction.
- 8.8 A visual inspection of embankments and cuttings at locations of exploratory holes is recommended by a suitably qualified geotechnical engineer or engineering geologist. It is recommended this is coordinated during ground investigation works to take advantage of traffic management and safe access to slopes, as well as potential localised vegetation strips which will allow better access and visibility of the slopes.



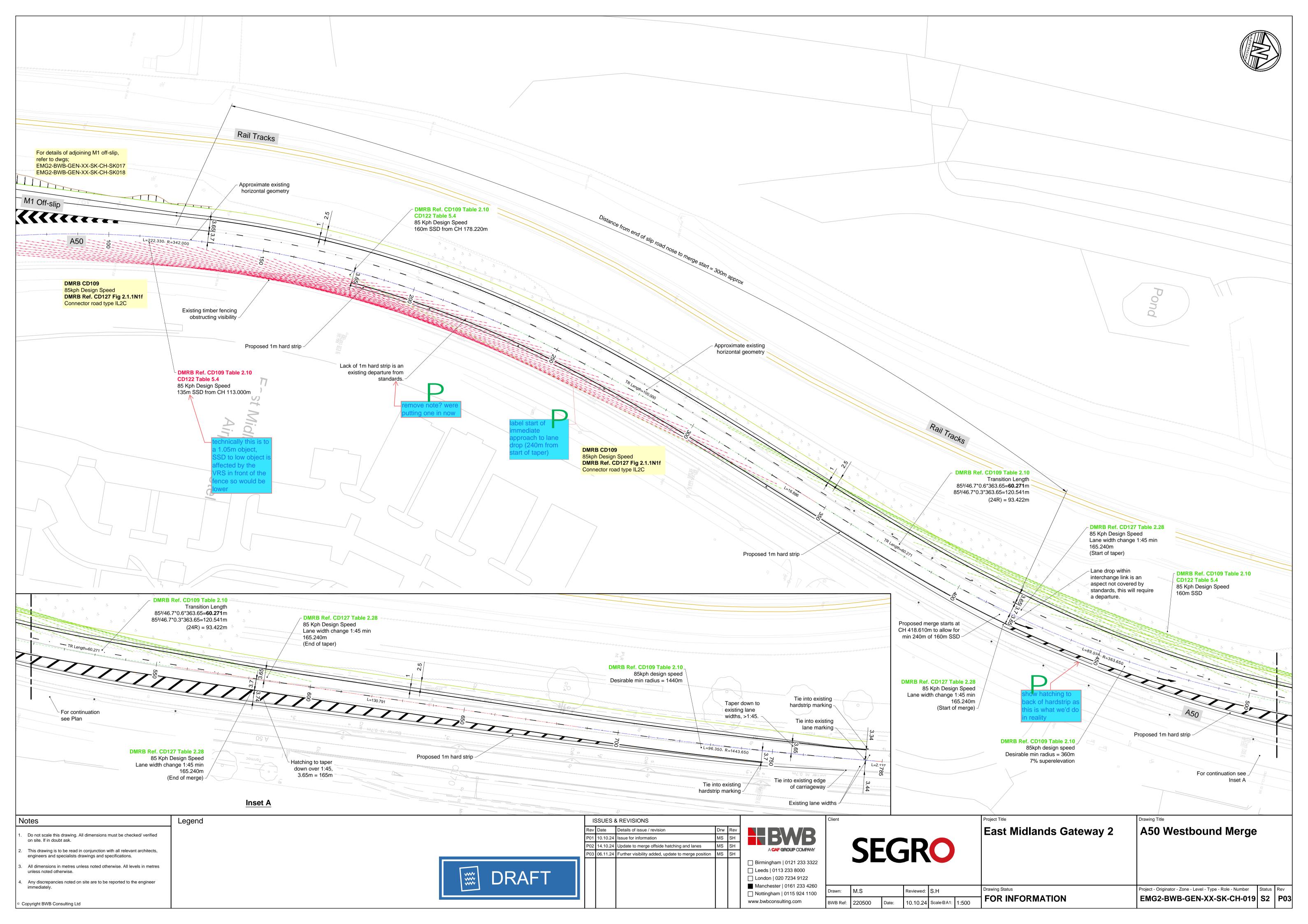
9. REFERENCES

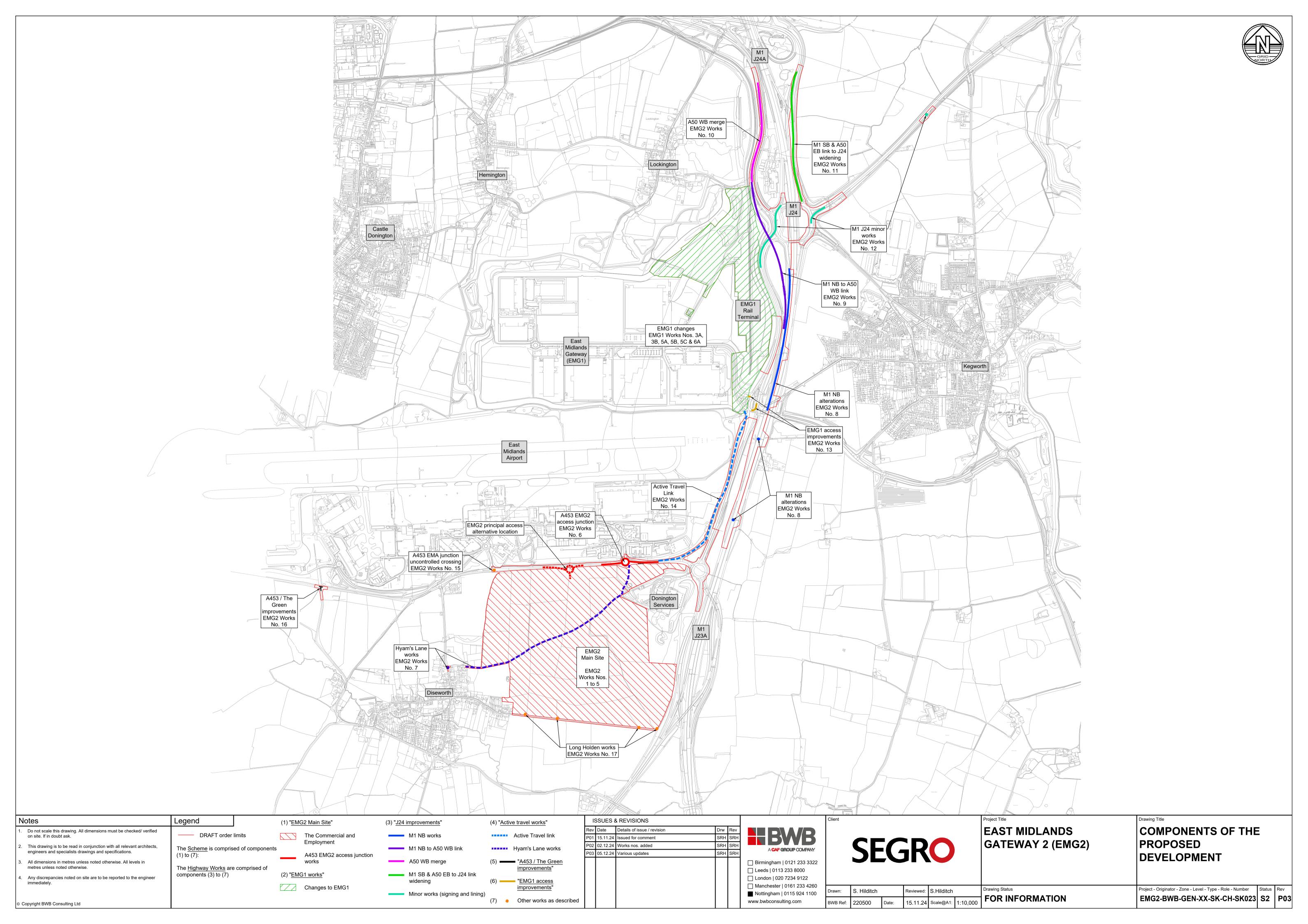
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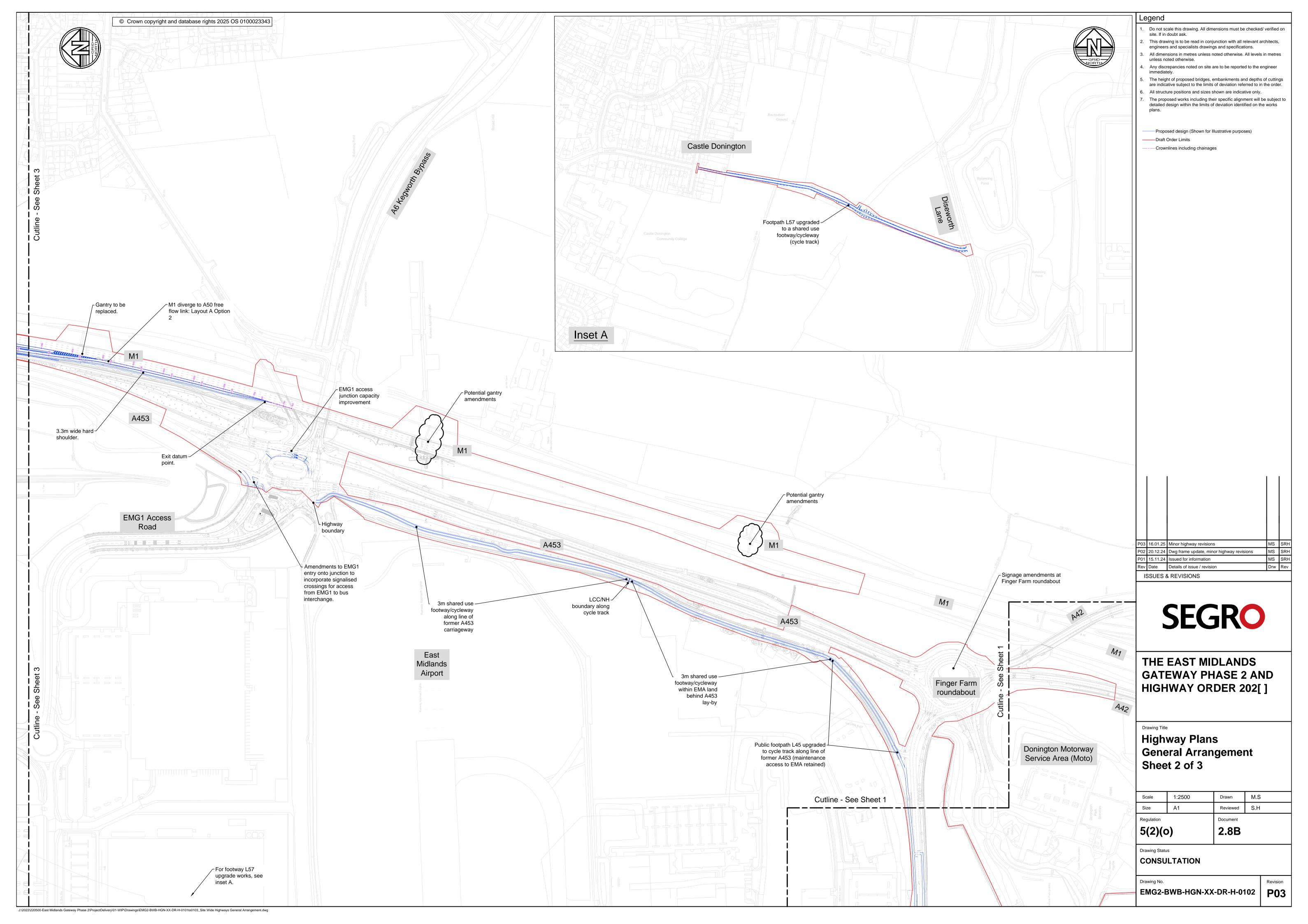
East Midlands Gateway Phase 2 Preliminary Sources Study Report affecting National Highways (PSSR) March 2025 EMG2-BWB-XX-XX-T-G-0001_P01

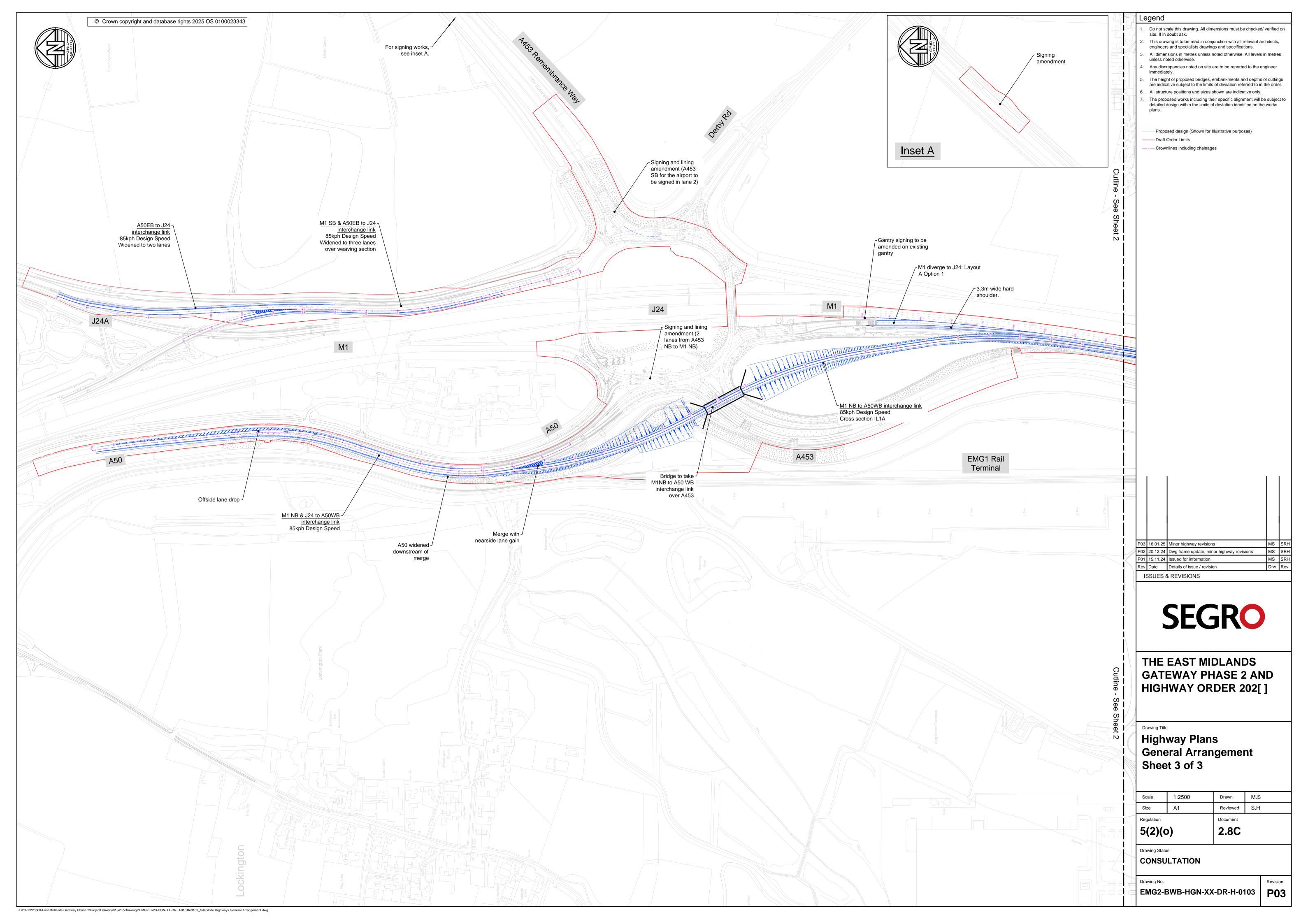


DRAWINGS









East Midlands Gateway Phase 2 Preliminary Sources Study Report affecting National Highways (PSSR) March 2025 EMG2-BWB-XX-XX-T-G-0001_P01



APPENDICES

East Midlands Gateway Phase 2 Preliminary Sources Study Report affecting National Highways (PSSR) March 2025 EMG2-BWB-XX-XX-T-G-0001_P01



Appendix 1: Groundsure Report



Enviro+Geo

East Midlands Gateway 2, J24 M1 (NH Land)

Order Details

Date: 13/12/2024

Your ref: 220500 - 10250

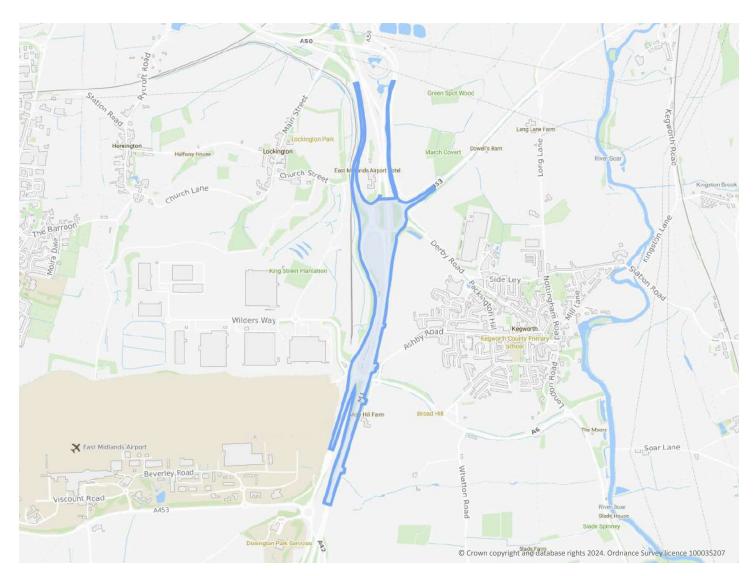
Our Ref: GS-BBU-NDC-5SO-FTK

Site Details

Location: 447397 327034

39.28 ha Area:

Authority: North West Leicestershire District



Summary of findings

p. 2 > **Aerial image** p. 9 >

OS MasterMap site plan

N/A: >10ha

Insight User Guide ↗





Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
<u>14</u> >	<u>1.1</u> >	<u>Historical industrial land uses</u> >	4	0	12	15	-
<u>16</u> >	<u>1.2</u> >	<u>Historical tanks</u> >	0	0	1	2	-
<u>16</u> >	<u>1.3</u> >	<u>Historical energy features</u> >	2	0	1	1	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
<u>18</u> >	<u>2.1</u> >	<u>Historical industrial land uses</u> >	6	0	19	20	-
<u>20</u> >	<u>2.2</u> >	<u>Historical tanks</u> >	0	0	1	2	-
<u>21</u> >	<u>2.3</u> >	<u>Historical energy features</u> >	2	0	4	1	-
21	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
Page <u>22</u> >	Section <u>3.1</u> >	Waste and landfill > Active or recent landfill >	On site	0-50m 0	50-250m 0	250-500m 1	500-2000m -
							500-2000m - -
<u>22</u> >	<u>3.1</u> >	Active or recent landfill >	0	0	0	1	500-2000m - - -
22 > 23	3.1 > 3.2	Active or recent landfill > Historical landfill (BGS records)	0	0	0	1	500-2000m
22 > 23 23	3.1 > 3.2 3.3	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records)	0 0	0 0	0 0	1 0 0	500-2000m
22 > 23 23 23	3.1 > 3.2 3.3 3.4	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records)	0 0 0	0 0 0	0 0 0	1 0 0	500-2000m
22 > 23 23 23 23	3.1 > 3.2 3.3 3.4 3.5	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites	0 0 0 0	0 0 0 0	0 0 0 0 0	1 0 0 0	500-2000m
22 > 23 23 23 23 >	3.1 > 3.2 3.3 3.4 3.5 3.6 >	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites >	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	1 0 0 0 0	- - - - -
22 > 23 23 23 23 23 23 > 27 >	3.1 > 3.2 3.3 3.4 3.5 3.6 > 3.7 >	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites > Waste exemptions >	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	1 0 0 0 0 12 2	- - - - -
22 > 23 23 23 23 23 > 27 > Page	3.1 > 3.2 3.3 3.4 3.5 3.6 > 3.7 > Section	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites > Waste exemptions > Current industrial land use >	0 0 0 0 0 1	0 0 0 0 0 0 30	0 0 0 0 0 0 15	1 0 0 0 0 12 2	- - - - -
22 > 23 23 23 23 23 > 27 > Page 32 >	3.1 > 3.2 3.3 3.4 3.5 3.6 > 3.7 > Section 4.1 >	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites > Waste exemptions > Current industrial land use > Recent industrial land uses >	0 0 0 0 0 1 On site	0 0 0 0 0 30 0-50m	0 0 0 0 0 15 50-250m	1 0 0 0 0 12 2 250-500m	- - - - -
22 > 23	3.1 > 3.2 3.3 3.4 3.5 3.6 > 3.7 > Section 4.1 > 4.2 >	Active or recent landfill > Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites > Waste exemptions > Current industrial land use > Recent industrial land uses > Current or recent petrol stations >	0 0 0 0 0 1 On site	0 0 0 0 0 30 0-50m	0 0 0 0 0 0 15 50-250m	1 0 0 0 0 12 2 250-500m	500-2000m 500-2000m





35	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
35	4.7	Regulated explosive sites	0	0	0	0	-
<u>35</u> >	<u>4.8</u> >	<u>Hazardous substance storage/usage</u> >	0	0	0	1	-
35	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
<u>36</u> >	<u>4.10</u> >	<u>Licensed industrial activities (Part A(1))</u> >	0	0	0	3	-
<u>36</u> >	<u>4.11</u> >	<u>Licensed pollutant release (Part A(2)/B)</u> >	0	0	0	2	-
37	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<u>37</u> >	<u>4.13</u> >	<u>Licensed Discharges to controlled waters</u> >	0	1	1	0	-
38	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.15	Pollutant release to public sewer	0	0	0	0	-
38	4.16	List 1 Dangerous Substances	0	0	0	0	-
38	4.17	List 2 Dangerous Substances	0	0	0	0	-
	4.40	Pollution Incidents (EA/NRW) >	1	0	0	1	-
<u>38</u> >	<u>4.18</u> >		1				
38 > 39	4.18 > 4.19	Pollution inventory substances	0	0	0	0	-
					0	0	-
39	4.19	Pollution inventory substances	0	0			- - -
39 39	4.19	Pollution inventory substances Pollution inventory waste transfers	0	0	0	0	- - 500-2000m
39 39 39	4.19 4.20 4.21	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste	0 0 0 On site	0 0	0 0 50-250m	0	- - 500-2000m
39 39 39 Page	4.19 4.20 4.21 Section	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology >	0 0 0 On site	0 0 0	0 0 50-250m	0	- - 500-2000m
39 39 39 Page	4.19 4.20 4.21 Section 5.1 >	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer >	0 0 On site	0 0 0 0-50m within 500m	0 0 50-250m	0	- - 500-2000m
39 39 Page 40 > 42 >	4.19 4.20 4.21 Section 5.1 > 5.2 >	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer >	0 0 On site	0 0 0-50m within 500m within 500m	0 0 50-250m	0	- - 500-2000m
39 39 Page 40 > 42 > 44 >	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 >	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability >	O On site Identified (v	0 0 0-50m within 500m within 500m within 50m)	0 0 50-250m	0	- - 500-2000m
39 39 Page 40 > 42 > 44 > 49	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability - soluble rock risk	0 0 On site Identified (vildentified (vilden	0 0 0-50m within 500m within 500m within 50m)	0 0 50-250m	0	- - 500-2000m
39 39 39 Page 40 > 42 > 44 > 49	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 5.5	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information	O On site Identified (vildentified (vildent	0 0 0 0-50m within 500m within 500m within 50m) in 0m)	0 0 50-250m	0 0 250-500m	
39 39 39 Page 40 > 42 > 44 > 49 49 50 >	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 5.5	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information Groundwater abstractions >	0 0 On site Identified (vildentified (vilden	0 0 0-50m within 500m within 500m within 50m) in 0m) in 0m)	0 0 50-250m)	0 0 250-500m	20
39 39 39 Page 40 > 42 > 44 > 49 49 50 >	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 5.5 5.6 > 5.7 >	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions >	0 0 0 On site Identified (vildentified (vild	0 0 0-50m within 500m within 500m within 50m) in 0m) in 0m)	0 0 50-250m)	0 0 250-500m	20 12
39 39 39 Page 40 > 42 > 44 > 49 49 50 > 55 >	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 5.5 > 5.6 > 5.7 > 5.8	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions > Potable abstractions	0 0 0 On site Identified (vildentified (vild	0 0 0 0-50m within 500m within 500m within 50m) in 0m) 0 0	0 0 50-250m))	0 0 250-500m 0 0	20 12
39 39 39 Page 40 > 42 > 44 > 49 49 50 > 55 > 58	4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 5.5 5.6 > 5.7 > 5.8 5.9	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology > Superficial aquifer > Bedrock aquifer > Groundwater vulnerability > Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions > Potable abstractions Source Protection Zones	0 0 0 On site Identified (vildentified (vild	0 0 0 0-50m within 500m within 500m within 50m) in 0m) 0 0	0 0 50-250m)))	0 0 250-500m 0 0	20 12





<u>68</u> >	<u>6.2</u> >	<u>Surface water features</u> >	1	16	43	-	-
<u>68</u> >	<u>6.3</u> >	WFD Surface water body catchments >	2	-	-	-	-
<u>69</u> >	<u>6.4</u> >	WFD Surface water bodies >	0	0	1	-	-
<u>69</u> >	<u>6.5</u> >	WFD Groundwater bodies >	2	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
<u>70</u> >	<u>7.1</u> >	Risk of flooding from rivers and the sea >	High (withi	n 50m)			
<u>71</u> >	<u>7.2</u> >	<u>Historical Flood Events</u> >	0	0	2	-	-
71	7.3	Flood Defences	0	0	0	-	-
71	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
72	7.5	Flood Storage Areas	0	0	0	-	-
<u>73</u> >	<u>7.6</u> >	Flood Zone 2 >	Identified (within 50m)			
<u>74</u> >	<u>7.7</u> >	Flood Zone 3 >	Identified (within 50m)			
Page	Section	Surface water flooding >					
<u>75</u> >	<u>8.1</u> >	Surface water flooding >	1 in 30 year	r, Greater tha	an 1.0m (wit	hin 50m)	
Page	Section	Groundwater flooding >					
Page 77 >	Section 9.1 >	Groundwater flooding > Groundwater flooding >	High (withi	n 50m)			
			High (withi	n 50m) _{0-50m}	50-250m	250-500m	500-2000m
<u>77</u> >	<u>9.1</u> >	Groundwater flooding >			50-250m	250-500m	500-2000m
<u>77</u> >	<u>9.1</u> >	Groundwater flooding > Environmental designations >	On site	0-50m			
77 > Page 78 >	9.1 > Section 10.1 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) >	On site	0-50m	0	0	1
77 > Page 78 >	9.1 > Section 10.1 > 10.2	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites)	On site 0	0-50m 0	0	0	1 0
77 > Page 78 > 79	9.1 > Section 10.1 > 10.2 10.3	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC)	On site 0 0 0	0-50m 0 0	0 0	0 0	1 0 0
77 > Page 78 > 79 79	9.1 > Section 10.1 > 10.2 10.3 10.4	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA)	On site 0 0 0 0	0-50m 0 0 0	0 0 0	0 0 0	1 0 0
77 > Page 78 > 79 79 79	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR)	On site 0 0 0 0 0	0-50m 0 0 0	0 0 0 0 0	0 0 0 0 0	1 0 0 0
77 > Page 78 > 79 79 79 80	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR)	On site 0 0 0 0 0 0 0	0-50m 0 0 0 0	0 0 0 0 0	0 0 0 0 0	1 0 0 0 0
77 > Page 78 > 79 79 79 80 80 >	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland >	On site 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	1 0 0 0 0
77 > Page 78 > 79 79 79 80 80 > 80	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves	On site 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	1 0 0 0 0 0
77 > Page 78 > 79 79 79 80 80 > 80 80	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves Forest Parks	On site 0 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1	0 0 0 0 0 0	1 0 0 0 0 0 0
77 > Page 78 > 79 79 79 80 80 > 80 81	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9 10.10	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves Forest Parks Marine Conservation Zones	On site 0 0 0 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1 0		1 0 0 0 0 0 0





81	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
82	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
82	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<u>82</u> >	<u>10.16</u> >	Nitrate Vulnerable Zones >	3	0	0	0	1
<u>83</u> >	<u>10.17</u> >	SSSI Impact Risk Zones >	4	-	-	-	-
<u>85</u> >	<u>10.18</u> >	SSSI Units >	0	0	0	0	2
Page	Section	<u>Visual and cultural designations</u> >	On site	0-50m	50-250m	250-500m	500-2000m
86	11.1	World Heritage Sites	0	0	0	-	-
87	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
87	11.3	National Parks	0	0	0	-	-
87	11.4	Listed Buildings	0	0	0	-	-
<u>87</u> >	<u>11.5</u> >	<u>Conservation Areas</u> >	0	0	1	-	-
88	11.6	Scheduled Ancient Monuments	0	0	0	-	-
88	11.7	Registered Parks and Gardens	0	0	0	_	
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
<u>89</u> >	<u>12.1</u> >	<u>Agricultural Land Classification</u> >	Grade 3b (v	vithin 250m)			
92	12.2	Open Access Land	0	0	0	-	-
92	12.3	Tree Felling Licences	0	0	0	-	-
<u>92</u> >	<u>12.4</u> >	Environmental Stewardship Schemes >	0	3	2	-	-
93	12.5	Countryside Stewardship Schemes	0	0	0	-	
Page	Section	<u>Habitat designations</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>94</u> >	<u>13.1</u> >	Priority Habitat Inventory >	2	3	10	-	-
95	13.2	Habitat Networks	0	0	0	-	-
95	13.3	Open Mosaic Habitat	0	0	0	-	-
96	13.4	Limestone Pavement Orders	0	0	0	_	_
Page	Section	<u>Geology 1:10,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>97</u> >	<u>14.1</u> >	10k Availability >	Identified (v	within 500m)		
<u>98</u> >	<u>14.2</u> >	Artificial and made ground (10k) >	7	7	5	13	-
<u>100</u> >	<u>14.3</u> >	Superficial geology (10k) >	7	1	5	14	-





102	14.4	Landslip (10k)	0	0	0	0	-
<u>103</u> >	<u>14.5</u> >	Bedrock geology (10k) >	13	4	30	15	-
<u>106</u> >	<u>14.6</u> >	Bedrock faults and other linear features (10k) >	3	0	6	7	-
Page	Section	<u>Geology 1:50,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>108</u> >	<u>15.1</u> >	50k Availability >	Identified (within 500m)	•	
109	15.2	Artificial and made ground (50k)	0	0	0	0	-
109	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<u>110</u> >	<u>15.4</u> >	Superficial geology (50k) >	7	1	6	11	-
<u>112</u> >	<u>15.5</u> >	Superficial permeability (50k) >	Identified (within 50m)			
112	15.6	Landslip (50k)	0	0	0	0	-
112	15.7	Landslip permeability (50k)	None (with	in 50m)			
<u>113</u> >	<u>15.8</u> >	Bedrock geology (50k) >	11	3	26	11	-
<u>116</u> >	<u>15.9</u> >	Bedrock permeability (50k) >	Identified (within 50m)			
<u>116</u> >	<u>15.10</u> >	Bedrock faults and other linear features (50k) >	2	0	7	1	_
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
<u>118</u> >	<u>16.1</u> >	BGS Boreholes >	61	56	69	-	-
Page	Section	Natural ground subsidence >					
<u>127</u> >	<u>17.1</u> >	Shrink swell clays >	Very low (w	vithin 50m)			
<u>129</u> >	<u>17.2</u> >	Running sands >	Very low (w	vithin 50m)			
<u>131</u> >	<u>17.3</u> >	Compressible deposits >	Negligible (within 50m)			
<u>132</u> >	<u>17.4</u> >	Collapsible deposits >	Very low (w	vithin 50m)			
<u>133</u> >	<u>17.5</u> >	<u>Landslides</u> >	Low (withir	1 50m)			
<u>135</u> >	<u>17.6</u> >	Ground dissolution of soluble rocks >	Negligible (within 50m)			
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
<u>137</u> >	<u>18.1</u> >	BritPits >	0	0	0	5	-
<u>138</u> >	<u>18.2</u> >	Surface ground workings >	11	3	34	-	-
140	18.3	Underground workings	0	0	0	0	0
141	18.4	Underground mining extents	0	0	0	0	-





141	18.6	Non-coal mining	0	0	0	0	0
141	18.7	JPB mining areas	None (with	in 0m)			
141	18.8	The Coal Authority non-coal mining	0	0	0	0	-
142	18.9	Researched mining	0	0	0	0	-
142	18.10	Mining record office plans	0	0	0	0	-
142	18.11	BGS mine plans	0	0	0	0	-
142	18.12	Coal mining	None (with	in 0m)			
143	18.13	Brine areas	None (with	in 0m)			
143	18.14	Gypsum areas	None (with	in 0m)			
143	18.15	Tin mining	None (with	in 0m)			
143	18.16	Clay mining	None (with	in 0m)			
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
144	19.1	Natural cavities	0	0	0	0	-
144	19.2	Mining cavities	0	0	0	0	0
144	19.3	Reported recent incidents	0	0	0	0	-
144	19.4	Historical incidents	0	0	0	0	-
145	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
<u>146</u> >	<u>20.1</u> >	Radon >	Between 19	% and 3% (w	ithin 0m)		
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
<u>148</u> >	<u>21.1</u> >	BGS Estimated Background Soil Chemistry >	53	24	-	-	-
152	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
153	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
154	22.1	Underground railways (London)	0	0	0	-	-
154	22.2	Underground railways (Non-London)	0	0	0	-	-
155	22.3	Railway tunnels	0	0	0	-	-
155	22.4	Historical railway and tunnel features	0	0	0	-	-
155	22.5	Royal Mail tunnels	0	0	0	-	-





155	22.6	Historical railways	0	0	0	-	-
<u>155</u> >	<u>22.7</u> >	Railways >	0	10	2	-	-
156	22.8	Crossrail 2	0	0	0	0	-
156 >	22.9 >	HS2 >	3	1	8	6	_



01273 257 755



Recent aerial photograph

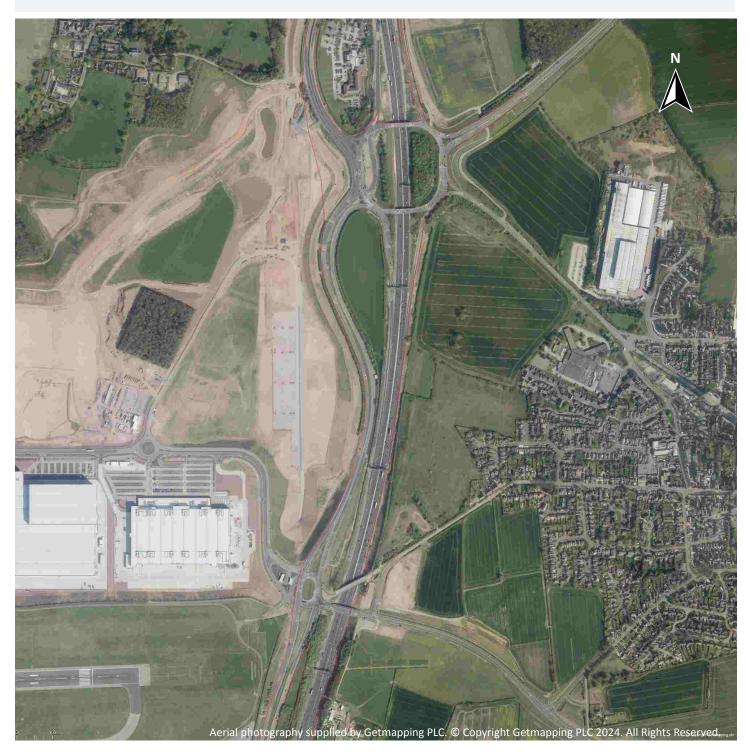


Capture Date: 10/07/2022





Recent site history - 2019 aerial photograph



Capture Date: 20/04/2019





Recent site history - 2015 aerial photograph



Capture Date: 24/04/2015





Recent site history - 2000 aerial photograph



Capture Date: 17/06/2000





Recent site history - 1999 aerial photograph

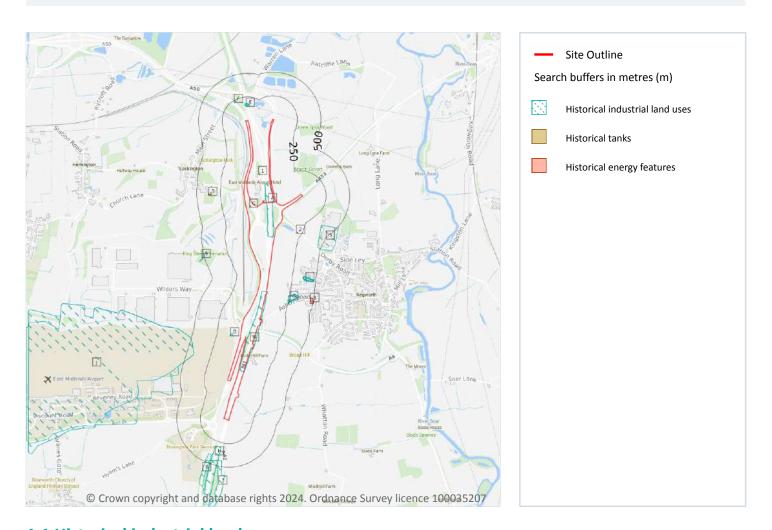


Capture Date: 11/07/1999





1 Past land use



1.1 Historical industrial land uses

Records within 500m 31

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 14 >

ID	Location	Land use	Dates present	Group ID
Α	On site	Cuttings	1971	1680201





ID	Location	Land use	Dates present	Group ID
Α	On site	Cuttings	1982 - 1992	1726088
В	On site	Cuttings	1971	1692256
В	On site	Cuttings	1982 - 1992	1710569
D	88m S	Unspecified Heap	1971	1659945
D	88m S	Unspecified Heap	1982 - 1992	1691670
Е	151m N	Unspecified Pit	1921	1749059
Е	151m N	Unspecified Pit	1938 - 1955	1720061
Е	152m N	Gravel Pit	1883	1629122
Е	154m N	Unspecified Heap	1899	1621736
F	226m N	Sluice Valve and Washout Chamber	1921	1681726
G	228m SE	Flour Mill	1883	1639308
G	229m SE	Unspecified Mill	1901 - 1922	1696951
G	229m SE	Unspecified Mill	1922	1728150
F	230m N	Pump House	1992	1635143
G	230m SE	Unspecified Mill	1955	1654739
Н	301m S	Cuttings	1971	1712470
Н	301m S	Cuttings	1982 - 1992	1729166
I	361m E	Unspecified Pit	1883	1764290
I	363m E	Unspecified Pit	1883	1665093
	363m E	Unspecified Pit	1901 - 1922	1776543
5	365m NE	Unspecified Factory	1992	1635426
I	365m E	Unspecified Pit	1901	1751343
I	368m E	Unspecified Pit	1955	1704605
6	404m S	Cuttings	1992 - 1993	1744917
J	425m SW	Airport	1971	1751047
J	425m SW	Airport	1982 - 1992	1767001
7	437m S	Cuttings	1993	1584849
K	448m S	Cuttings	1993	1685144





ID	Location	Land use	Dates present	Group ID
K	449m S	Cuttings	1975	1653354
9	479m W	Unspecified Ground Workings	1883	1593177

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m 3

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 14 >

ID	Location	Land use	Dates present	Group ID
1	99m N	Tanks	1991	264224
3	341m NW	Tanks	1991	264225
4	345m NW	Unspecified Tank	1991	271573

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m 4

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 14 >

ID	Location	Land use	Dates present	Group ID
С	On site	Gas Governor	1991	170963
С	On site	Gas Governor	1999	177717





ID	Location	Land use	Dates present	Group ID
8	463m SE	Electricity Substation	1988	164902

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m 0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m 0

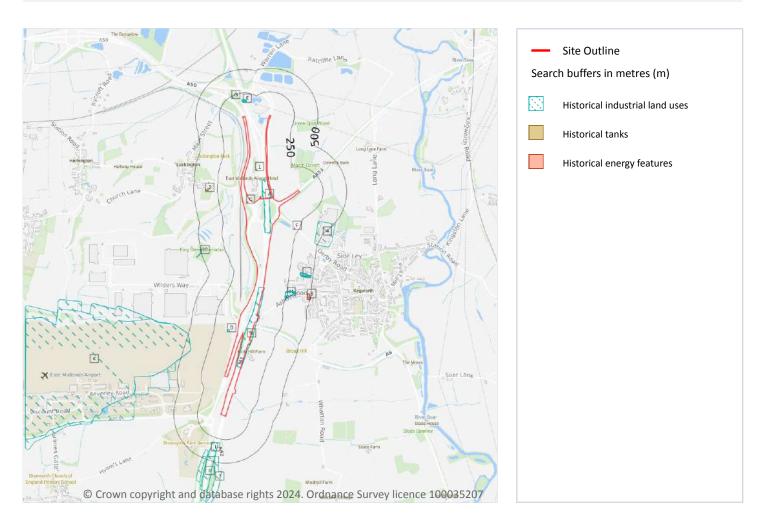
Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.





2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m 45

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
Α	On site	Cuttings	1971	1680201
Α	On site	Cuttings	1982	1726088
Α	On site	Cuttings	1992	1726088





ID	Location	Land Use	Date	Group ID
В	On site	Cuttings	1971	1692256
В	On site Cuttings		1982	1710569
В	On site	Cuttings	1992	1710569
D	88m S	Unspecified Heap	1971	1659945
D	88m S	Unspecified Heap	1982	1691670
D	88m S	Unspecified Heap	1992	1691670
Е	151m N	Unspecified Pit	1921	1749059
Е	151m N	Unspecified Pit	1921	1749059
Е	151m N	Unspecified Pit	1938	1720061
Е	151m N	Unspecified Pit	1938	1720061
Е	152m N	Gravel Pit	1883	1629122
Е	154m N	Unspecified Heap	1899	1621736
Е	157m N	Unspecified Pit	1955	1720061
G	226m N	Sluice Valve and Washout Chamber	1921	1681726
G	226m N	Sluice Valve and Washout Chamber	1921	1681726
Н	228m SE	Flour Mill	1883	1639308
Н	229m SE	Unspecified Mill	1922	1696951
Н	229m SE	Unspecified Mill	1901	1696951
Н	229m SE	Unspecified Mill	1922	1728150
G	230m N	Pump House	1992	1635143
Н	230m SE	Unspecified Mill	1955	1654739
Н	231m SE	Flour Mill	1883	1639308
I	301m S	Cuttings	1971	1712470
I	301m S	Cuttings	1982	1729166
I	301m S	Cuttings	1992	1729166
J	361m E	Unspecified Pit	1883	1764290
J	363m E	Unspecified Pit	1883	1665093
J	363m E	Unspecified Pit	1922	1776543





ID	Location	Land Use	Date	Group ID
J	363m E	Unspecified Pit	1901	1776543
J	363m E	Unspecified Pit	1922	1776543
4	365m NE	Unspecified Factory	1992	1635426
J	365m E	Unspecified Pit	1901	1751343
J	368m E	Unspecified Pit	1955	1704605
5	404m S	Cuttings	1992	1744917
6	425m SW	Airport	1992	1767001
K	425m SW	Airport	1971	1751047
K	425m SW	Airport	1982	1767001
7	437m S	Cuttings	1993	1584849
L	448m S	Cuttings	1993	1685144
L	449m S	Cuttings	1975	1653354
9	478m S	Cuttings	1993	1744917
10	479m W	Unspecified Ground Workings	1883	1593177

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m 3

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
1	99m N	Tanks	1991	264224
2	341m NW	Tanks	1991	264225
3	345m NW	Unspecified Tank	1991	271573

 ${\it This\ data\ is\ sourced\ from\ Ordnance\ Survey\ /\ Groundsure.}$





2.3 Historical energy features

Records within 500m 7

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
С	On site	Gas Governor	1991	170963
С	On site	Gas Governor	1999	177717
F	202m NE	Gas Governor	1982	167595
F	202m NE	Gas Governor	1988	167595
F	202m NE	Gas Governor	1991	167595
F	202m NE	Gas Governor	1999	167595
8	463m SE	Electricity Substation	1988	164902

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m 0

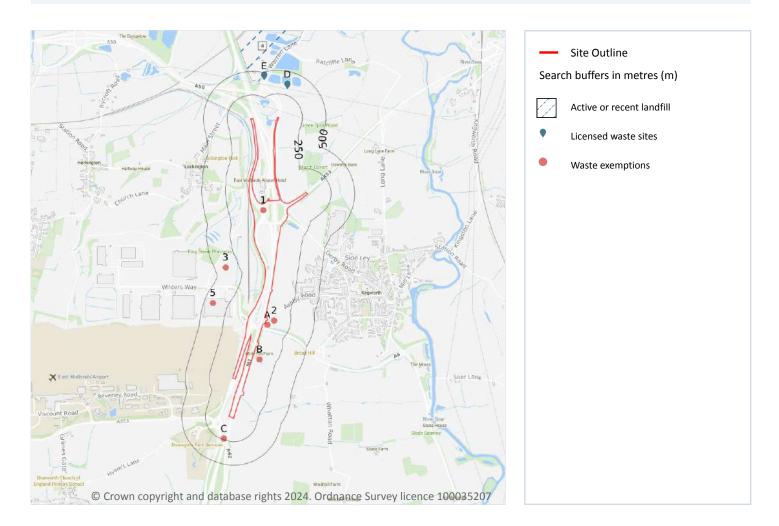
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.





3 Waste and landfill



3.1 Active or recent landfill

Records within 500m

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation. Features are displayed on the Waste and landfill map on page-22>

ID	Location	Details	
4	399m N	Operator: Tarmac Aggregates Limited Site Address: Tarmac Aggregates Limited, Lockington Quarry Landfill Site, Warren Lane, Lockington, Leicestershire, DE74 2RG	WML Number: 210024 EPR Reference: 658291 Landfill type: L05: Inert LF Status: Issued IPPC Reference: - EPR Number: EA/EPR/FP3194ET

This data is sourced from the Environment Agency and Natural Resources Wales.





0

3.2 Historical landfill (BGS records)

Records within 500m 0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m 0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m 0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m 12

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on page 22 >





ID	Location	Details		
D	358m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Derbyshire, DE74 2RG Correspondence Address: -	Type of Site: Management of inert or extractive waste at mine Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF043 EPR reference: EA/EPR/SP3094VZ/V002 Operator: Lafarge Aggregates Limited Waste Management licence No: 102317 Annual Tonnage: 0	Issue Date: 26/01/2011 Effective Date: - Modified: 15/11/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
D	358m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Derbyshire, DE74 2RG Correspondence Address: -	Type of Site: Management of inert or extractive waste at mine Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF043 EPR reference: EA/EPR/SP3094VZ/A001 Operator: Lafarge Aggregates Ltd Waste Management licence No: 102317 Annual Tonnage: 0	Issue Date: 26/01/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
D	358m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: Management of inert or extractive waste at mine Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 643290 EPR reference: EA/EPR/SP3094VZ Operator: Tarmac Aggregates Limited Waste Management licence No: 102317 Annual Tonnage: 0	Issue Date: 26/01/2011 Effective Date: 26/01/2011 Modified: 26/01/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued





ID	Location	Details		
E	459m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF062 EPR reference: EA/EPR/GB3036AJ/V003 Operator: Lafarge Aggregates Limited Waste Management licence No: 104056 Annual Tonnage: 74999	Issue Date: 23/04/2012 Effective Date: - Modified: 17/06/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
E	459m N	Site Name: Lockington Recycling Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TAR018 EPR reference: EA/EPR/HB3904MJ/T001 Operator: Tarmac Trading Limited Waste Management licence No: 104056 Annual Tonnage: 74999	Issue Date: 23/04/2012 Effective Date: 19/11/2019 Modified: 08/01/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
E	459m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF062 EPR reference: EA/EPR/GB3036AJ/V004 Operator: Tarmac Aggregates Limited Waste Management licence No: 104056 Annual Tonnage: 74999	Issue Date: 23/04/2012 Effective Date: - Modified: 08/01/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified





ID	Location	Details		
Е	459m N	Site Name: Lockington Recycling Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRS007 EPR reference: EA/EPR/HB3305HG/T001 Operator: G R S Earth Solutions Limited Waste Management licence No: 104056 Annual Tonnage: 74999	Issue Date: 23/04/2012 Effective Date: 21/05/2019 Modified: 08/01/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
Е	459m N	Site Name: Lockington Quarry Landfill Site Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: Inert LF Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF026 EPR reference: EA/EPR/FP3194ET/V003 Operator: Lafarge Aggregates Ltd Waste Management licence No: 210024 Annual Tonnage: 750000	Issue Date: 30/03/2007 Effective Date: - Modified: 22/07/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
E	459m N	Site Name: Lockington Quarry Landfill Site Site Address: Lockington Quarry Landfill Site, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: Inert LF Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF026 EPR reference: EA/EPR/FP3194ET/V004 Operator: Lafarge Aggregates Limited Waste Management licence No: 210024 Annual Tonnage: 750000	Issue Date: 30/03/2007 Effective Date: - Modified: 20/11/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
Е	463m N	Site Name: Lockington Quarry Site Address: Warren Lane, Nr Lockington, Leicestershire, DE74 2RG Correspondence Address: Bradgate House, Groby, Leicester, Leicestershire, LE6 0FA	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF005 EPR reference: - Operator: Lafarge Redland Aggregates Ltd Waste Management licence No: 43491 Annual Tonnage: 375000	Issue Date: 13/07/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued





ID	Location	Details		
E	464m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: P O Box 7388, Syston, Leicester, Leicestershire, LE7 1WA	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF005 EPR reference: - Operator: Lafarge Aggregates Limited Waste Management licence No: 43491 Annual Tonnage: 375000	Issue Date: 7/13/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	464m N	Site Name: Lockington Quarry Site Address: Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 627825 EPR reference: EA/EPR/MP3190CX Operator: Tarmac Aggregates Limited Waste Management licence No: 43491 Annual Tonnage: 375000	Issue Date: 13/07/2001 Effective Date: 13/07/2001 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m 48

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on page 22 >

ID	Location	Site	Reference	Category	Sub-Category	Description
1	On site	A50 From M1 J24 To B5010 Roundabout Sk4741227636 To Sk4503929435	EPR/AE5387N S/A001	Using waste exemption	Non- agricultural waste only	Use of waste in construction
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit





ID	Location	Site	Reference	Category	Sub-Category	Description
Α	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Treating waste exemption	On a farm	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Disposing of waste exemption	On a farm	Burning waste in the open
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Using waste exemption	On a farm	Use of waste in construction
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Using waste exemption	On a farm	Incorporation of ash into soil
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX335795	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Using waste exemption	On a farm	Use of waste in construction
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
Α	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Using waste exemption	On a farm	Incorporation of ash into soil





ID	Location	Site	Reference	Category	Sub-Category	Description
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Disposing of waste exemption	On a farm	Burning waste in the open
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Treating waste exemption	On a farm	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Using waste exemption	On a farm	Use of waste in construction
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Using waste exemption	On a farm	Incorporation of ash into soil
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX054148	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Disposing of waste exemption	On a farm	Burning waste in the open





ID	Location	Site	Reference	Category	Sub-Category	Description
А	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
Α	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Treating waste exemption	On a farm	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
Α	31m S	Mole Hill Farm, Ashby Road, Kegworth, Derby, De74 2dl	WEX210406	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
2	75m S	-	WEX112348	Treating waste exemption	Not on a farm	Treatment of waste aerosol cans
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Disposing of waste exemption	Both agricultural and non- agricultural waste	Burning waste in the open
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Using waste exemption	Both agricultural and non- agricultural waste	Spreading waste on agricultural land to confer benefit
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Cleaning, washing, spraying or coating relevant waste
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Aerobic composting and associated prior treatment
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of waste in construction





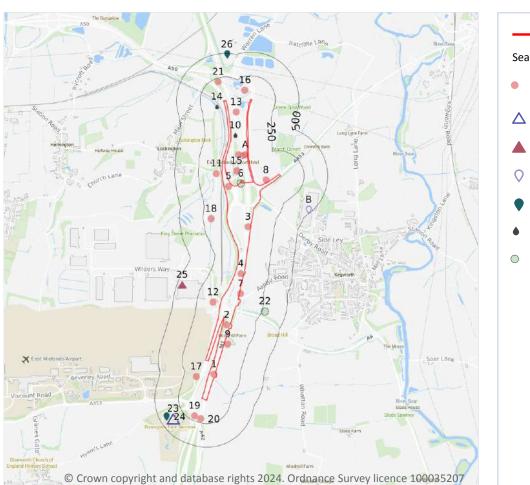
ID	Location	Site	Reference	Category	Sub-Category	Description
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Using waste exemption	Both agricultural and non- agricultural waste	Incorporation of ash into soil
В	77m S	Mole Hill Farm Ashby Road Derby De74 2dl	EPR/PF0230G H/A001	Using waste exemption	Both agricultural and non- agricultural waste	Burning of waste as a fuel in a small appliance
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Storing waste exemption	Not on a farm	Storage of waste in a secure place
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Using waste exemption	Not on a farm	Use of waste in construction
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Using waste exemption	Not on a farm	Spreading of plant matter to confer benefit
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Treating waste exemption	Not on a farm	Treatment of waste aerosol cans
С	244m S	Hemington Fields, The Cottage, Tamworth Road, Shardlow, Derby, De72 2hp	WEX086036	Using waste exemption	Not on a farm	Use of mulch
3	389m W	-	WEX376154	Using waste exemption	Not on a farm	Use of waste in construction
5	409m SW	19, Tenter Road, Moulton Park Industrial Estate, Northampton, Nn3 6pz	WEX093934	Using waste exemption	Not on a farm	Use of waste in construction

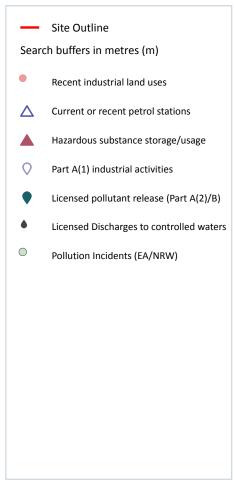
This data is sourced from the Environment Agency and Natural Resources Wales.





4 Current industrial land use





4.1 Recent industrial land uses

Records within 250m 21

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Company	Address	Activity	Category
1	On site	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
2	On site	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
3	On site	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features





ID	Location	Company	Address	Activity	Category
4	On site	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
5	On site	Gas Governor Station	Leicestershire, DE74	Gas Features	Infrastructure and Facilities
7	13m S	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
А	22m N	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
8	28m NE	Electricity Sub Station	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities
9	37m S	Masts (Telecommu nication)	Leicestershire, DE74	Telecommunications Features	Infrastructure and Facilities
А	47m N	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
11	57m N	Electricity Sub Station	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities
12	80m S	Electricity Sub Station	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities
13	83m N	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
А	91m N	Mast (Telecommu nication)	Leicestershire, DE74	Telecommunications Features	Infrastructure and Facilities
15	114m N	Green Motion	Hilton Hotels, Derby Road, Town Centre, Derby, Leicestershire, DE74 2YW	Vehicle Hire and Rental	Hire Services
16	114m N	Pylon	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities
17	121m S	Pumping Station	Leicestershire, DE74	Water Pumping Stations	Industrial Features
18	168m NW	Electricity Sub Station	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities
19	201m S	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features
20	208m S	Gantry	Leicestershire, DE74	Travelling Cranes and Gantries	Industrial Features





ID	Location	Company	Address	Activity	Category
21	211m N	Pylon	Leicestershire, DE74	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m 1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Company	Address	LPG	Status
23	375m S	ВР	M1 J23a, A453, Castle Donington, Derby, Leicestershire, DE74 2TN	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m 0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m 0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m 0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.





4.6 Control of Major Accident Hazards (COMAH)

Records within 500m 0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m 0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Details	
25	447m SW	Application reference number: No Details Application status: Approved Application date: No Details Address: Gasrec Ltd, Zone B, East Midlands Gateway, Leicestershire, England, DE74 2DL	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m 0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.





4.10 Licensed industrial activities (Part A(1))

Records within 500m 3

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Details	
В	468m NE	Operator: Refresco Drinks UK Ltd Installation Name: Cott Beverages - EPR/MP3735SN Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: MP3730QS Original Permit Number: MP3735SN	EPR Reference: - Issue Date: 15/05/2018 Effective Date: 15/05/2018 Last date noted as effective: 21/03/2023 Status: Effective
В	468m NE	Operator: Refresco Drinks UK Ltd Installation Name: Cott Beverages - EPR/MP3735SN Process: ASSOCIATED PROCESS Permit Number: MP3730QS Original Permit Number: MP3735SN	EPR Reference: - Issue Date: 15/05/2018 Effective Date: 15/05/2018 Last date noted as effective: 21/03/2023 Status: Effective
В	468m NE	Operator: REFRESCO DRINKS UK LIMITED Installation Name: Kegworth Site Process: DIRECTLY ASSOCIATED ACTIVITY (INCLUDED) Permit Number: MP3735SN Original Permit Number: MP3735SN	EPR Reference: EPR/MP3735SN Issue Date: 15/05/2018 Effective Date: 15/05/2018 Last date noted as effective: 29/10/2024 Status: Effective

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m 2

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Address	Details	
24	422m S	Moto Hospitality Ltd (BP), Donington Park Service Station, Junction 23A, Ashby Road, Castle Donington, Derby, DE74 2TN	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No enforcements notified Date of enforcement: No enforcements notified Comment: No enforcements notified





ID	Location	Address	Details	
26	488m N	Lafarge Aggregates Ltd, Lockington Quarry, Warren Lane, Lockington, Leicestershire, DE74 2RG	Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No enforcements notified Date of enforcement: No enforcements notified Comment: No enforcements notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m 0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m 2

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on page-32 >

ID	Location	Address	Details	
10	43m N	HILTONHOTELSTP,LOCKINGT ON,LEICESTERSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: T/59/20516/S Permit Version: 1 Receiving Water: TRIB OF RIVER SOAR	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 10/09/1990 Effective Date: 10/09/1990 Revocation Date: 09/09/2003
14	87m N	RAILTERMINALPHASE2,EAST MIDLANDSGATEWAY,KEGWO RTH,DERBYSHIRE,DE742DL	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: EPREP3529PX Permit Version: 1 Receiving Water: LOCKINGTON BROOK	Status: NEW ISSUED UNDER EPR 2010 Issue date: 18/08/2023 Effective Date: 18/08/2023 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.





4.14 Pollutant release to surface waters (Red List)

Records within 500m 0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m 0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m 2

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on page 32 >





ID	Location	Details	
6	On site	Incident Date: 30/07/2001 Incident Identification: 20190 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Natural Organic Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
22	280m SE	Incident Date: 16/10/2003 Incident Identification: 196505 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m 0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m 0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m 0

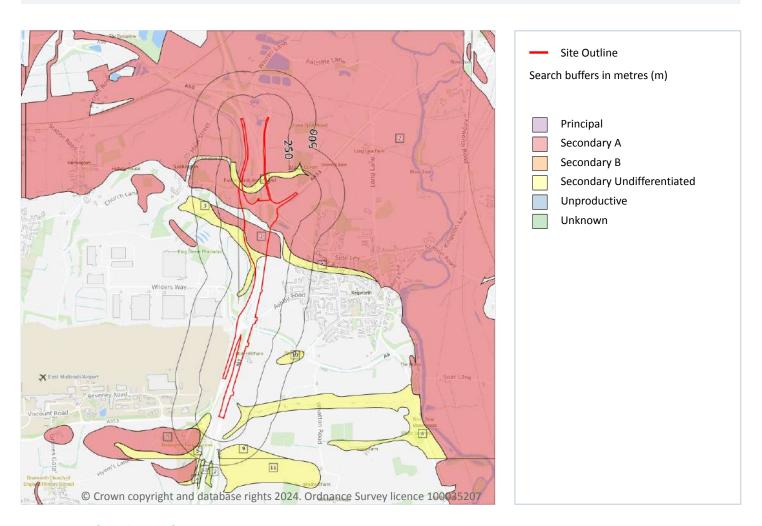
The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.





5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m 14

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on page 40 >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers





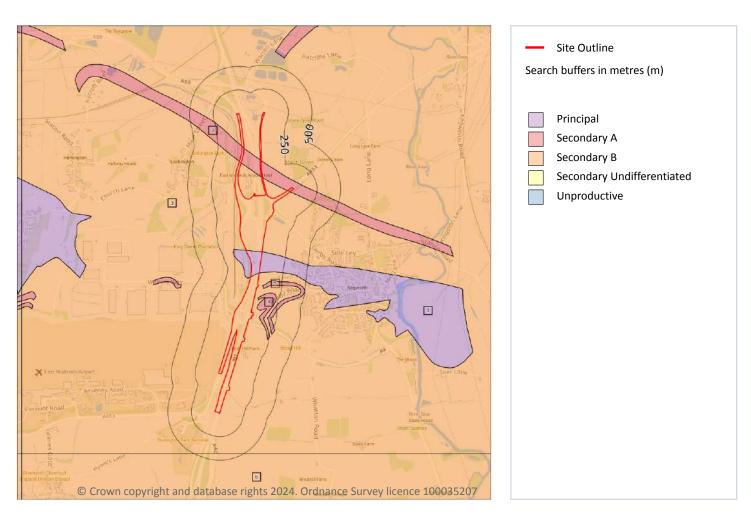
ID	Location	Designation	Description
3	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	82m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	90m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	156m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	253m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
9	307m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
10	338m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
11	434m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
12	471m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
13	478m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
14	497m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.





Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 42 >

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers





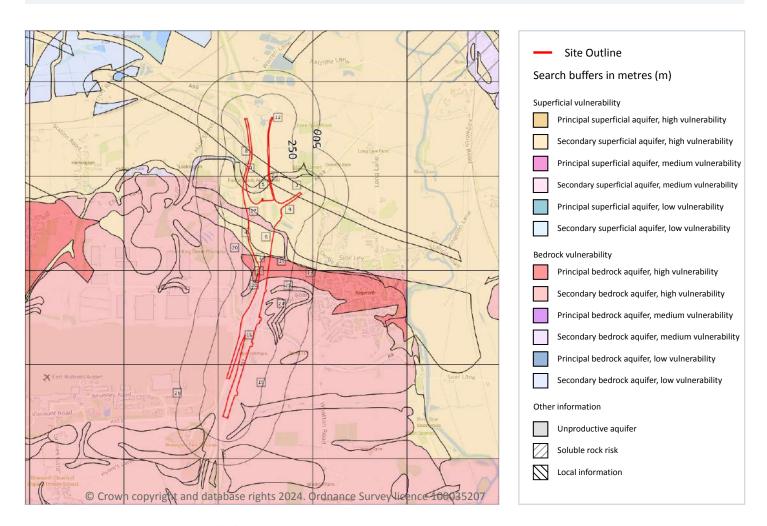
ID	Location	Designation	Description
3	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers
4	38m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	45m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
6	434m S	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.





Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m 26

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium Intermediate between high and low vulnerability.
- Low Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on page 44 >





ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
6	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures





ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
7	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
8	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
9	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
10	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
11	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
12	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures





ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
13	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
14	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
15	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
16	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
17	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
18	2m SE	Summary Classification:	Leaching class:	Vulnarability: Madium	Moderno de la Ultra de 110 e la
		Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures





ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
20	23m N	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
21	25m N	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
22	27m N	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
23	34m S	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
24	38m S	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
25	45m SE	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
26	48m S	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.





5.4 Groundwater vulnerability- soluble rock risk

Records on site 0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site 0

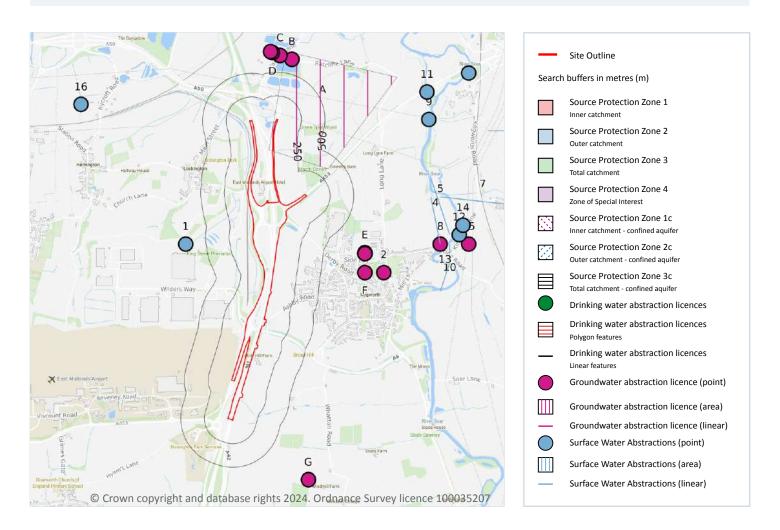
This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.





Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m 22

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 50 >

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ID	Location	Details	
A	On site	Status: Active Licence No: MD/028/0059/004 Details: Dewatering Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY Data Type: Poly4 Name: Tarmac Trading Limited Easting: 447660 Northing: 329342	Annual Volume (m³): 1760000 Max Daily Volume (m³): 6400 Original Application No: NPS/NA/000749 Original Start Date: 24/10/2022 Expiry Date: 31/03/2037 Issue No: 1 Version Start Date: 24/10/2022 Version End Date: -
A	On site	Status: Active Licence No: MD/028/0059/007 Details: Dust Suppression Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY Data Type: Poly4 Name: Tarmac Trading Limited Easting: 447660 Northing: 329342	Annual Volume (m³): 13750 Max Daily Volume (m³): 50 Original Application No: NPS/NA/000748 Original Start Date: 24/10/2022 Expiry Date: 31/03/2037 Issue No: 1 Version Start Date: 24/10/2022 Version End Date: -
В	657m N	Status: Active Licence No: 03/28/59/0012/R01 Details: Mineral Washing Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - BORROW PIT Data Type: Point Name: Tarmac Trading Limited Easting: 447727 Northing: 329260	Annual Volume (m³): 1036619 Max Daily Volume (m³): 6829.1 Original Application No: NPS/WR/038710 Original Start Date: 01/04/2018 Expiry Date: 31/03/2025 Issue No: 3 Version Start Date: 26/08/2022 Version End Date: -
В	657m N	Status: Active Licence No: 03/28/59/0012/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - BORROW PIT Data Type: Point Name: Tarmac Trading Limited Easting: 447727 Northing: 329260	Annual Volume (m³): 1036619 Max Daily Volume (m³): 6829.1 Original Application No: NPS/WR/038710 Original Start Date: 01/04/2018 Expiry Date: 31/03/2025 Issue No: 3 Version Start Date: 26/08/2022 Version End Date: -
С	679m N	Status: Historical Licence No: 03/28/59/0012 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - BORROW PIT Data Type: Point Name: Tarmac Aggregates Limited Easting: 447600 Northing: 329300	Annual Volume (m³): 1878000 Max Daily Volume (m³): 6829 Original Application No: - Original Start Date: 02/01/2001 Expiry Date: 31/03/2018 Issue No: 5 Version Start Date: 26/10/2015 Version End Date: -





ID	Location	Details	
С	679m N	Status: Historical Licence No: 03/28/59/0012 Details: Mineral Washing Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - BORROW PIT Data Type: Point Name: Tarmac Aggregates Limited Easting: 447600 Northing: 329300	Annual Volume (m³): 1878000 Max Daily Volume (m³): 6829 Original Application No: - Original Start Date: 02/01/2001 Expiry Date: 31/03/2018 Issue No: 5 Version Start Date: 26/10/2015 Version End Date: -
D	707m N	Status: Active Licence No: 03/28/59/0012/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - SEEPAGE LAGOONS Data Type: Point Name: Tarmac Trading Limited Easting: 447520 Northing: 329327	Annual Volume (m³): 1036619 Max Daily Volume (m³): 6829.1 Original Application No: NPS/WR/038710 Original Start Date: 01/04/2018 Expiry Date: 31/03/2025 Issue No: 3 Version Start Date: 26/08/2022 Version End Date: -
D	707m N	Status: Active Licence No: 03/28/59/0012/R01 Details: Mineral Washing Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - SEEPAGE LAGOONS Data Type: Point Name: Tarmac Trading Limited Easting: 447520 Northing: 329327	Annual Volume (m³): 1036619 Max Daily Volume (m³): 6829.1 Original Application No: NPS/WR/038710 Original Start Date: 01/04/2018 Expiry Date: 31/03/2025 Issue No: 3 Version Start Date: 26/08/2022 Version End Date: -
D	721m N	Status: Historical Licence No: 03/28/59/0012 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - SEEPAGE LAGOONS Data Type: Point Name: Tarmac Aggregates Limited Easting: 447500 Northing: 329340	Annual Volume (m³): 1878000 Max Daily Volume (m³): 6829 Original Application No: - Original Start Date: 02/01/2001 Expiry Date: 31/03/2018 Issue No: 5 Version Start Date: 26/10/2015 Version End Date: -
D	721m N	Status: Historical Licence No: 03/28/59/0012 Details: Mineral Washing Direct Source: Groundwater Midlands Region Point: LOCKINGTON QUARRY - SEEPAGE LAGOONS Data Type: Point Name: Tarmac Aggregates Limited Easting: 447500 Northing: 329340	Annual Volume (m³): 1878000 Max Daily Volume (m³): 6829 Original Application No: - Original Start Date: 02/01/2001 Expiry Date: 31/03/2018 Issue No: 5 Version Start Date: 26/10/2015 Version End Date: -





ID	Location	Details	
Е	862m E	Status: Historical Licence No: 03/28/59/0003 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: KEGWORTH - CATCHPIT Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327210	Annual Volume (m³): 9999 Max Daily Volume (m³): 227 Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2005 Version End Date: -
Е	869m E	Status: Historical Licence No: 03/28/59/0003 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: KEGWORTH - WELLS Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327200	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 07/04/1970 Version End Date: -
E	869m E	Status: Historical Licence No: 03/28/59/0003 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: KEGWORTH-WELL Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327200	Annual Volume (m³): 9999 Max Daily Volume (m³): 227 Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2005 Version End Date: -
E	869m E	Status: Historical Licence No: 03/28/59/0003 Details: Process Water Direct Source: Groundwater Midlands Region Point: KEGWORTH - WELLS Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327200	Annual Volume (m³): 9999 Max Daily Volume (m³): 227 Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2005 Version End Date: -
F	961m E	Status: Historical Licence No: 03/28/59/0003 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: KEGWORTH - CATCHPIT Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327000	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 07/04/1970 Version End Date: -





ID	Location	Details	
F	961m E	Status: Historical Licence No: 03/28/59/0003 Details: Process Water Direct Source: Groundwater Midlands Region Point: KEGWORTH - CATCHPIT Data Type: Point Name: SLACK & PARR LTD Easting: 448500 Northing: 327000	Annual Volume (m³): 9999 Max Daily Volume (m³): 227 Original Application No: - Original Start Date: 07/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2005 Version End Date: -
G	1021m S	Status: Active Licence No: 03/28/57/0108 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: WHATTON HOUSE, NR LONG WHATTON - B/HOLE Data Type: Point Name: LORD CRAWSHAW Easting: 447900 Northing: 324800	Annual Volume (m³): 4773.3 Max Daily Volume (m³): 45.46 Original Application No: - Original Start Date: 12/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
G	1021m S	Status: Active Licence No: 03/28/57/0108 Details: Spray Irrigation - Direct Direct Source: Groundwater Midlands Region Point: WHATTON HOUSE, NR LONG WHATTON - B/HOLE Data Type: Point Name: LORD CRAWSHAW Easting: 447900 Northing: 324800	Annual Volume (m³): 4773.3 Max Daily Volume (m³): 45.46 Original Application No: - Original Start Date: 12/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
2	1152m E	Status: Historical Licence No: 03/28/59/0006 Details: Spray Irrigation - Direct Direct Source: Groundwater Midlands Region Point: BOWLING GREEN - WELL Data Type: Point Name: KEGWORTH BOWLS CLUB Easting: 448700 Northing: 327000	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 12/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -
-	1190m N	Status: Active Licence No: 03/28/59/0008/G Details: Spray Irrigation - Direct Direct Source: Groundwater Midlands Region Point: LOCKINGTON GROUNDS,NOTTS - POND Data Type: Point Name: R OLDERSHAW LTD Easting: 447400 Northing: 329800	Annual Volume (m³): 2273 Max Daily Volume (m³): 200.02 Original Application No: - Original Start Date: 18/08/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/08/1966 Version End Date: -





ID	Location	Details	
8	1507m E	Status: Historical Licence No: 03/28/57/0064 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: BRIDGE FARM - WELL (1) Data Type: Point Name: MELLORS Easting: 449300 Northing: 327300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 03/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -
15	1792m E	Status: Historical Licence No: 03/28/57/0064 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: BRIDGE FARM - WELL (2) Data Type: Point Name: MELLORS Easting: 449600 Northing: 327300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 03/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m 12

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 50 >

ID	Location	Details	
1	715m W	Status: Historical Licence No: 03/28/59/0004 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface Water Midlands Region Point: LOCKINGTON - SPRINGS Data Type: Point Name: EXECUTORS OF J CURZON Easting: 446600 Northing: 327300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 26/04/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -





ID	Location	Details	
4	1318m NE	Status: Active Licence No: 03/28/57/0123 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: BRIDGE FARM, KEGWORTH - RIVER SOAR Data Type: Line Name: MELLORS Easting: 449300 Northing: 327300	Annual Volume (m³): 22730 Max Daily Volume (m³): 655 Original Application No: - Original Start Date: 12/09/1977 Expiry Date: - Issue No: 100 Version Start Date: 12/09/1977 Version End Date: -
5	1331m NE	Status: Historical Licence No: 03/28/57/0090 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: CHURCH FARM,KINGSTON - RIVER SOAR Data Type: Line Name: N BEEBY & SON Easting: 449200 Northing: 328000	Annual Volume (m³): 14879.058 Max Daily Volume (m³): 654.62 Original Application No: - Original Start Date: 13/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/2005 Version End Date: -
-	1385m N	Status: Historical Licence No: 03/28/59/0008/S Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: LOCKINGTON GROUND, NOTTS - TRIBUTARY OF RIVER TRENT Data Type: Point Name: R OLDERSHAW LTD Easting: 447700 Northing: 330000	Annual Volume (m³): 2273 Max Daily Volume (m³): 200.024 Original Application No: - Original Start Date: 18/08/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/08/1966 Version End Date: -
7	1418m E	Status: Historical Licence No: 03/28/57/0090 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: CHURCH FARM,KINGSTON - KINGSTON BROOK Data Type: Line Name: N BEEBY & SON Easting: 449300 Northing: 327800	Annual Volume (m³): 14879.058 Max Daily Volume (m³): 654.62 Original Application No: - Original Start Date: 13/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/2005 Version End Date: -
9	1529m NE	Status: Historical Licence No: 03/28/59/0011 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: LAND AT RATCLIFFE ON SOAR - RIVER SOAR Data Type: Point Name: WHITWORTH Easting: 449180 Northing: 328620	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 12/12/1996 Expiry Date: - Issue No: 100 Version Start Date: 12/12/1996 Version End Date: -





ID	Location	Details	
10	1602m E	Status: Historical Licence No: 03/28/57/0090 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: CHURCH FARM - SUTTON BONINGTON BROOK Data Type: Line Name: N BEEBY & SON Easting: 449400 Northing: 327300	Annual Volume (m³): 14879.058 Max Daily Volume (m³): 654.62 Original Application No: - Original Start Date: 13/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/2005 Version End Date: -
11	1611m NE	Status: Historical Licence No: MD/028/0059/001 Details: Dust Suppression Direct Source: Surface Water Midlands Region Point: POINT 'B' ON THE RIVER SOAR AT RATCLIFFE ON SOAR, NOTTS Data Type: Point Name: Laing O'Rourke Infrastructure Limited Easting: 449160 Northing: 328913	Annual Volume (m³): 16000 Max Daily Volume (m³): 200 Original Application No: - Original Start Date: 07/10/2013 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 07/10/2013 Version End Date: -
12	1669m E	Status: Historical Licence No: 03/28/58/0017 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: LAND AT KINGSTON ON SOAR - BLACK BROOK Data Type: Point Name: UNIVERSITY OF NOTTINGHAM Easting: 449500 Northing: 327400	Annual Volume (m³): 45801 Max Daily Volume (m³): 1350.18 Original Application No: - Original Start Date: 13/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/09/1977 Version End Date: -
13	1676m E	Status: Active Licence No: 03/28/57/0124 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: BRIDGE FARM, KEGWORTH - RIVER SOAR Data Type: Line Name: MELLORS Easting: 449300 Northing: 326800	Annual Volume (m³): 22730 Max Daily Volume (m³): 655 Original Application No: - Original Start Date: 12/09/1977 Expiry Date: - Issue No: 100 Version Start Date: 12/09/1977 Version End Date: -
14	1687m E	Status: Historical Licence No: 03/28/57/0131 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: SUTTON BONINGTON - RIVER SOAR Data Type: Point Name: UNIVERSITY OF NOTTINGHAM Easting: 449540 Northing: 327500	Annual Volume (m³): 121500 Max Daily Volume (m³): 2727 Original Application No: - Original Start Date: 25/03/1980 Expiry Date: - Issue No: 100 Version Start Date: 01/05/1984 Version End Date: -



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ID	Location	Details	
16	1798m NW	Status: Historical Licence No: 03/28/36/0161 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: RYECROFT ROAD, HEMINGTON - HEMINGTON BRK Data Type: Point Name: T C HIGGINS & SON Easting: 445490 Northing: 328780	Annual Volume (m³): 1250 Max Daily Volume (m³): 125 Original Application No: - Original Start Date: 29/10/1991 Expiry Date: - Issue No: 100 Version Start Date: 03/12/2018 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m 0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m 0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m 0

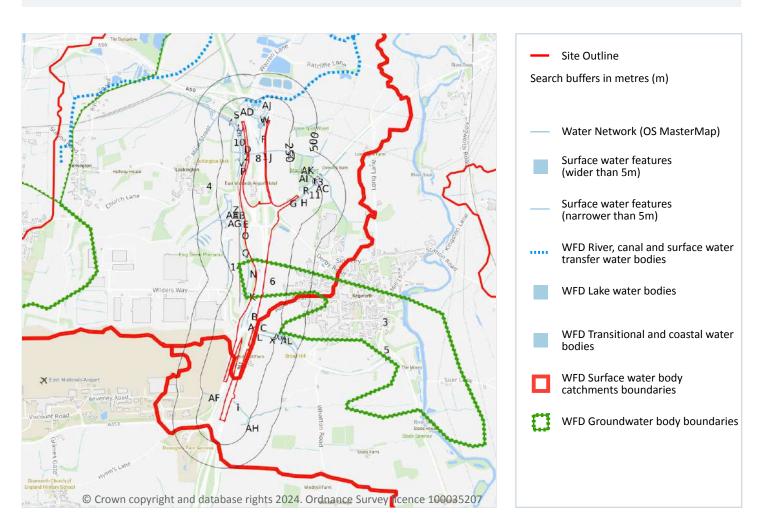
Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.





6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m 109

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on page 59 >

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
2	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Α	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
Α	On site	Manmade watercourse for water transfer.	On ground surface	Watercourse may not contain water all year round	-
В	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	14m S	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
С	14m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-





ID	Location	Type of water feature	Ground level	Permanence	Name
D	15m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Е	15m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	15m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
G	17m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	21m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	22m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Н	24m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	31m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
K	32m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	34m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
L	38m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
M	39m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	43m S	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-





ID	Location	Type of water feature	Ground level	Permanence	Name
K	43m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
N	45m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
0	47m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
L	48m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
0	49m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Р	50m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	51m N	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	54m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
8	55m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	55m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	55m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
F	55m N	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Q	56m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
R	56m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Q	57m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Т	59m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	59m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
S	60m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	61m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	62m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	65m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	67m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
K	71m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
V	71m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	72m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	74m S	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-





ID	Location	Type of water feature	Ground level	Permanence	Name
9	82m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	83m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
W	88m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
l	89m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Χ	92m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
10	92m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	93m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
l	94m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	99m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Υ	99m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	102m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	102m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	102m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
Υ	103m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
11	110m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AA	113m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
AB	116m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	119m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AC	122m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АВ	123m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	124m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AD	124m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	133m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AB	135m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
I	137m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	142m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
Z	143m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
13	156m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	157m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	157m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AF	160m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	163m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
14	167m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	173m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	173m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	174m N	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
АН	175m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	201m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	202m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
AG	206m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АН	214m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	215m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	215m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
W	215m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AI	216m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AI	219m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AG	220m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AJ	221m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AK	221m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АН	231m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АН	232m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АН	237m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
АН	238m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
АН	239m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AL	242m S	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
AG	249m NW	Manmade watercourse for water transfer.	On ground surface	Watercourse may not contain water all year round	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m 60

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on page 59 >

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site 2

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on page 59 >

ID	Location	Туре	Water body catchment	Water body ID	Operational catchment	Management catchment
3	On site	River	Soar from Long Whatton Brook to Trent	GB104028047212	Soar River	Soar
4	On site	River	Hemington Brook Catchment (trib of the Soar)	GB104028047410	Soar River	Soar





This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified 2

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on page 59 >

ID	Location	Туре	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
16	216m N	River	Hemington Brook Catchment (trib of the Soar)	GB104028047410 7	Bad	Fail	Bad	2019
-	1286m NE	River	Soar from Long Whatton Brook to Trent	GB104028047212 ↗	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site 2

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on page 59 >

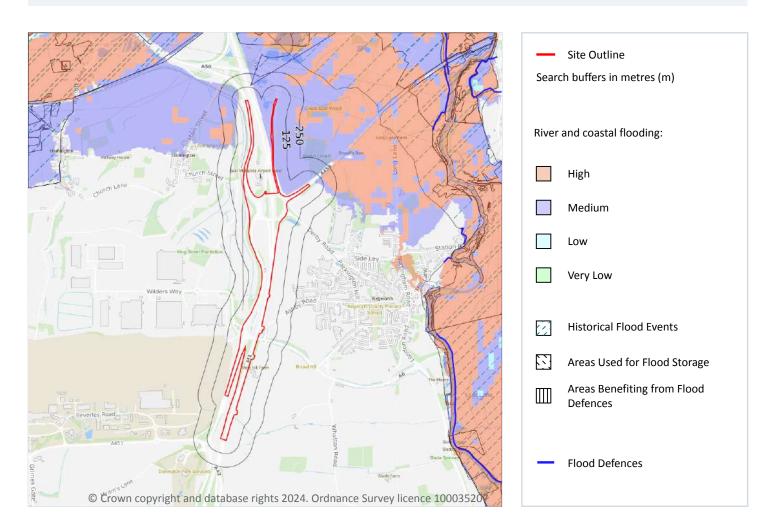
ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
5	On site	Soar - PT Sandstone	GB40401G302800 ↗	Poor	Poor	Good	2019
6	On site	Soar - Secondary Combined	GB40402G990600 ⊅	Good	Good	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.





7 River and coastal flooding



7.1 Risk of flooding from rivers and the sea

Records within 50m 3

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on page 70 >





Distance	Flood risk category
On site	High
0 - 50m	High

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m 2

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on page 70 >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
А	142m N	Trent 1932 Shardlow & Notts	1932-01-01 1932-01-01	Main river	Channel capacity exceeded (no raised defences)	Fluvial
А	142m N	Trent 1932 Shardlow & Notts	1932-01-01 1932-01-01	Main river	Channel capacity exceeded (no raised defences)	Fluvial

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.





7.5 Flood Storage Areas

Records within 250m 0

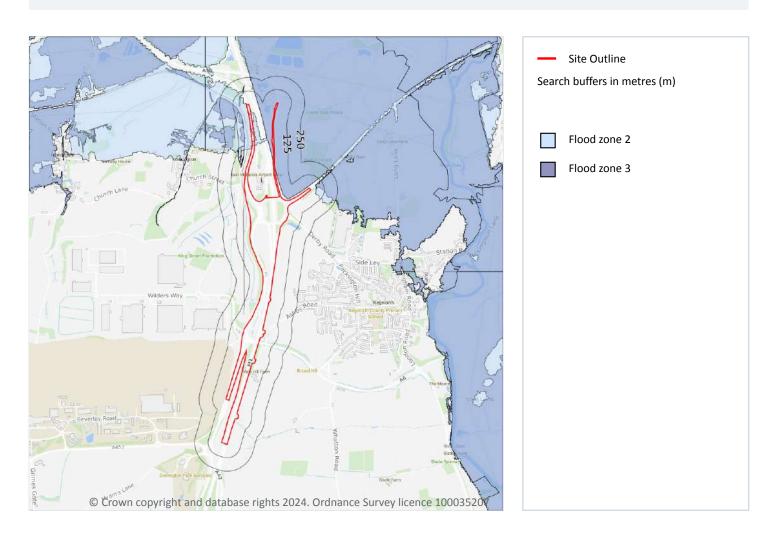
Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.





River and coastal flooding - Flood Zones



7.6 Flood Zone 2

Records within 50m 1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on page 70 >

Location Type
On site Zone 2 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.





1

7.7 Flood Zone 3

Records within 50m

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on page 70 >

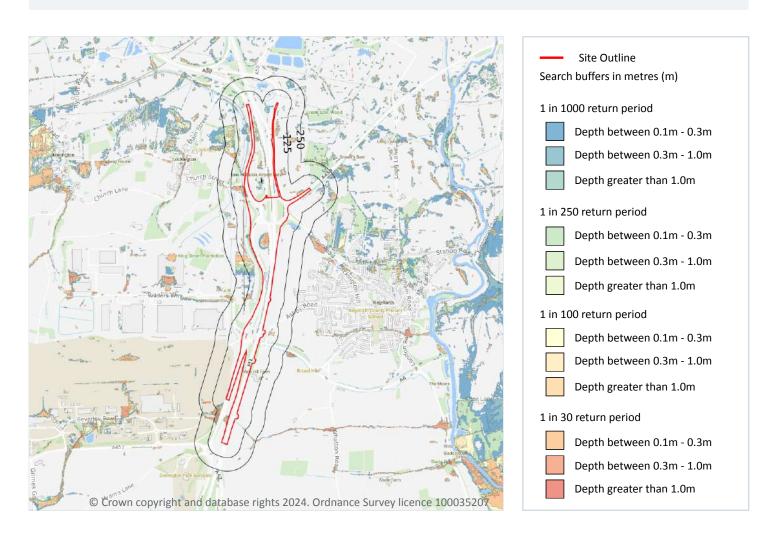
Location	Туре
On site	Zone 3 - (Fluvial Models)

This data is sourced from the Environment Agency and Natural Resources Wales.





8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on page 75 >

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.





The table below shows the maximum flood depths for a range of return periods for the site.

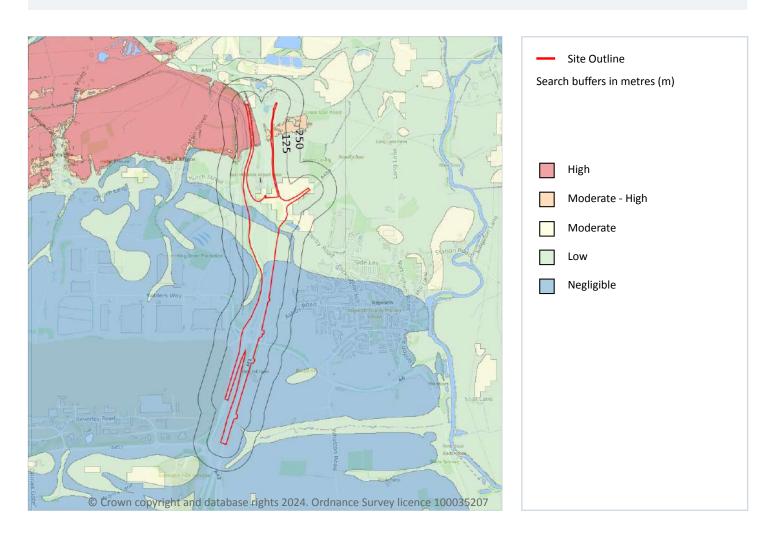
Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.





9 Groundwater flooding



9.1 Groundwater flooding

Hig	ghest risk on site	High
Hig	ghest risk within 50m	High

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

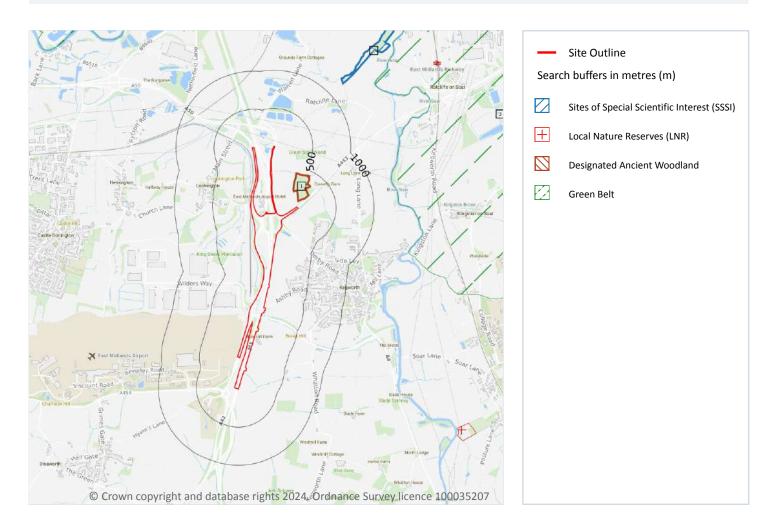
Features are displayed on the Groundwater flooding map on page 77 >

This data is sourced from Ambiental Risk Analytics.





10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m 1

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on page 78 >

ID	Location	Name	Data source
2	1220m NE	Lockington Marshes	Natural England





This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m 0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m 0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m 0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m 0

01273 257 755

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.





10.6 Local Nature Reserves (LNR)

Records within 2000m 0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m 1

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on page 78 >

ID	Location	Name	Woodland Type
1	81m NE	March Covert	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m 0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.





1

10.10 Marine Conservation Zones

Records within 2000m 0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

Areas designated to prevent urban sprawl by keeping land permanently open.

Features are displayed on the Environmental designations map on page 78 >

ID	Location	Name	Local Authority name
3	1279m NE	Derby and Nottingham Green Belt	Rushcliffe

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m 0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m 0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.





10.14 Potential Special Protection Areas (pSPA)

Records within 2000m 0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m 0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m 4

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

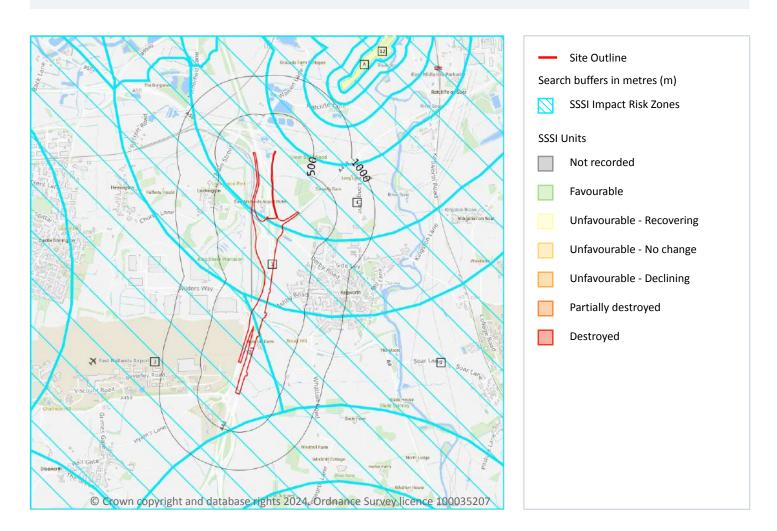
Location	Name	Туре	NVZ ID	Status
On site	SOAR R NVZ	Surface Water	309	Existing
On site	SOAR R NVZ	Surface Water	309	Existing
On site	Burton	Groundwater	34	Existing
1322m SE	Burton	Groundwater	34	Existing

This data is sourced from Natural England and Natural Resources Wales.





SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site 4

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on page 83 >





ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
2	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
3	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
4	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.





2

10.18 SSSI Units

Records within 2000m

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on page 83 >

ID: A

Location: 1220m NE

SSSI name: Lockington Marshes

Unit name: South Marsh

Broad habitat: Neutral Grassland - Lowland Condition: Unfavourable - Recovering

Reportable features:

Feature name	Feature condition	Date of assessment
Invert. assemblage W3 permanent wet mire	Unfavourable - Recovering	01/07/2014
Lowland fens, including basin, flood-plain, open water transition and valley fens	Favourable	01/07/2014

ID: 12

Location: 1828m NE

SSSI name: Lockington Marshes

Unit name: South Carr

Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland

Condition: Unfavourable - Recovering

Reportable features:

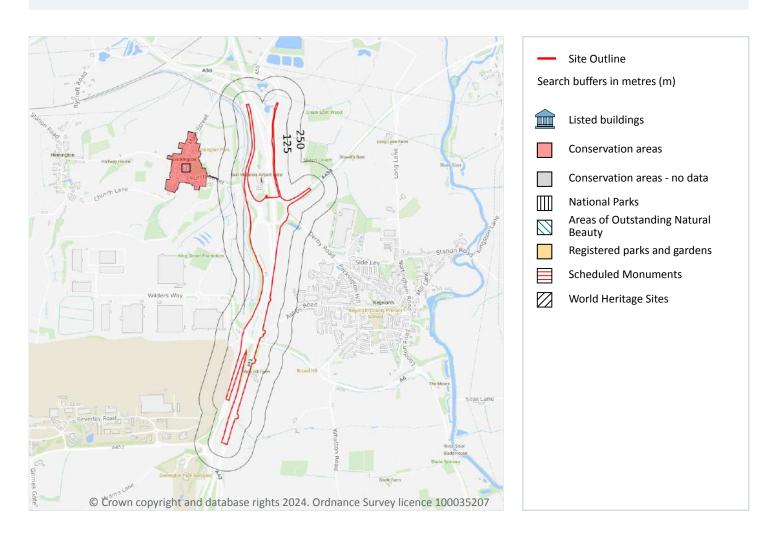
Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Unfavourable - Recovering	01/07/2014

This data is sourced from Natural England and Natural Resources Wales.





11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m 0

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01273 257 755

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.





11.2 Area of Outstanding Natural Beauty

Records within 250m 0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m 0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m 0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m 1

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.





Features are displayed on the Visual and cultural designations map on page 86 >

ID	Location	Name	District	Date of designation
1	250m NW	Lockington	North West Leicestershire	08/09/1992

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m 0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m 0

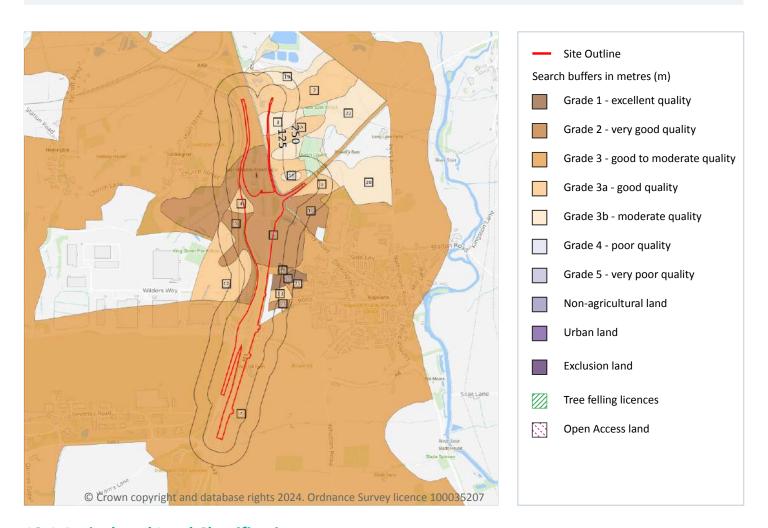
Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.





12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m 20

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on page 89 >

ID	Location	Classification	Description
2	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.





ID	Location	Classification	Description
3	On site	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
4	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
5	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
6	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
7	On site	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
Α	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
9	3m NE	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
11	16m NE	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
А	19m N	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
12	20m N	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.





ID	Location	Classification	Description
13	42m SE	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
14	49m SE	Grade 1	Excellent quality agricultural land. Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.
16	56m NE	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
17	59m SE	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
18	90m E	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
19	127m N	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
20	162m NE	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
21	205m SE	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
22	215m NE	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

This data is sourced from Natural England.





12.2 Open Access Land

Records within 250m 0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m 0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m 5

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

Location	Reference	Scheme	Start Date	End date
13m E	AG00659932	Entry Level plus Higher Level Stewardship	01/09/2011	31/08/2021
16m N	AG00659932	Entry Level plus Higher Level Stewardship	01/09/2011	31/08/2021
28m NE	AG00659932	Entry Level plus Higher Level Stewardship	01/09/2011	31/08/2021
77m N	AG00659932	Entry Level plus Higher Level Stewardship	01/09/2011	31/08/2021
190m S	AG00591636	Entry Level plus Higher Level Stewardship	01/10/2014	30/09/2024

This data is sourced from Natural England.





12.5 Countryside Stewardship Schemes

Records within 250m 0

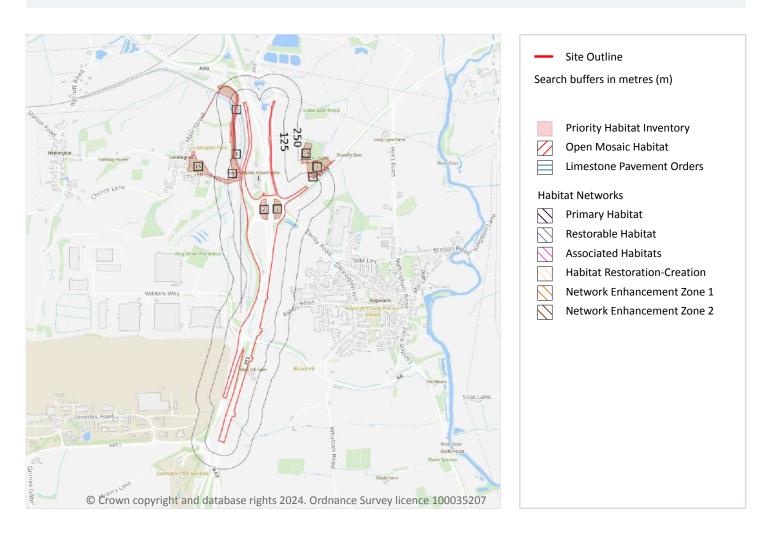
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.





13 Habitat designations



13.1 Priority Habitat Inventory

Records within 250m 15

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on page 94 >

ID	Location	Main Habitat Other habitats		
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)	
2	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)	
3	12m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)	
4	13m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)	





ID	Location	Main Habitat	Other habitats
5	48m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	61m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	64m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	66m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	70m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	96m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	109m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	127m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	213m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
14	215m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
15	250m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m 0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m 0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.





13.4 Limestone Pavement Orders

Records within 250m 0

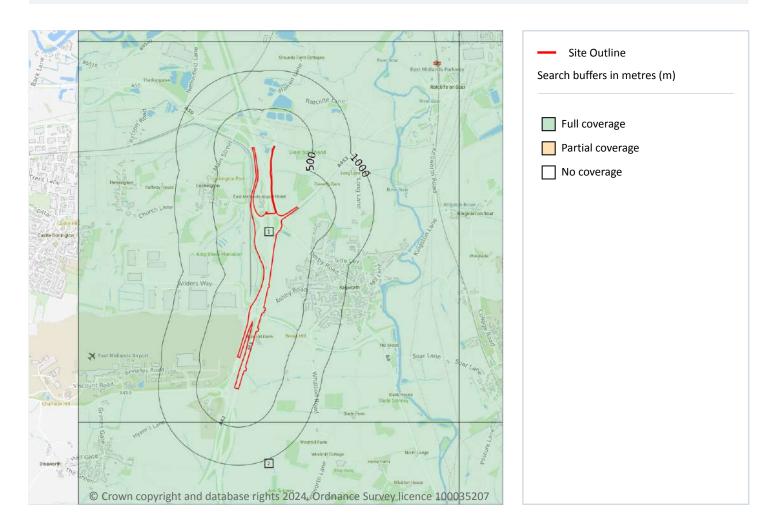
Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.





14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m 2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on page 97 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SK42NE
2	434m S	Full	Full	Full	No coverage	SK42SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



14.2 Artificial and made ground (10k)

Records within 500m 32

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on page 98 >

ID Lo	ocation	LEX Code	Description	Rock description
1 Oı	n site	WGR-VOID	Worked Ground (Undivided)	Void
2 Oı	n site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3 Oı	n site	WGR-VOID	Worked Ground (Undivided)	Void
4 Oı	n site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit





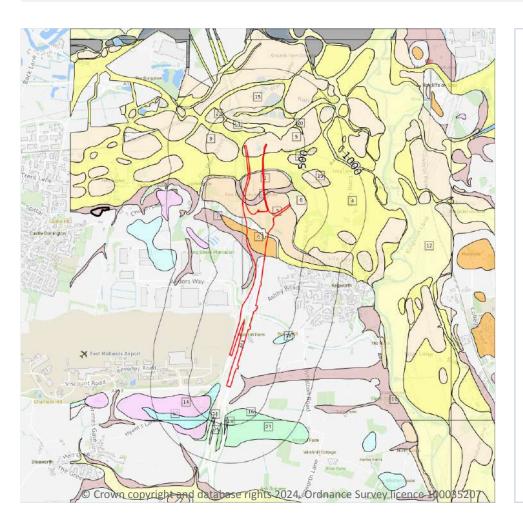
ID	Location	LEX Code	Description	Rock description
5	On site	WGR-VOID	Worked Ground (Undivided)	Void
6	On site	WGR-VOID	Worked Ground (Undivided)	Void
Α	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	4m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	12m N	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
9	21m SE	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
10	30m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
В	33m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
В	35m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
11	46m S	WGR-VOID	Worked Ground (Undivided)	Void
12	149m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
13	167m SE	DDGR-UKNOWN	Disturbed Ground (Undivided)	Unknown/unclassified Entry
С	207m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
С	216m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
14	222m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
D	253m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
С	267m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
15	329m N	WGR-VOID	Worked Ground (Undivided)	Void
16	346m E	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
17	376m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit
18	382m NE	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
19	424m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
D	435m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
20	437m S	WGR-VOID	Worked Ground (Undivided)	Void
21	469m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
22	474m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
23	485m NW	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
А	499m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.





Geology 1:10,000 scale - Superficial



Site OutlineSearch buffers in metres (m)

Landslip (10k)

Superficial geology (10k) Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m 27

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 100 >

ID	Location	LEX Code	Description	Rock description
1	On site	WASG-XSV	Wanlip Member - Sand And Gravel	Sand And Gravel
2	On site	HEAD- DMTN	Head - Diamicton	Diamicton
3	On site	WASG-XSV	Wanlip Member - Sand And Gravel	Sand And Gravel







ID	Location	LEX Code	Description	Rock description
4	On site	HETD-XSV	Hemington Member - Sand And Gravel	Sand And Gravel
5	On site	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
6	On site	EGSG-XSV	Egginton Common Sand And Gravel Member - Sand And Gravel	Sand And Gravel
7	On site	HEAD- DMTN	Head - Diamicton	Diamicton
8	6m NE	SYSG-XSV	Syston Member - Sand And Gravel	Sand And Gravel
9	76m N	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
10	81m S	ODT-DMTN	Oadby Member - Diamicton	Diamicton
11	87m S	HEAD- DMTN	Head - Diamicton	Diamicton
12	154m N	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
13	163m N	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
14	260m S	GFDUA-XSV	Glaciofluvial Deposits, Anglian - Sand And Gravel	Sand And Gravel
15	267m N	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
16	307m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton
17	317m N	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
18	344m S	THT-DMTN	Thrussington Member - Diamicton	Diamicton
19	380m NE	SYSG-XSV	Syston Member - Sand And Gravel	Sand And Gravel
20	402m N	HETD-XSV	Hemington Member - Sand And Gravel	Sand And Gravel
21	406m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton
22	425m N	HPSG-XSV	Holme Pierrepont Sand And Gravel Member - Sand And Gravel	Sand And Gravel
23	434m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton
24	436m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton
25	479m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton
26	486m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton





ID	Location	LEX Code	Description	Rock description
27	491m S	ODTT-DMTN	Oadby Member (trias-rich) - Diamicton	Diamicton

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

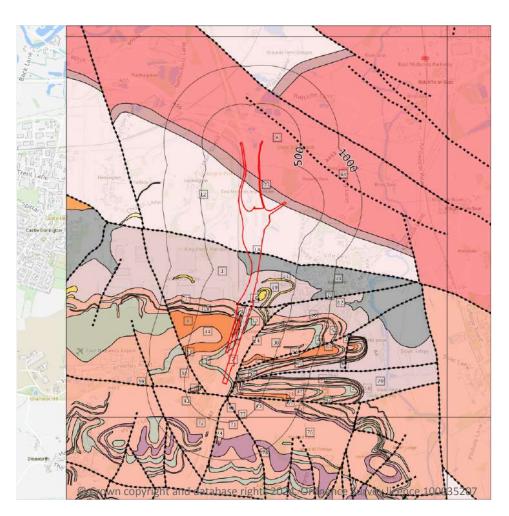
Records within 500m 0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.





Geology 1:10,000 scale - Bedrock



Site Outline

Bedrock faults and other linear features (10k)

Search buffers in metres (m)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m 62

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 103 >

ID	Location	LEX Code	Description	Rock age
1	On site	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
2	On site	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
3	On site	GUN-SDST	Gunthorpe Member - Sandstone	Ladinian Age - Anisian Age





ID	Location	LEX Code	Description	Rock age
4	On site	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
5	On site	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
6	On site	BCMU- MDST	Branscombe Mudstone Formation - Mudstone	Rhaetian Age - Norian Age
7	On site	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
8	On site	GUN-SDST	Gunthorpe Member - Sandstone	Ladinian Age - Anisian Age
9	On site	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
10	On site	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
11	On site	BMS-SDST	Bromsgrove Sandstone Formation - Sandstone	Anisian Age - Early Triassic Epoch
12	On site	EDW-MDST	Edwalton Member - Mudstone	Carnian Age
13	On site	AS-SDST	Arden Sandstone Formation - Sandstone	Carnian Age
17	4m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
18	33m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
19	47m S	TPSF-SDST	Tarporley Siltstone Formation - Sandstone	Anisian Age - Olenekian Age
20	50m S	TPSF-SDST	Tarporley Siltstone Formation - Sandstone	Anisian Age - Olenekian Age
21	56m SE	TPSF-SDST	Tarporley Siltstone Formation - Sandstone	Anisian Age - Olenekian Age
22	70m S	TPSF-SDST	Tarporley Siltstone Formation - Sandstone	Anisian Age - Olenekian Age
23	80m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
25	81m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
27	84m S	GUN-SDST	Gunthorpe Member - Sandstone	Ladinian Age - Anisian Age
28	90m S	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
29	93m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
30	98m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
31	99m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
32	100m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
33	103m S	GUN-SDST	Gunthorpe Member - Sandstone	Ladinian Age - Anisian Age
35	103m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age





ID	Looption	LEV Codo	Description	Dock age
ID	Location	LEX Code	Description	Rock age
36	117m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
37	119m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
38	153m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
39	158m S	TPSF-SDST	Tarporley Siltstone Formation - Sandstone	Anisian Age - Olenekian Age
40	159m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
41	161m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
43	163m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
45	168m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
46	172m S	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
47	181m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
48	187m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
49	189m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
51	192m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
52	197m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
53	203m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
54	206m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
55	210m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
56	242m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
57	252m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
60	293m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
61	293m S	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
62	297m SE	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
63	297m S	DIS-SDST	Diseworth Sandstone - Sandstone	Ladinian Age
65	320m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
66	351m S	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
67	373m S	GUN-SDST	Gunthorpe Member - Sandstone	Ladinian Age - Anisian Age
68	380m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age



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ID	Location	LEX Code	Description	Rock age
69	381m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
70	411m S	TPSF-MDSS	Tarporley Siltstone Formation - Mudstone, Siltstone And Sandstone	Anisian Age - Olenekian Age
71	434m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
72	445m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
75	453m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
76	460m S	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m 16

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 103 >

14On siteFAULTNormal fault, inferred15On siteFAULTNormal fault, inferred16On siteFAULTNormal fault, inferred2480m SFAULTNormal fault, inferred2681m SFAULTNormal fault, inferred34103m SFAULTNormal fault, inferred42161m SFAULTNormal fault, inferred44163m SFAULTNormal fault, inferred50189m SFAULTNormal fault, inferred	
16On siteFAULTNormal fault, inferred2480m SFAULTNormal fault, inferred2681m SFAULTNormal fault, inferred34103m SFAULTNormal fault, inferred42161m SFAULTNormal fault, inferred44163m SFAULTNormal fault, inferred	
2480m SFAULTNormal fault, inferred2681m SFAULTNormal fault, inferred34103m SFAULTNormal fault, inferred42161m SFAULTNormal fault, inferred44163m SFAULTNormal fault, inferred	
2681 m SFAULTNormal fault, inferred34103 m SFAULTNormal fault, inferred42161 m SFAULTNormal fault, inferred44163 m SFAULTNormal fault, inferred	
34103m SFAULTNormal fault, inferred42161m SFAULTNormal fault, inferred44163m SFAULTNormal fault, inferred	
42 161m S FAULT Normal fault, inferred 44 163m S FAULT Normal fault, inferred	
44 163m S FAULT Normal fault, inferred	
50 189m S FAULT Normal fault, inferred	
58 252m S FAULT Normal fault, inferred	
59 252m S FAULT Normal fault, inferred	
64 313m N FAULT Normal fault, inferred	
73 445m S FAULT Normal fault, inferred	



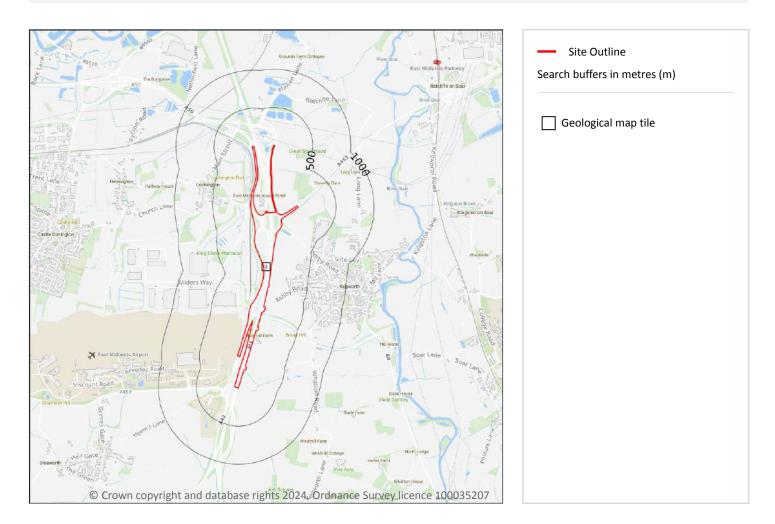


ID	Location	Category	Description
74	448m S	FAULT	Normal fault, inferred
77	460m S	FAULT	Normal fault, inferred
78	470m S	FAULT	Normal fault, inferred





15 Geology 1:50,000 scale - Availability



15.1 50k Availability

Records within 500m 1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on page 108 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW141_loughborough_v4

This data is sourced from the British Geological Survey.



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Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m 0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

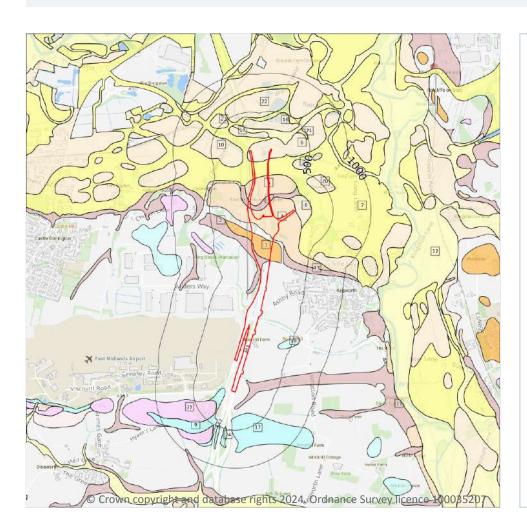
This data is sourced from the British Geological Survey.



Date: 13 December 2024



Geology 1:50,000 scale - Superficial



Site OutlineSearch buffers in metres (m)

Landslip (50k)

Superficial geology (50k) Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m 25

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 110 >

ID	Location	LEX Code	Description	Rock description
1	On site	EGSG-XSV	EGGINTON COMMON SAND AND GRAVEL MEMBER	SAND AND GRAVEL
2	On site	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
3	On site	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL





ID	Location	LEX Code	Description	Rock description
4	On site	WASG-XSV	WANLIP MEMBER	SAND AND GRAVEL
5	On site	WASG-XSV	WANLIP MEMBER	SAND AND GRAVEL
6	On site	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
7	On site	HETD-XZV	HEMINGTON MEMBER	SILT AND GRAVEL
8	11m NE	SYSG-XSV	SYSTON MEMBER	SAND AND GRAVEL
9	82m S	ODT-DMTN	OADBY MEMBER	DIAMICTON
10	85m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
11	90m S	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
12	151m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
13	156m NE	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
14	163m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
15	253m S	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
16	260m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
17	307m S	ODT-DMTN	OADBY MEMBER	DIAMICTON
18	313m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
19	338m S	THT-DMTN	THRUSSINGTON MEMBER	DIAMICTON
20	375m NE	SYSG-XSV	SYSTON MEMBER	SAND AND GRAVEL
21	393m N	HETD-XZV	HEMINGTON MEMBER	SILT AND GRAVEL
22	410m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
23	429m N	HPSG-XSV	HOLME PIERREPONT SAND AND GRAVEL MEMBER	SAND AND GRAVEL
24	471m S	ODT-DMTN	OADBY MEMBER	DIAMICTON
25	478m S	ODT-DMTN	OADBY MEMBER	DIAMICTON





8

15.5 Superficial permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High
On site	Intergranular	Very High	High
On site	Intergranular	Very High	High
On site	Mixed	High	Very Low
On site	Mixed	High	Very Low
On site	Intergranular	High	Moderate
On site	Intergranular	Very High	High
11m NE	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

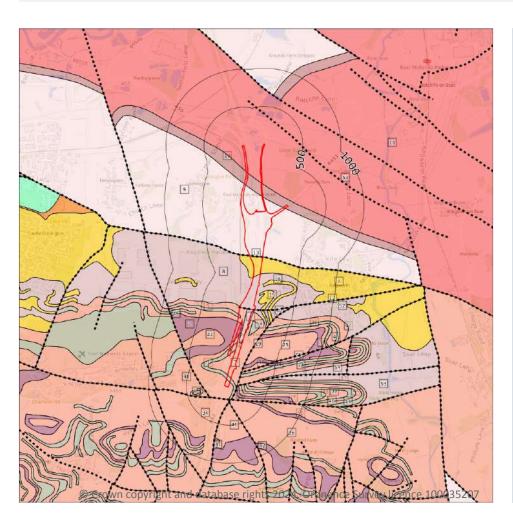
Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).





Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k) Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m 51

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 113 >

ID	Location	LEX Code	Description	Rock age
1	On site	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
2	On site	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
3	On site	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN





ID	Location	LEX Code	Description	Rock age
4	On site	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
5	On site	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
6	On site	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
7	On site	HEY-SDST	HELSBY SANDSTONE FORMATION - SANDSTONE	ANISIAN
8	On site	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
9	On site	EDW-MDST	EDWALTON MEMBER - MUDSTONE	CARNIAN
10	On site	AS-SDST	ARDEN SANDSTONE FORMATION - SANDSTONE	CARNIAN
11	On site	BCMU- MDST	BRANSCOMBE MUDSTONE FORMATION - MUDSTONE	NORIAN
14	28m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
15	38m S	TPSF-SDST	TARPORLEY SILTSTONE FORMATION - SANDSTONE	OLENEKIAN
16	45m SE	TPSF-SDST	TARPORLEY SILTSTONE FORMATION - SANDSTONE	OLENEKIAN
17	72m S	TPSF-SDST	TARPORLEY SILTSTONE FORMATION - SANDSTONE	OLENEKIAN
18	82m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
20	85m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
22	86m S	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
23	93m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
24	95m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
25	101m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
26	106m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
27	106m S	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
28	107m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
30	113m S	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
31	122m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
32	154m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
33	155m S	TPSF-SDST	TARPORLEY SILTSTONE FORMATION - SANDSTONE	OLENEKIAN
34	162m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN





ID	Location	LEX Code	Description	Rock age
36	167m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
38	186m S	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
39	187m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
40	189m S	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
41	193m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
43	196m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
44	210m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
45	215m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
46	238m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
47	239m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
48	246m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
50	280m S	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
51	290m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
52	299m SE	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
54	320m S	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
55	321m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
56	340m S	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
57	370m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
58	377m S	DIS-SDST	DISEWORTH SANDSTONE - SANDSTONE	LADINIAN
59	412m S	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
60	423m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
61	452m S	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN





15.9 Bedrock permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low
On site	Fracture	Moderate	Low
On site	Fracture	Moderate	Low
On site	Fracture	Low	Low
On site	Fracture	High	Moderate
On site	Fracture	Low	Low
On site	Fracture	Low	Low
On site On site	Fracture Mixed	Low	Low Moderate
On site	Mixed	High	Moderate
On site	Mixed Fracture	High High	Moderate Moderate
On site On site	Mixed Fracture Fracture	High High Low	Moderate Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m 10

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 113 >

ID	Location	Category	Description
12	On site	FAULT	Fault, inferred
13	On site	FAULT	Fault, inferred



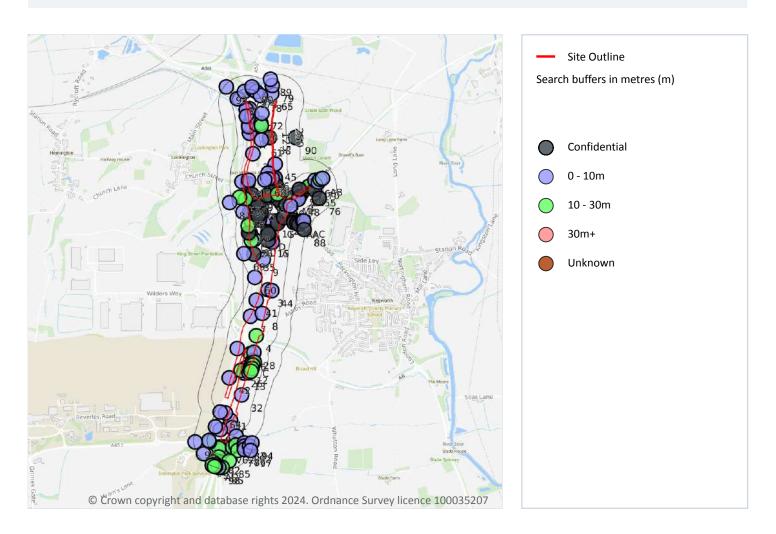


ID	Location	Category	Description
19	82m S	FAULT	Fault, inferred
21	85m S	FAULT	Fault, inferred
29	107m S	FAULT	Fault, inferred
35	162m S	FAULT	Fault, inferred
37	167m S	FAULT	Fault, inferred
42	193m S	FAULT	Fault, inferred
49	246m S	FAULT	Fault, inferred
53	309m N	FAULT	Fault, inferred





16 Boreholes



16.1 BGS Boreholes

Records within 250m 186

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on page 118 >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	447140 325640	M1 EXTENSIONS BH306 KEGWORTH	9.14	N	218144 7
2	On site	447321 327682	A564 DERBY S BYPASS/SPUR BH139	24.45	N	218279 🗷
3	On site	447491 326858	A42 CASTLE DONINGTON 749	4.0	N	218211 7



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ID	Location	Grid reference	Name	Length	Confidential	Web link
4	On site	447380 326430	M1 EXTENSIONS BH309 KEGWORTH	12.19	N	218147 🗷
5	On site	447339 327496	A564 DERBY S BYPASS/SPUR BH140	30.2	N	218280 🗷
6	On site	447330 326260	M1 EXTENSIONS BH308 KEGWORTH	15.24	N	218146 🗷
7	On site	447330 326610	A42 CASTLE DONINGTON BH279	4.0	N	218251 🗷
8	On site	447440 326640	M1 EXTENSIONS BH310 KEGWORTH	7.62	N	218148 🗷
9	On site	447446 327143	A564 DERBY S BYPASS/SPUR TP234	3.0	N	<u>218291</u> ⊅
10	On site	447365 327327	A564 DERBY S BYPASS/SPUR TP233	3.0	N	218290 🗷
11	On site	447530 327500	M1 EXTENSIONS BH312 KEGWORTH	9.14	N	218150 🗷
12	On site	447292 326133	A42 CASTLE DONINGTON 748	5.0	N	<u>218210</u> 7
13	On site	447270 326080	M1 EXTENSIONS BH307 KEGWORTH	9.14	N	218145 🗷
14	On site	447300 327850	M1 JUNCTION 24 SCHEME 164 WS19	-	Υ	N/A
15	On site	447490 327320	M1 JUNCTION 24 SCHEME 164 WS27	-	Υ	N/A
16	On site	447560 327880	M1 JUNCTION 24 SCHEME 164 WS32	-	Υ	N/A
17	On site	447340 327720	M1 JUNCTION 24 SCHEME 164 TP4	-	Υ	N/A
18	On site	447430 327640	M1 JUNCTION 24 SCHEME 164 WS12	-	Υ	N/A
19	On site	447620 327660	M1 JUNCTION 24 SCHEME 164 TP8	-	Υ	N/A
20	On site	447630 327690	M1 JUNCTION 24 SCHEME 164	-	Υ	N/A
21	On site	447410 327510	M1 JUNCTION 24 SCHEME 164 WS10	-	Υ	N/A
22	On site	447660 327650	M1 JUNCTION 24 SCHEME 164 WS15	-	Υ	N/A
23	On site	447640 327530	M1 JUNCTION 24 SCHEME 164 WS16	-	Υ	N/A
24	On site	447820 327790	A453 WIDENING MI JUNCTION 24-A52 NOTTINGHAM WS01-06	1.6	N	18189587 7
25	On site	447337 327319	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 CP1085	11.17	N	18913750 7
26	On site	447240 326105	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 RC1079	15.5	N	18913771 7
27	On site	447556 327905	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D120L	3.2	N	<u>19511278</u> ↗
28	On site	447358 326274	M1 J23a to J25 Ground Investigation CPT01	6.45	N	<u>21246666</u>
Α	On site	447530 327315	A42 CASTLE DONINGTON BH751	7.0	N	218213 7





ID	Location	Grid reference	Name	Length	Confidential	Web link
Α	On site	447530 327300	M1 EXTENSIONS BH311 KEGWORTH	6.09	N	218149 7
В	On site	447773 327733	A453 CLIFTON TO M1 4	12.6	N	218319 7
В	On site	447738 327733	A453 CLIFTON TO M1 2	16.4	N	218317
В	On site	447756 327746	A453 CLIFTON TO M1 108	14.0	N	218375 🗷
С	On site	447349 326201	A42 CASTLE DONINGTON BH737R	8.0	N	<u>218206</u> 🗷
D	On site	447500 327380	M1 JUNCTION 24 SCHEME 164 WS29	-	Υ	N/A
D	On site	447490 327400	M1 JUNCTION 24 SCHEME 164 WS28	-	Υ	N/A
D	On site	447490 327380	M1 JUNCTION 24 SCHEME 164 PIT 01	-	Υ	N/A
E	On site	447400 327560	M1 JUNCTION 24 SCHEME 164 TP1A	-	Υ	N/A
E	On site	447430 327570	M1 JUNCTION 24 SCHEME 164 WS11	-	Υ	N/A
E	On site	447400 327580	M1 JUNCTION 24 SCHEME 164 WS2	-	Υ	N/A
E	On site	447400 327580	M1 JUNCTION 24 SCHEME 164 TP2	-	Υ	N/A
E	On site	447400 327550	M1 JUNCTION 24 SCHEME 164 WS1	-	Υ	N/A
E	On site	447410 327570	M1 JUNCTION 24 SCHEME 164	-	Υ	N/A
E	On site	447400 327550	M1 JUNCTION 24 SCHEME 164 TP1B	-	Υ	N/A
F	On site	447330 327380	M1 JUNCTION 24 SCHEME 164 WS20	-	Υ	N/A
G	On site	447580 327500	M1 JUNCTION 24 SCHEME 164 WS17	-	Υ	N/A
G	On site	447580 327480	M1 JUNCTION 24 SCHEME 164 WS18	-	Υ	N/A
Н	On site	447590 327700	M1 JUNCTION 24 SCHEME 164 WS7	-	Υ	N/A
Н	On site	447580 327710	M1 JUNCTION 24 SCHEME 164 TP7	-	Υ	N/A
Н	On site	447590 327700	M1 JUNCTION 24 SCHEME 164 WS6	-	Υ	N/A
ı	On site	447320 327580	M1 JUNCTION 24 SCHEME 164 TP11	-	Υ	N/A
ı	On site	447320 327580	M1 JUNCTION 24 SCHEME 164 WS5	-	Υ	N/A
J	On site	447570 327830	M1 JUNCTION 24 SCHEME 164 WS30	-	Υ	N/A
K	On site	447480 327720	M1 JUNCTION 24 SCHEME 164 WS13	-	Υ	N/A
L	On site	447800 327760	M1 JUNCTION 24 SCHEME 164 WS33	-	Υ	N/A
M	On site	447720 327710	M1 JUNCTION 24 SCHEME 164 WS26	-	Υ	N/A
M	On site	447720 327710	M1 JUNCTION 24 SCHEME 164 SERVICE PIT TP12	-	Υ	N/A





ID	Location	Grid reference	Name	Length	Confidential	Web link
N	On site	447870 327820	M1 JUNCTION 24 SCHEME 164 WS25	-	Υ	N/A
0	On site	447400 327660	M1 JUNCTION 24 SCHEME 164 WS3	-	Υ	N/A
0	On site	447390 327680	M1 JUNCTION 24 SCHEME 164 TP3	-	Υ	N/A
Р	On site	447340 328370	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP3/WS3	3.5	N	<u>18127251</u> 7
29	On site	447340 327750	M1 JUNCTION 24 SCHEME 164 WS4	-	Υ	N/A
30	On site	447280 327705	A564 DERBY S BYPASS/SPUR BH137	30.0	N	<u>218278</u> ⊅
Q	On site	447320 328540	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP1A	1.2	N	<u>18127234</u>
L	1m NE	447780 327767	A453 CLIFTON TO M1 TP1	1.0	N	218301 🗷
31	2m N	447510 327740	M1 EXTENSIONS BH313 KEGWORTH	12.19	N	218151 7
Q	2m N	447320 328550	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP1/WS1	3.6	N	<u>18127227</u> <i></i> 7
J	3m N	447560 327840	M1 JUNCTION 24 SCHEME 164 WS31	-	Υ	N/A
K	3m N	447480 327740	M1 JUNCTION 24 SCHEME 164 WS14	-	Υ	N/A
F	3m N	447310 327390	M1 JUNCTION 24 SCHEME 164 WS21	-	Υ	N/A
M	3m NE	447720 327690	A648 CLIFTON TO M1 BH1 LOCKINGTON	10.06	N	218160 7
Ν	3m NE	447874 327824	A453 CLIFTON TO M1 5	15.0	N	218320 7
32	4m S	447243 325878	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 CP1078	3.02	N	18913749 7
33	4m N	447582 327754	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 CP1086	12.94	N	18913751 7
Р	5m N	447350 328370	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP8	1.2	N	<u>18127722</u> <i> </i>
R	5m N	447320 328330	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP4/WS4	3.8	N	<u>18127253</u> <i> </i>
R	6m N	447320 328320	SCHEME 758 A50 ABNORMAL LOADS LAYBYS OT01	1.2	N	<u>18127864</u>
S	6m N	447290 328540	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP6	5.0	N	18127259 7
S	6m N	447290 328540	SCHEME 758 A50 ABNORMAL LOADS LAYBYS OT04	1.2	N	<u>18127866</u> <i> </i>





ID	Location	Crid reference	Nama	Longth	Confidential	Mob link
ID	Location	Grid reference	Name	Length	Confidential	Web link
В	7m NE	447786 327728	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS01-07	-	Υ	N/A
Т	7m N	447300 328480	SCHEME 758 A50 ABNORMAL LOADS LAYBYS OT03	1.2	N	18127865 7
U	7m N	447310 328400	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP5/WS5	5.0	N	18127257 7
34	8m N	447340 328460	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP2/WS2	2.9	N	<u>18127235</u>
35	8m N	447360 327190	M1 JUNCTION 24 SCHEME 164 WS23	-	Υ	N/A
U	10m N	447310 328380	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP9	1.25	N	18127724 7
36	11m N	447351 328129	A564 DERBY S BYPASS/SPUR TP231	3.0	N	218288 7
С	11m S	447322 326116	A42 CASTLE DONINGTON BH731	8.0	N	218200 7
С	11m S	447331 326144	A42 CASTLE DONINGTON BH733	8.0	N	218202 7
С	11m S	447340 326173	A42 CASTLE DONINGTON BH735R	8.0	N	218204 7
С	12m S	447314 326087	A42 CASTLE DONINGTON BH729R	8.0	N	218198 7
37	12m N	447340 328490	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP7	1.2	N	18127721 7
38	13m N	447506 328279	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS15-07	-	Υ	N/A
39	13m N	447306 327458	A564 DERBY S BYPASS/SPUR BH142	17.65	N	218281 7
40	14m S	447155 325573	A42 CASTLE DONINGTON 747	7.0	N	218209 7
С	14m S	447362 326181	A42 CASTLE DONINGTON BH736	14.0	N	218205 7
41	14m S	447380 326760	A42 CASTLE DONINGTON BH280	6.0	N	218252 7
42	15m S	447129 326038	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1080	1.2	N	18913778 7
43	15m N	447247 327868	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1089	4.0	N	18913784 7
44	16m SE	447525 326851	A42 CASTLE DONINGTON BH750	7.0	N	218212 7
45	16m N	447558 328033	A42 CASTLE DONINGTON BH752	7.05	N	218214 7
46	17m N	447312 327881	A564 DERBY S BYPASS/SPUR TP232	3.0	N	218289 7
47	17m N	447531 327899	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D1B	3.0	N	<u>19513368</u>





ID	Location	Grid reference	Name	Length	Confidential	Web link
Т	17m N	447290 328480	SCHEME 758 A50 ABNORMAL LOADS LAYBYS TP10	1.2	N	18127725 71
48	20m NE	447774 327705	A453 CLIFTON TO M1 3	10.0	N	218318 7
49	22m S	447203 326311	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1082	2.4	N	<u>18913780</u> <i></i> ✓
50	23m NE	447786 327797	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS13-07	-	Υ	N/A
С	26m S	447349 326154	A42 CASTLE DONINGTON BH734	14.0	N	218203 7
С	26m S	447341 326126	A42 CASTLE DONINGTON BH732/R	14.14	N	218201 7
С	27m S	447333 326097	A42 CASTLE DONINGTON BH730	14.0	N	218199 7
51	27m S	447094 325709	A42 CASTLE DONNINGTON TP 826	2.0	N	218295 🗷
52	29m NE	447699 327645	A453 CLIFTON TO M1 1	10.0	N	218316 7
53	32m S	447046 325552	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1076	1.9	N	<u>18913776</u>
V	44m S	447100 325390	A42 CASTLE DONINGTON BH289	25.0	N	218242 7
54	46m N	447387 328402	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D2A	1.7	N	<u>19513369</u> <i> </i>
V	48m S	447080 325390	A42 CASTLE DONINGTON BH286	20.0	N	218239 7
55	48m NE	447927 327793	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS05-07	-	Υ	N/A
56	49m N	447490 327950	M1 EXTENSIONS BH314 KEGWORTH	9.14	N	218152 7
57	50m N	447226 327722	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 CP1088	14.54	N	<u>18913752</u>
58	52m N	447258 327586	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1083	4.0	N	18913781 7
V	54m S	447060 325390	A42 CASTLE DONINGTON BH284	20.0	N	218237 7
59	55m N	447493 327893	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D1A	3.1	N	<u>19513367</u>
V	61m S	447040 325390	A42 CASTLE DONINGTON BH282	20.0	N	218235 7
V	64m S	447090 325370	A42 CASTLE DONINGTON BH287	15.0	N	218241 7
60	66m SW	447369 326976	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1084	3.0	N	18913782 7
V	67m S	447080 325370	A42 CASTLE DONINGTON BH287	20.0	N	218240 7



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ID	Location	Grid reference	Name	Length	Confidential	Web link
W	67m N	447223 328641	A564 DERBY S BYPASS/SPUR BH136	8.0	N	218277
V	70m S	447040 325380	A42 CASTLE DONINGTON BH283	20.0	N	218236 🗷
V	73m S	447060 325370	A42 CASTLE DONINGTON BH285	7.0	N	218238 🗷
V	74m S	447030 325380	A42 CASTLE DONINGTON BH281	20.0	N	218234 🗷
61	74m N	447430 328260	M1 EXTENSIONS BH315 LOCKINGTON	9.14	N	218153 🗷
62	74m S	447161 325392	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 RC1283	15.0	N	<u>18913773</u> ∕7
63	75m S	447194 325490	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1077	2.4	N	<u>18913777</u> <i> </i>
64	78m S	447044 325719	A42 CASTLE DONNINGTON TP 825	2.0	N	218294 7
Χ	78m NE	447730 327510	M1 JUNCTION 24 SCHEME 164	-	Υ	N/A
65	80m N	447526 328692	A564 DERBY SOUTH'BYPASS BH5664	10.0	N	218534 🗷
66	82m NE	447930 327880	A453 WIDENING MI JUNCTION 24-A52 NOTTINGHAM WS01A-06	1.3	N	18189586 7
67	84m S	447000 325580	A42 CASTLE DONINGTON BH278	5.0	N	218243 🗷
Υ	85m N	447425 328411	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D2B	3.0	N	<u>19513370</u>
W	85m N	447203 328642	A564 DERBY S BYPASS/SPUR TP230	2.0	N	218287 🗷
Χ	86m NE	447730 327490	M1 JUNCTION 24 SCHEME 164 TP9	-	Υ	N/A
68	89m N	447460 327885	NOTTINGHAMSHIRE/DERBYSHIRE COA NMCS2 UPGRADE D119K	2.0	N	<u>19511277</u>
Υ	89m N	447432 328391	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 CP1090	11.39	N	18913753 7
69	92m NW	447265 327196	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1081	3.4	N	18913779 7
70	93m NE	447960 327862	A453 CLIFTON TO M1 6	6.0	N	218321 7
71	93m S	447190 325410	A42 CASTLE DONINGTON BH290	16.0	N	218244 7
72	101m N	447433 328508	A42 CASTLE DONINGTON BH757	3.0	N	218215 7
73	104m N	447272 328710	A564 DERBY SOUTH'BYPASS TP5633	4.0	N	218559 7
Z	105m S	446944 325439	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 RC1075	17.2	N	18913770 ¬
Z	108m S	446940 325450	A42 CASTLE DONINGTON BH277	5.0	N	218233 7





ID	Location	Grid reference	Name	Length	Confidential	Web link
AA	113m NE	447760 327490	M1 JUNCTION 24 SCHEME 164 WS9	-	Υ	N/A
AA	117m NE	447760 327480	M1 JUNCTION 24 SCHEME 164 WS8	_	Y	N/A
AB	126m NE	447980 327890	A453 WIDENING MI JUNCTION 24-A52 NOTTINGHAM 01A-06	12.0	N	18189548 7
74	126m N	447352 328725	A564 DERBY SOUTH'BYPASS TP5674	2.0	N	218566 7
75	128m N	447380 328710	M1 EXTENSION BH316 LOCKINGTON	6.4	N	218159 7
76	132m NE	447970 327713	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS02-07	-	Υ	N/A
77	133m S	447210 325360	A42 CASTLE DONINGTON BH291S	16.0	N	218245 7
78	137m N	447421 328675	A564 DERBY SOUTH'BYPASS TP5665	3.0	N	218564 7
AA	139m NE	447780 327470	M1 JUNCTION 24 SCHEME 164 WS24	-	Υ	N/A
AB	148m NE	448000 327900	A648 CLIFTON TO M1 BH3 LOCKINGTON	5.18	N	218161 7
79	150m N	447533 328768	A564 DERBY SOUTH'BYPASS TP5663	3.0	N	218563 7
80	150m N	447340 328755	A564 DERBY SOUTH'BYPASS BH5666	10.0	N	218535 7
81	151m N	447133 327673	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1087	3.5	N	18913783 7
82	153m S	447031 325296	A42 CASTLE DONINGTON BH728R	20.0	N	218197 7
AC	163m NE	447817 327501	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS03-07	-	Υ	N/A
83	165m S	447270 325430	A42 CASTLE DONINGTON TP445	3.0	N	218247 🗷
AC	170m NE	447825 327502	SOAR VALLEY SAND AND GRAVEL	7.5	N	218262 7
84	173m S	447270 325400	A42 CASTLE DONINGTON TP444	3.0	N	218246 🗷
85	175m S	447127 325261	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 RC1074	15.0	N	18913769 ¬
86	182m S	447270 325370	A42 CASTLE DONINGTON TP446	4.0	N	218248 7
87	200m S	446890 325330	A42 CASTLE DONINGTON BH275	5.0	N	218221 7
88	207m NE	447830 327420	M1 JUNCTION 24 SCHEME 164 TP12	-	Υ	N/A
89	210m N	447513 328825	A564 DERBY SOUTH'BYPASS BH5662	10.0	N	218533 7
90	211m N	447748 328282	A453 WIDENING M1 JUNCTION 24 TO A52 NOTTINGHAM WS14-07	-	Υ	N/A
91	213m S	446980 325250	A42 CASTLE DONINGTON BH274	20.0	N	<u>218231</u> ∕



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ID	Location	Grid reference	Name	Length	Confidential	Web link
92	221m S	447320 325400	A42 CASTLE DONINGTON TP447	3.0	N	218249 7
AD	225m S	447000 325230	A42 CASTLE DONINGTON BH272	25.0	N	218229 7
93	231m N	447101 328752	A564 DERBY S BYPASS/SPUR TP229	2.0	N	218286 7
94	232m S	447340 325430	A42 CASTLE DONINGTON TP448	3.0	N	218250 7
95	235m S	447064 325201	A42 CASTLE DONINGTON BH727	15.0	N	218196 7
AD	238m S	447006 325214	A42 CASTLE DONINGTON 744	7.0	N	218207 7
96	239m S	446810 325440	A42 CASTLE DONINGTON BH276	5.0	N	218232 7
97	239m S	447327 325361	M1 WIDENING JUNCTION 21-30 PRELIMINARY GI CONTRACT 2 TP1278	2.6	N	<u>18913787</u> <i> </i>
98	244m S	447030 325200	A42 CASTLE DONINGTON BH268	10.0	N	218225 🗷
AD	244m S	447000 325210	A42 CASTLE DONINGTON BH270	10.0	N	218227 7
AD	244m S	446970 325220	A42 CASTLE DONINGTON BH273	20.0	N	218230 7
AD	247m S	446990 325210	A42 CASTLE DONINGTON BH271	20.0	N	218228 7





17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m 3

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 127 >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.



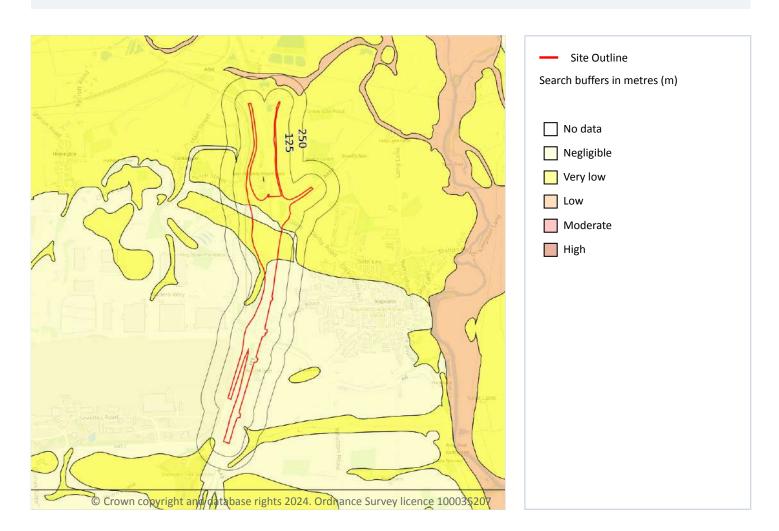








Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m 2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on page 129 >

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.



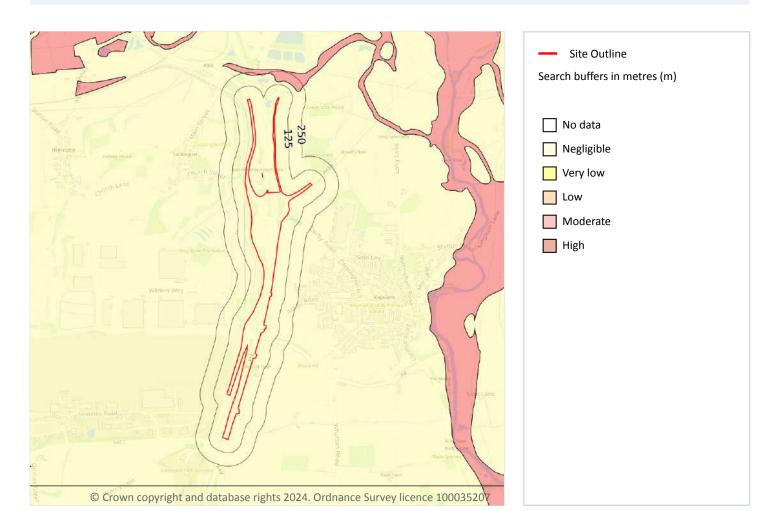


Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.





Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m 1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

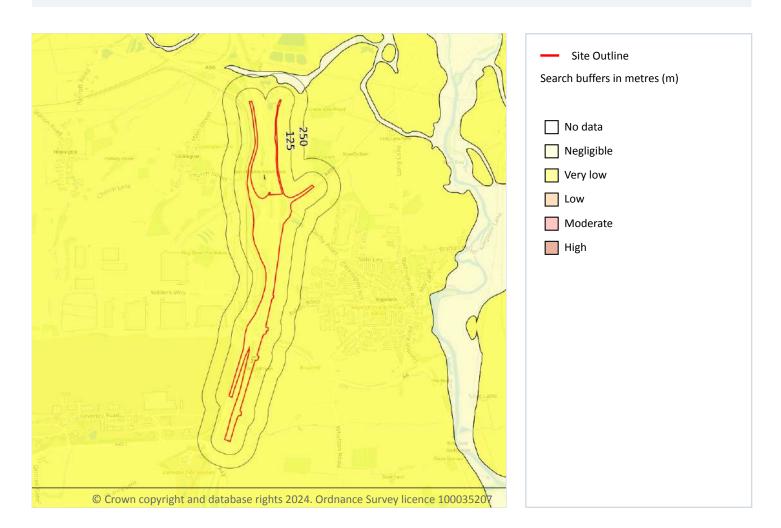
Features are displayed on the Natural ground subsidence - Compressible deposits map on page 131 >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.





Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m 1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

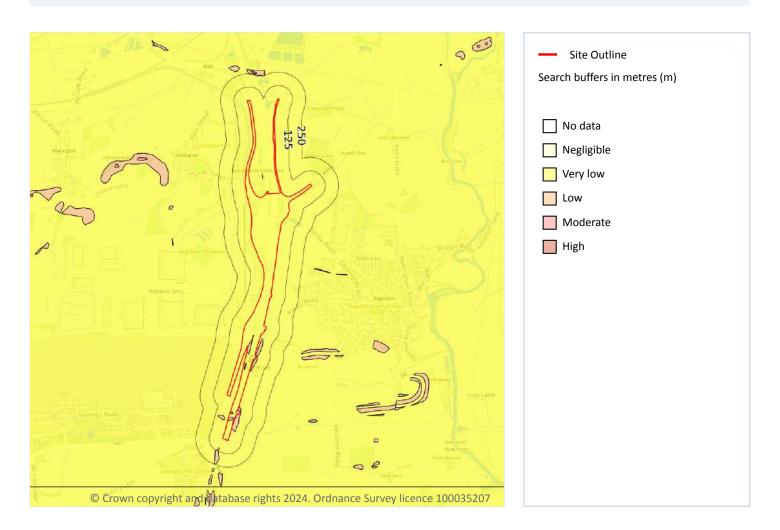
Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 132 >

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.





Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m 3

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on page 133 >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.



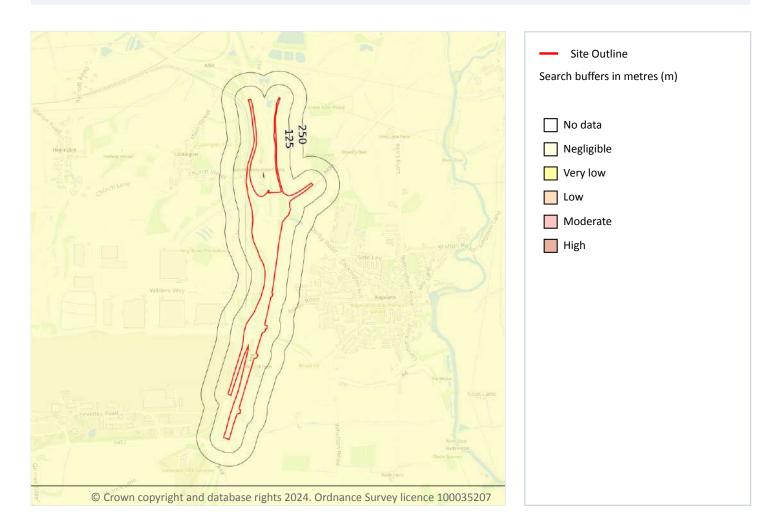


Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
28m S	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.





Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m 1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on page >

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.





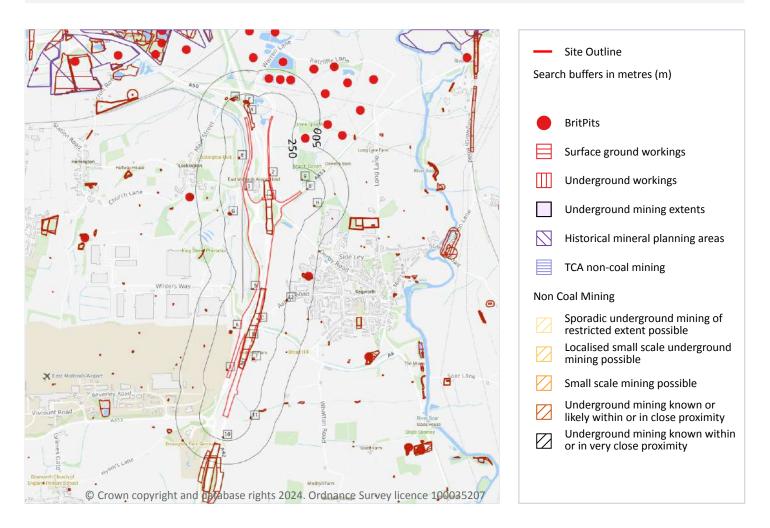
This data is sourced from the British Geological Survey.



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18 Mining and ground workings



18.1 BritPits

Records within 500m 5

info@groundsure.com ↗

01273 257 755

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on page 137 >





ID	Location	Details	Description
22	391m N	Name: Lockington Quarry Address: Lockington, KEGWORTH, Leicestershire Commodity: Sand & Gravel Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
23	400m N	Name: Lockington Quarry Address: Lockington, KEGWORTH, Leicestershire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
24	402m N	Name: Lockington Quarry Address: Lockington, KEGWORTH, Leicestershire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
26	431m N	Name: Lockington Quarry Address: Lockington, KEGWORTH, Leicestershire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
K	437m E	Name: Kegworth Address: KEGWORTH, Leicestershire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m 48

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on page 137 >





ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Pond	1922	1:10560
2	On site	Pond	1922	1:10560
Α	On site	Cuttings	1971	1:10000
Α	On site	Cuttings	1982	1:10000
Α	On site	Cuttings	1992	1:10000
В	On site	Cuttings	1971	1:10000
В	On site	Cuttings	1982	1:10000
В	On site	Cuttings	1992	1:10000
С	On site	Pond	1922	1:10560
С	On site	Pond	1922	1:10560
С	On site	Pond	1901	1:10560
3	13m S	Pond	1922	1:10560
4	22m N	Ponds	1955	1:10560
5	29m S	Pond	1922	1:10560
6	52m S	Pond	1922	1:10560
7	68m S	Pond	1901	1:10560
8	71m NE	Pond	1922	1:10560
D	85m S	Reservoir	1922	1:10560
D	85m S	Covered Reservoir	1901	1:10560
D	85m S	Reservoir	1922	1:10560
D	88m S	Unspecified Heap	1971	1:10000
D	88m S	Unspecified Heap	1982	1:10000
D	88m S	Unspecified Heap	1992	1:10000
D	90m S	Reservoir	1955	1:10560
D	93m S	Covered Reservoir	1901	1:10560
Е	97m N	Pond	1922	1:10560
Е	97m N	Pond	1901	1:10560
9	126m NE	Pond	1922	1:10560





ID	Location	Land Use	Year of mapping	Mapping scale
			., -	
F	151m N	Unspecified Pit	1921	1:10560
F	151m N	Unspecified Pit	1921	1:10560
F	151m N	Unspecified Pit	1938	1:10560
F	151m N	Unspecified Pit	1938	1:10560
F	152m N	Gravel Pit	1883	1:10560
F	154m N	Unspecified Heap	1899	1:10560
F	157m N	Unspecified Pit	1955	1:10560
G	164m NW	Pond	1971	1:10000
G	164m NW	Pond	1982	1:10000
G	170m NW	Pond	1922	1:10560
G	170m NW	Pond	1901	1:10560
Н	189m NE	Pond	1922	1:10560
Н	195m NE	Pond	1922	1:10560
1	212m N	Ponds	1921	1:10560
1	212m N	Ponds	1921	1:10560
I	213m N	Ponds	1899	1:10560
I	215m N	Ponds	1883	1:10560
10	218m S	Pond	1922	1:10560
11	229m S	Pond	1922	1:10560
12	234m SE	Pond	1922	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m 0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.





18.4 Underground mining extents

Records within 500m 0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m 0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m 0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site 0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the





Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m 0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m 0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m 0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site 0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.





18.13 Brine areas

Records on site 0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site 0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site 0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site 0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).





19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m 0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m 0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



Date: 13 December 2024



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m 0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

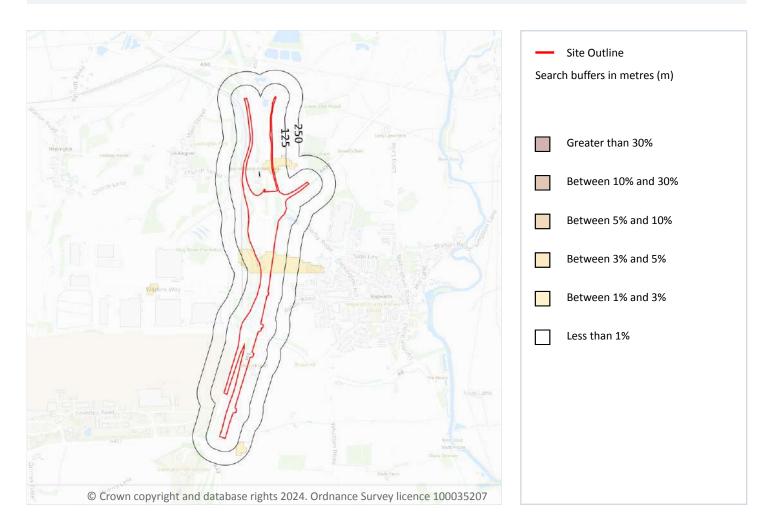
The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.





20 Radon



20.1 Radon

Records on site 2

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on page 146 >

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None





East Midlands Gateway 2, J24 M1 (NH Land)

Ref: GS-BBU-NDC-5SO-FTK **Your ref**: 220500 - 10250 **Grid ref**: 447397 327034

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.





21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m 77

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
2m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
3m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
4m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
5m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
11m NE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
12m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
18m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
21m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
23m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
25m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
25m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
27m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
27m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
28m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
33m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
33m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
34m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
34m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
38m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
44m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
44m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
45m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
48m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
50m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m 0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.





21.3 BGS Measured Urban Soil Chemistry

Records within 50m 0

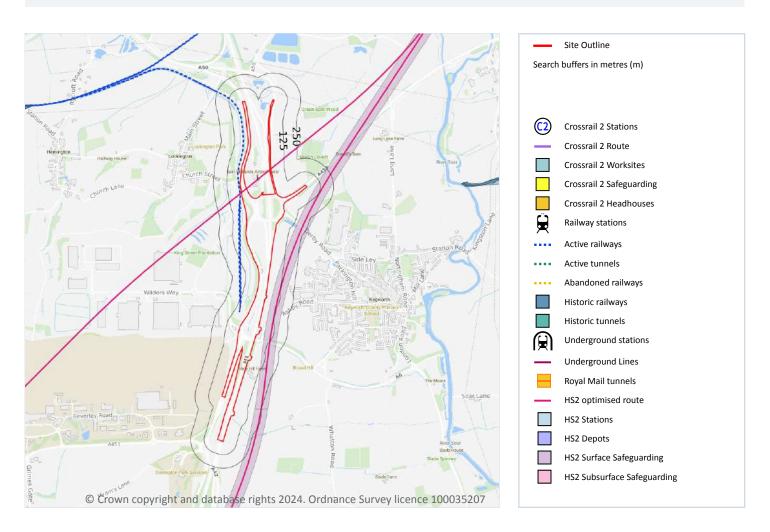
The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.





22 Railway infrastructure and projects



22.1 Underground railways (London)

Records within 250m 0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.





This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m 0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m 0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m 0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

 ${\it This\ data\ is\ sourced\ from\ OpenStreetMap.}$

22.7 Railways

Records within 250m 12

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on page-154 >



Date: 13 December 2024



Location	Name	Туре
12m N	Not given	Single Track
14m N		rail
23m N		rail
24m N		rail
35m N		rail
38m N	Not given	Single Track
38m N	Not given	Single Track
41m N	Not given	Single Track
44m N		rail
50m N		rail
78m S		rail
79m S	Not given	Single Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m 0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m 18

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

Features are displayed on the Railway infrastructure and projects map on page 154 >

Location	Track Type	Speed (mph)	Speed (km/h)	Status
On site	Surface Running Track	249mph	400kph	Section is scheduled for cancellation



Date: 13 December 2024



Location	Track Type	Speed (mph)	Speed (km/h)	Status
On site	Bridge/Viaduct	249mph	400kph	Section is scheduled for cancellation
On site	Bridge/Viaduct	199mph	320kph	Section is scheduled for cancellation
3m N	Surface Running Track	249mph	400kph	Section is scheduled for cancellation
98m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
131m NE	Bridge/Viaduct	171mph	275kph	Section is scheduled for cancellation
131m NE	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
132m SE	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
148m S	Tunnel	171mph	275kph	Section is scheduled for cancellation
149m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
239m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
242m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
315m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
334m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation
339m NW	Surface Running Track	249mph	400kph	Section is scheduled for cancellation
380m NW	Surface Running Track	249mph	400kph	Section is scheduled for cancellation
396m NW	Surface Running Track	249mph	400kph	Section is scheduled for cancellation
419m S	Surface Running Track	171mph	275kph	Section is scheduled for cancellation

This data is sourced from HS2 ltd.





Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

Terms and conditions

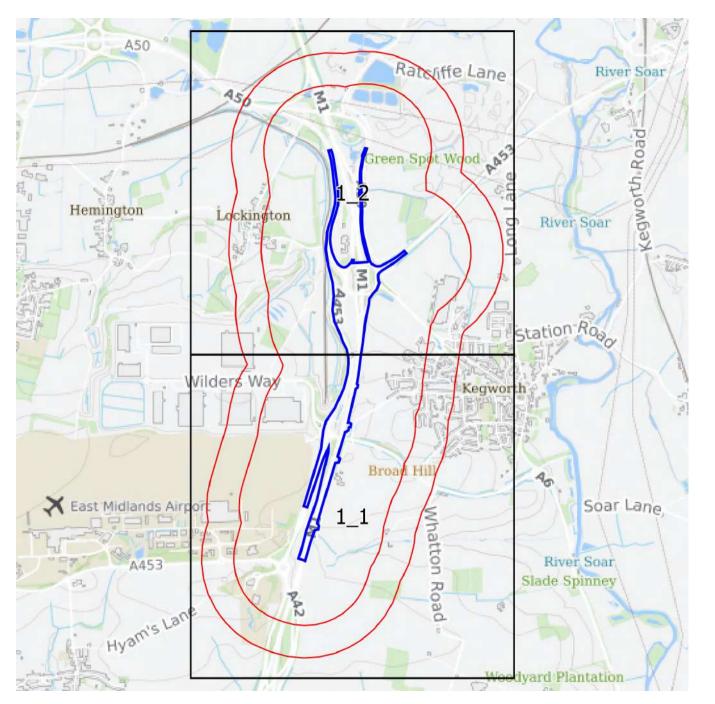
Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/<a> ↗.



East Midlands Gateway Phase 2 Preliminary Sources Study Report affecting National Highways (PSSR) March 2025 EMG2-BWB-XX-XX-T-G-0001_P01



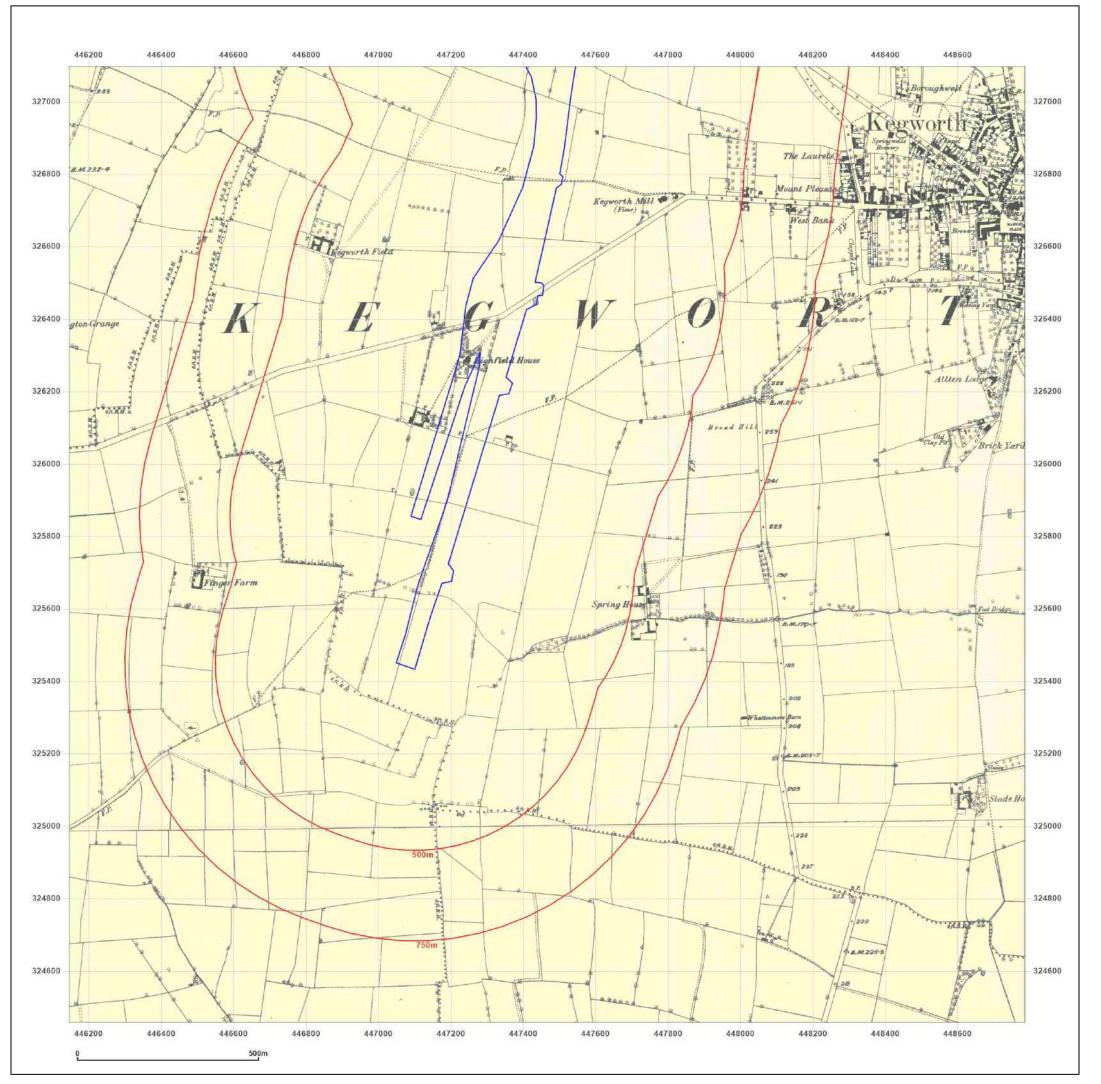
Appendix 2: Historical Mapping



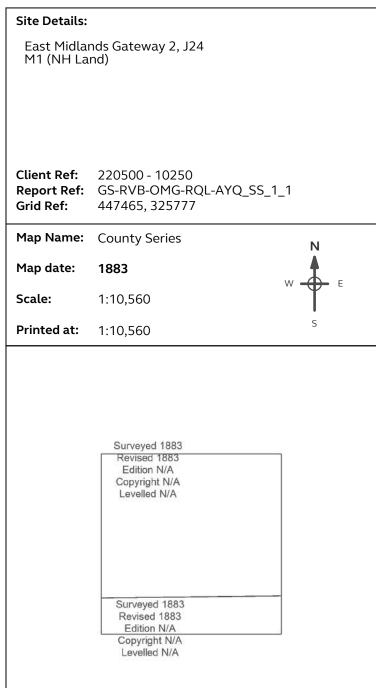


Small Scale Grid Index







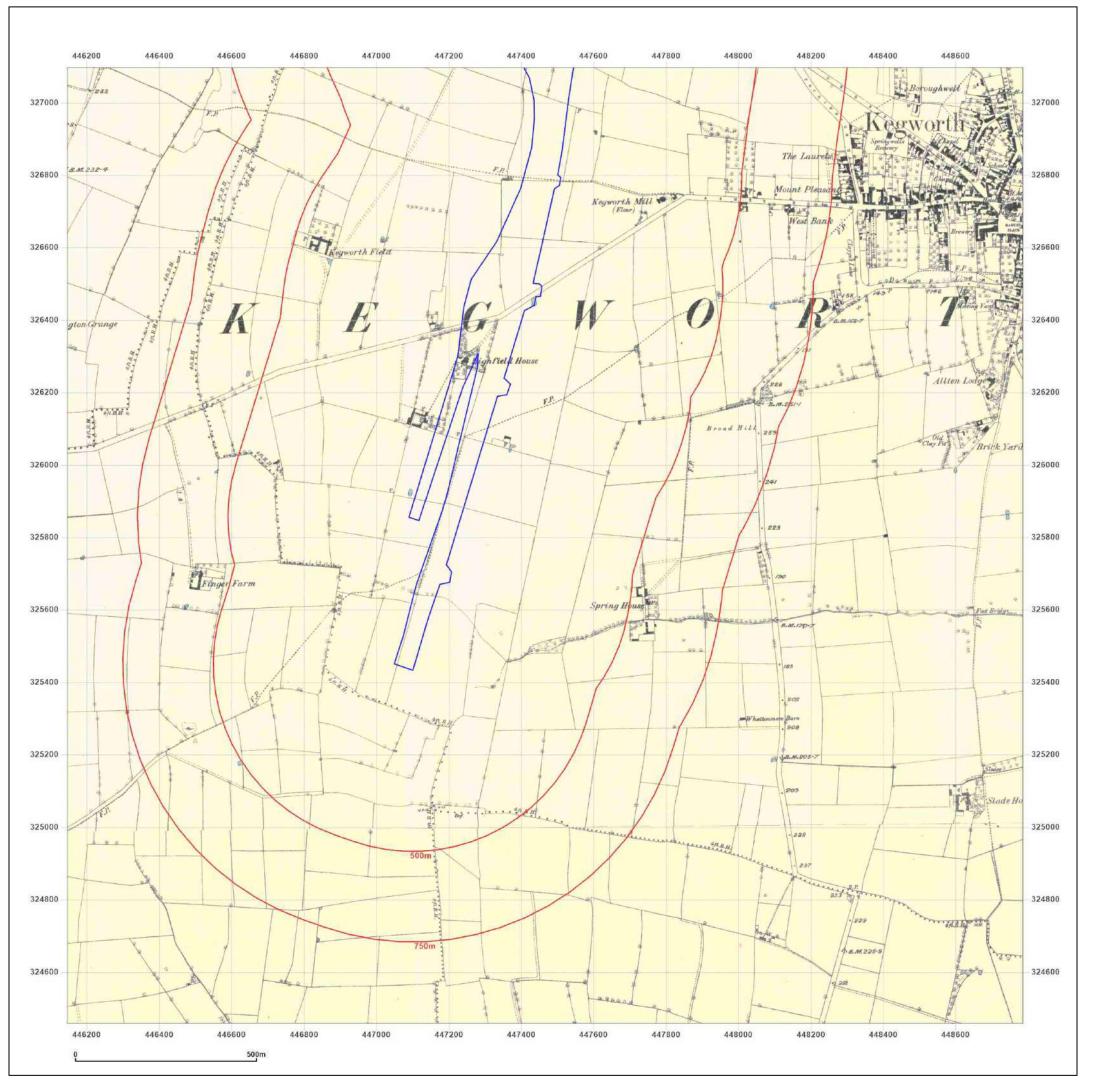




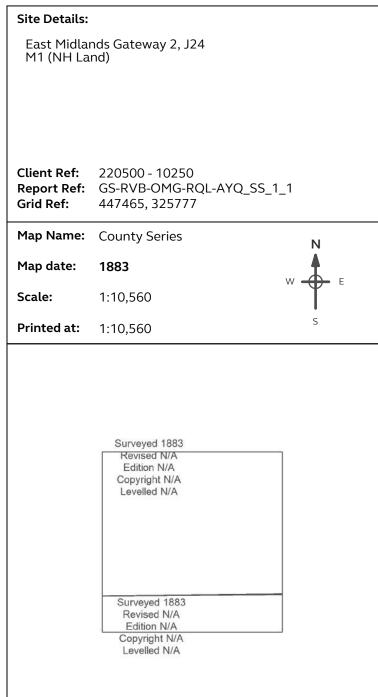
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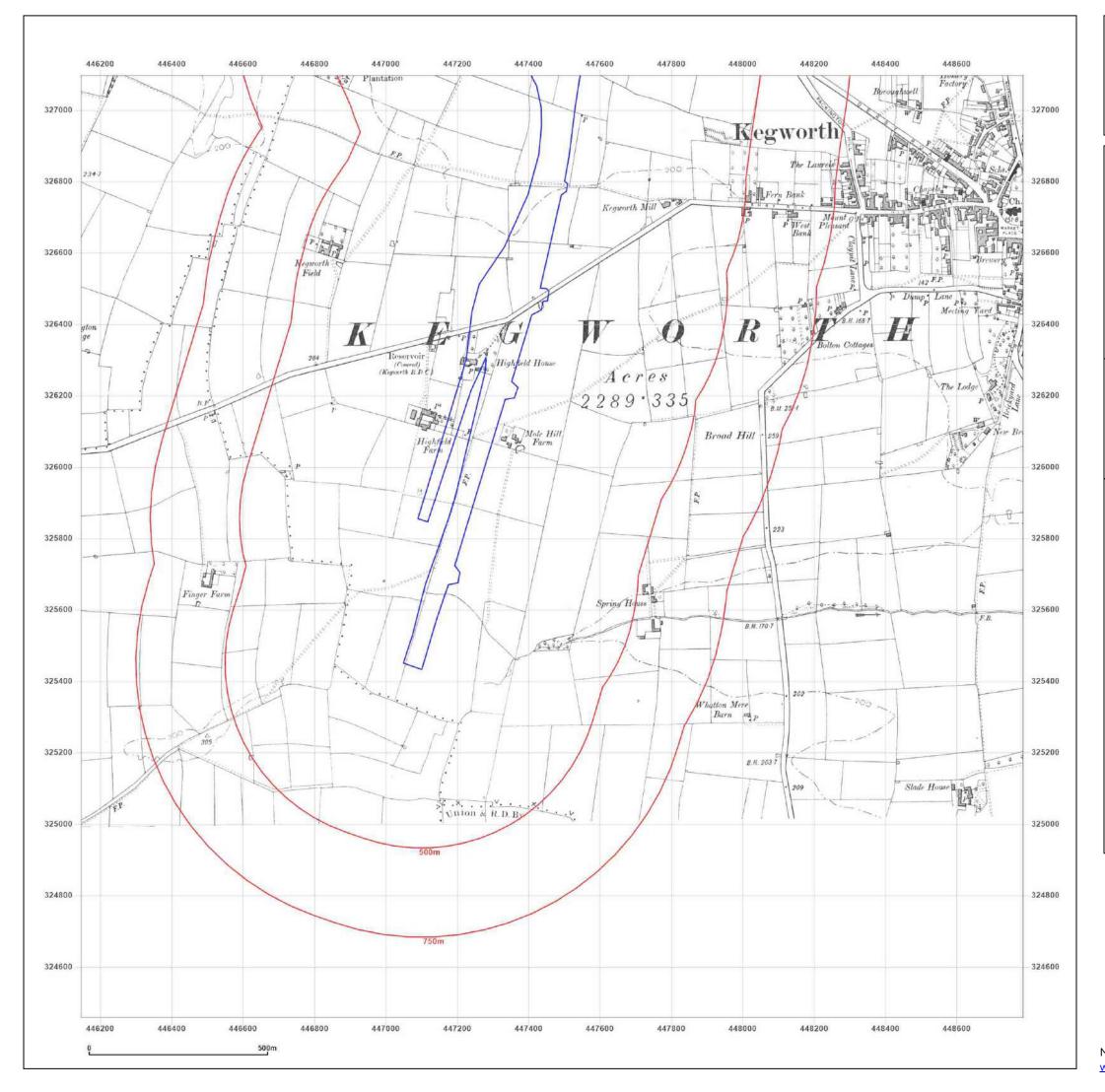




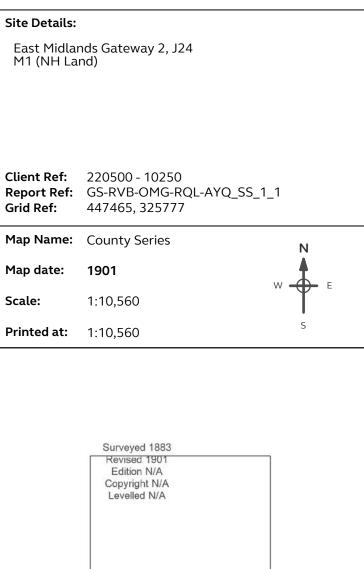
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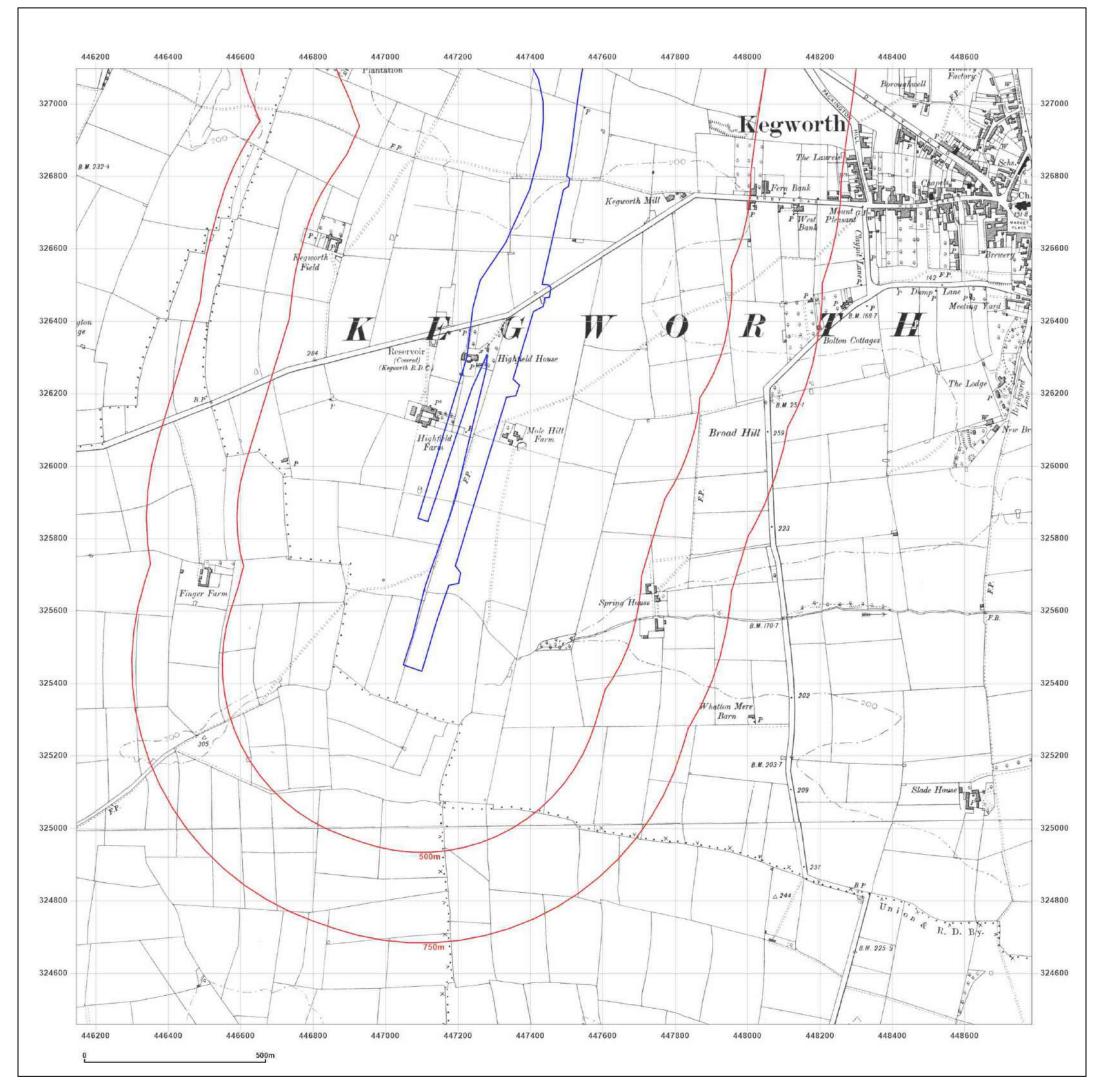




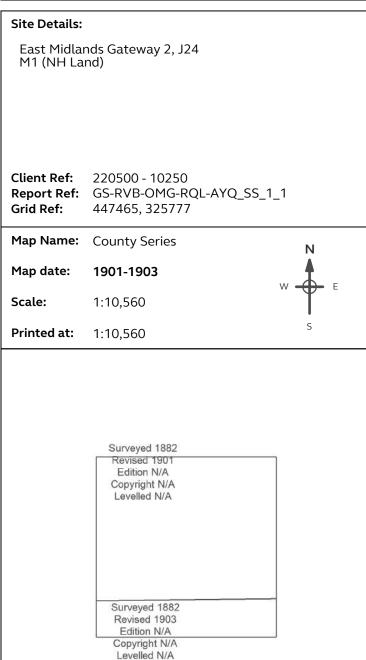
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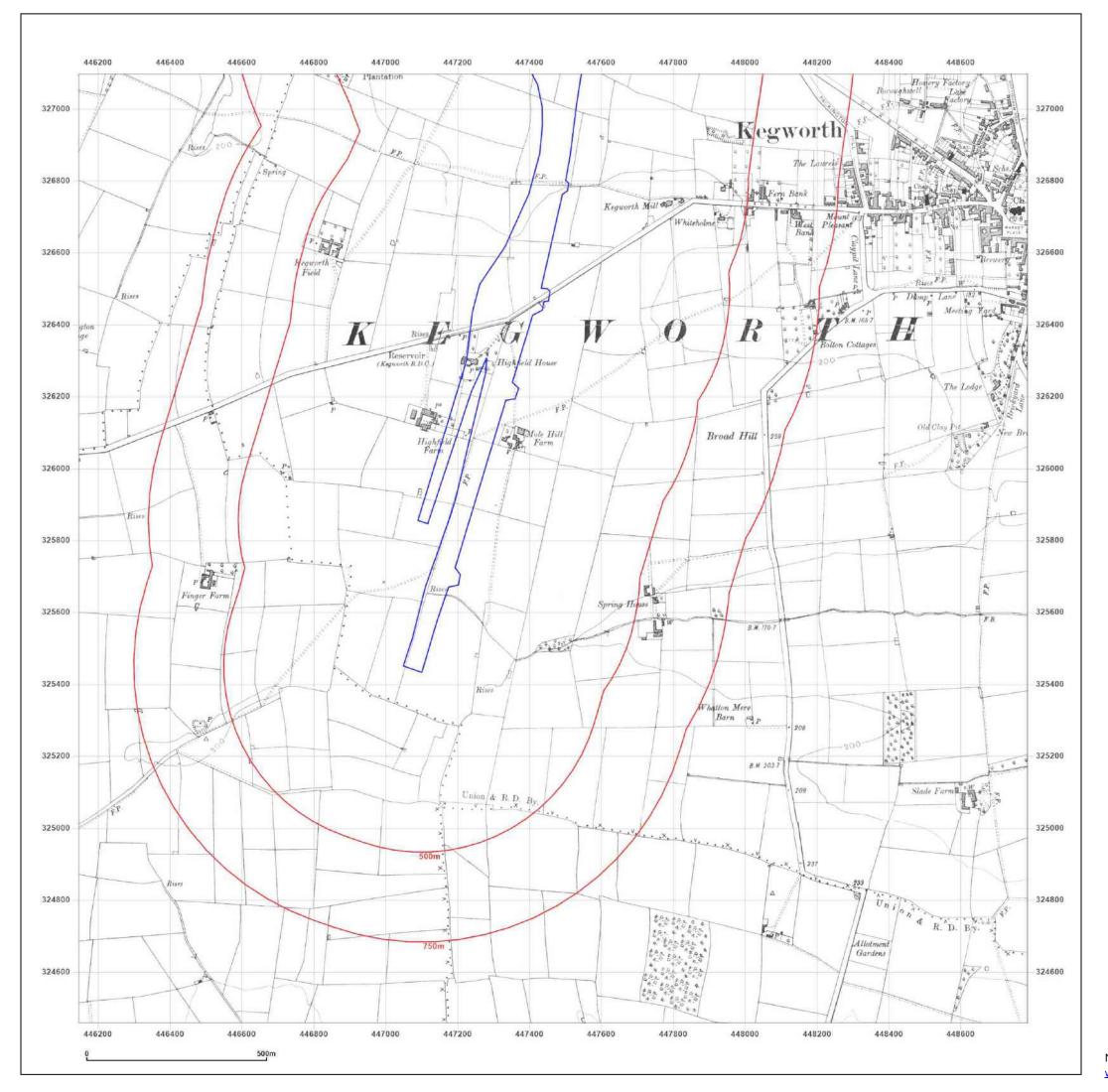




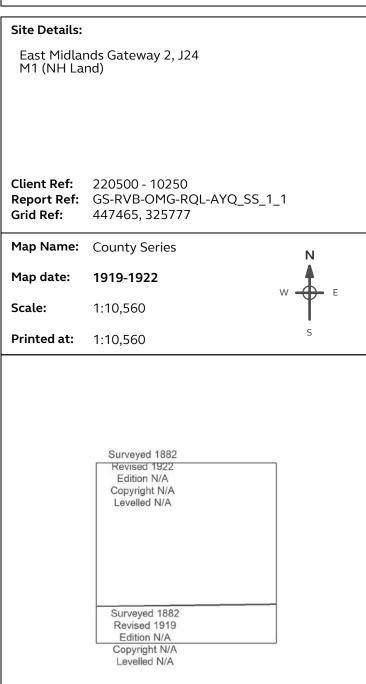
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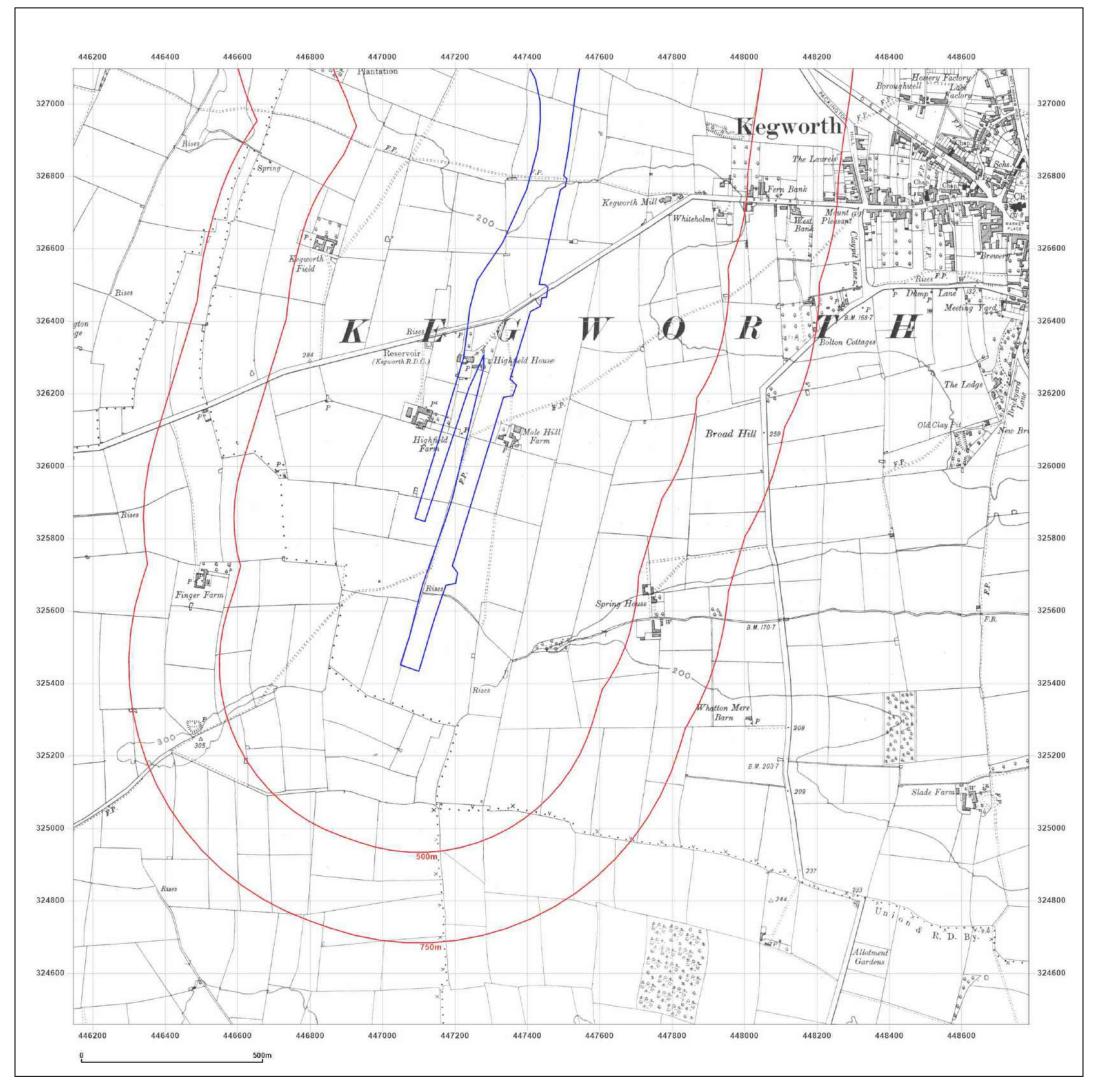




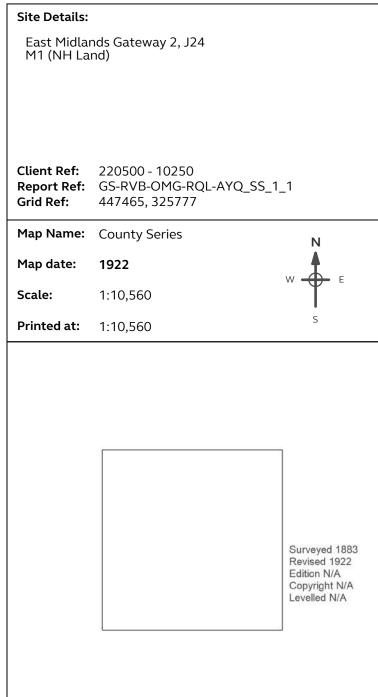
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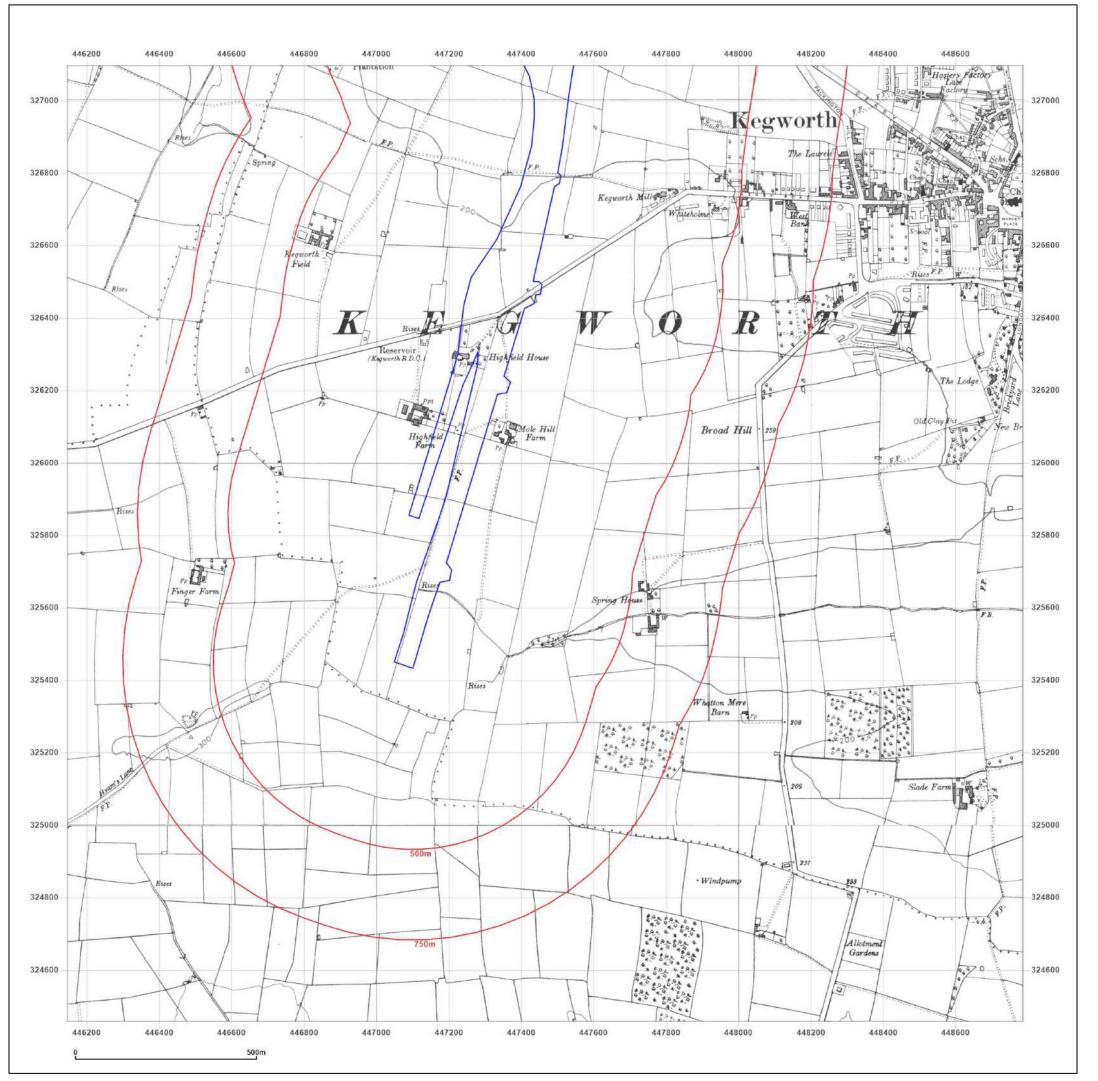




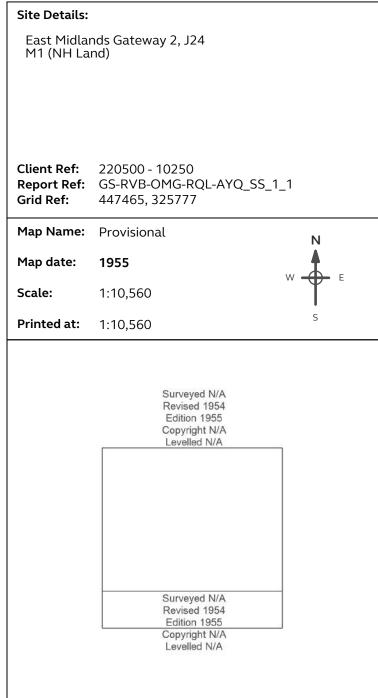
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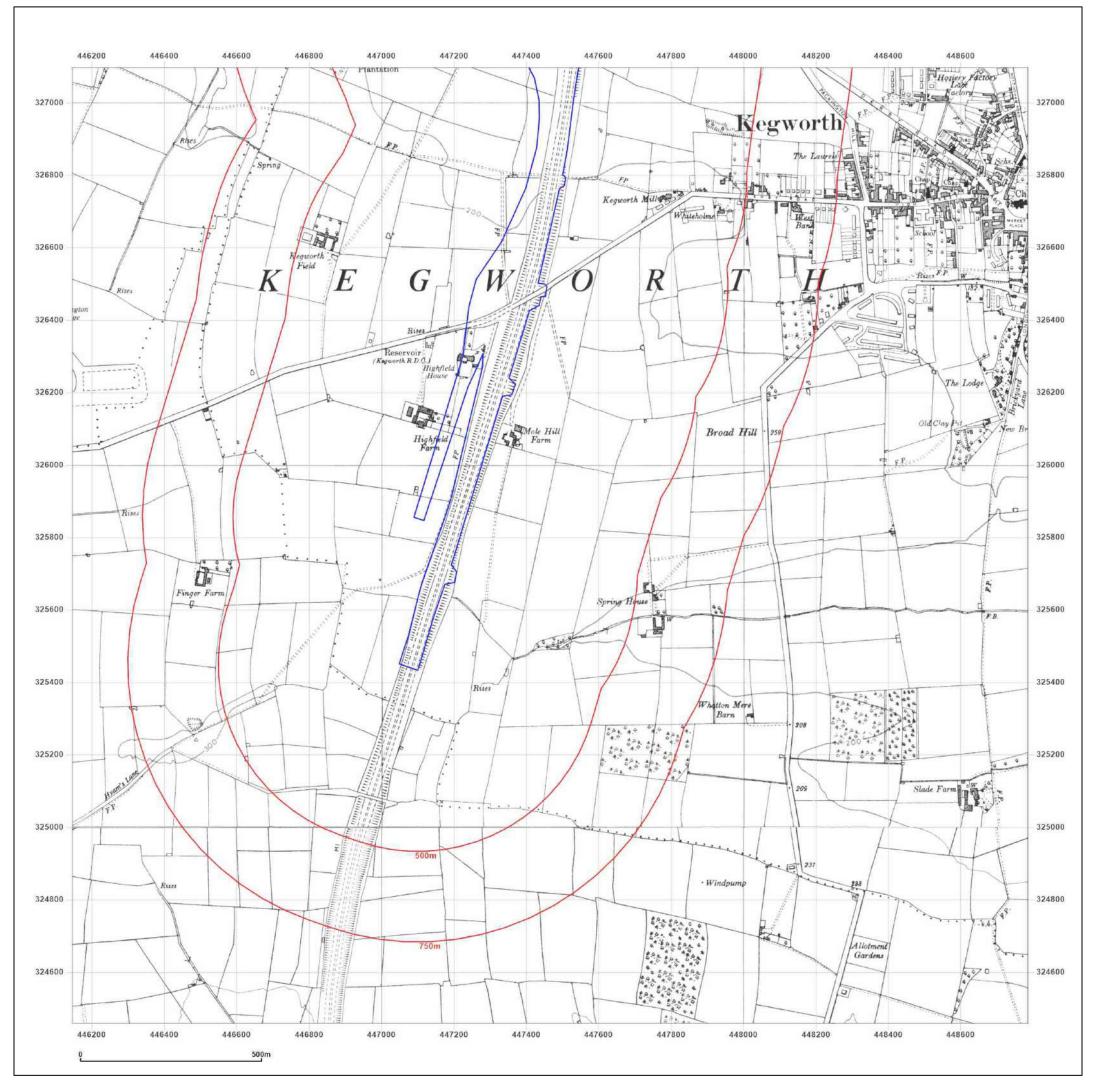




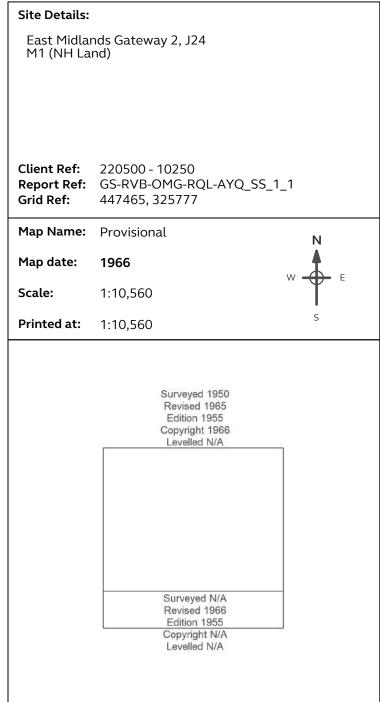
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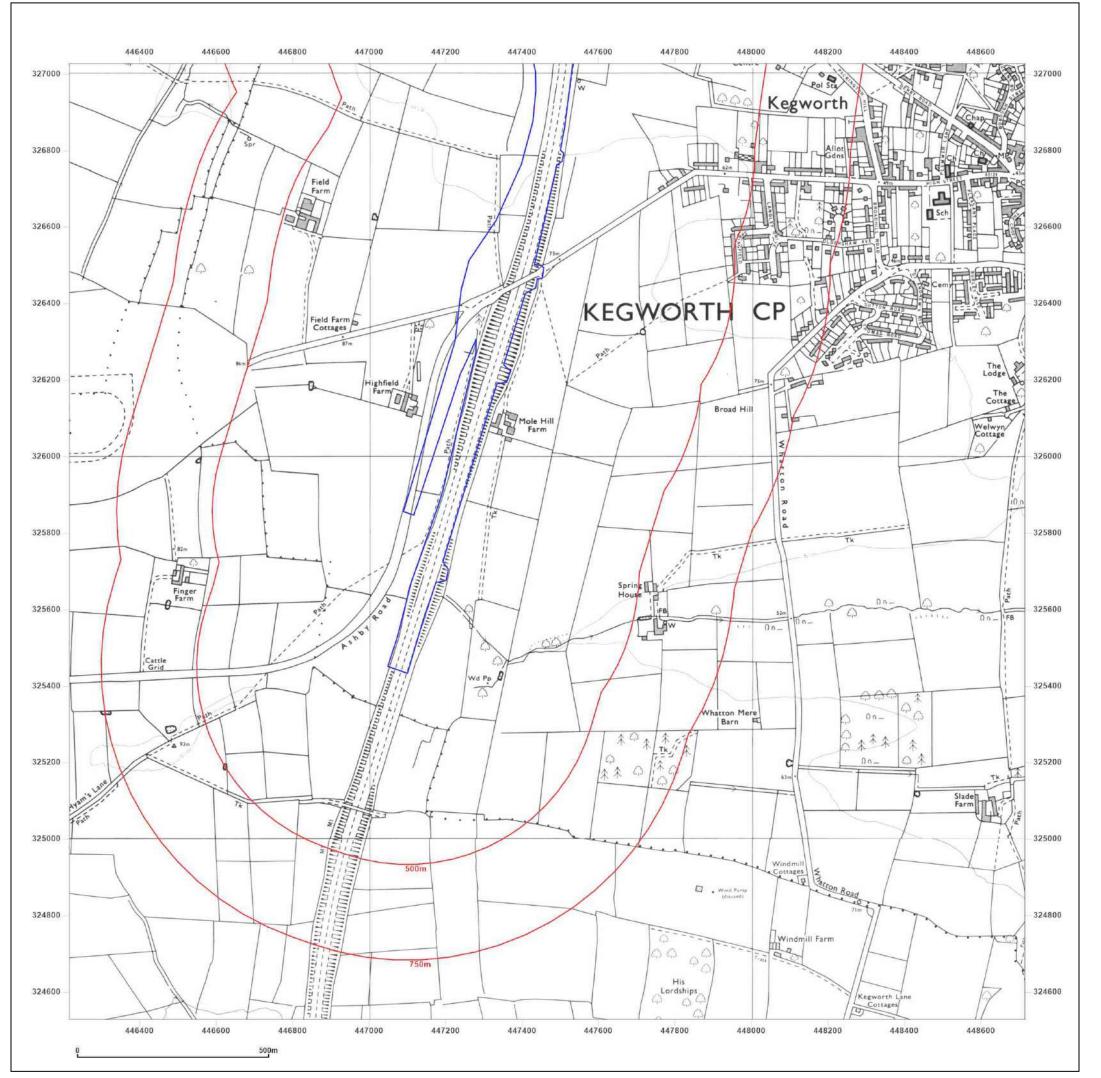




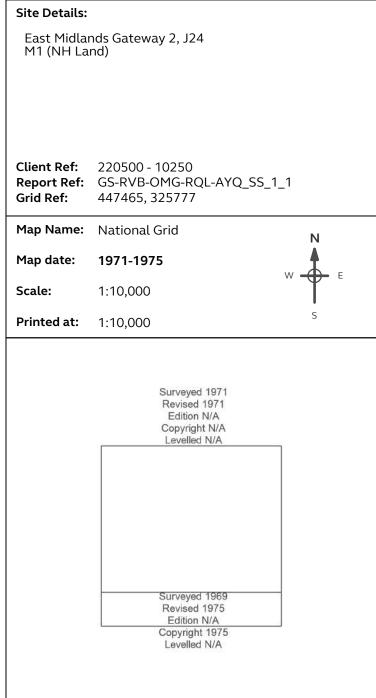
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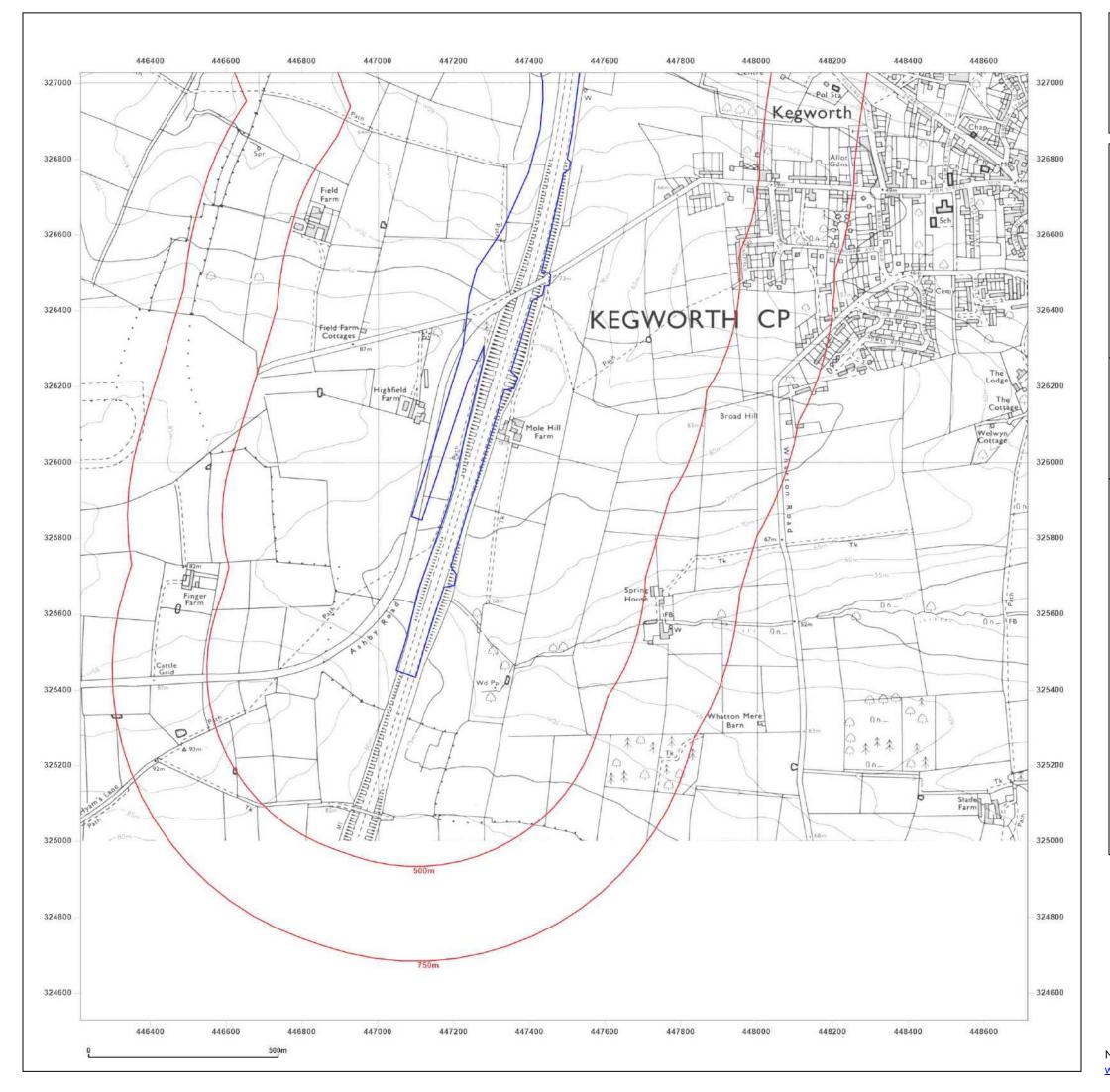




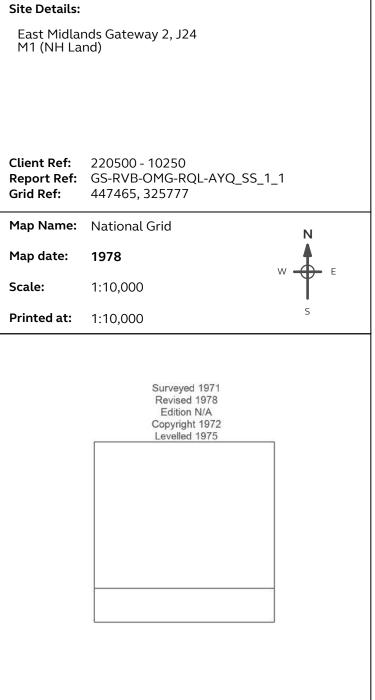
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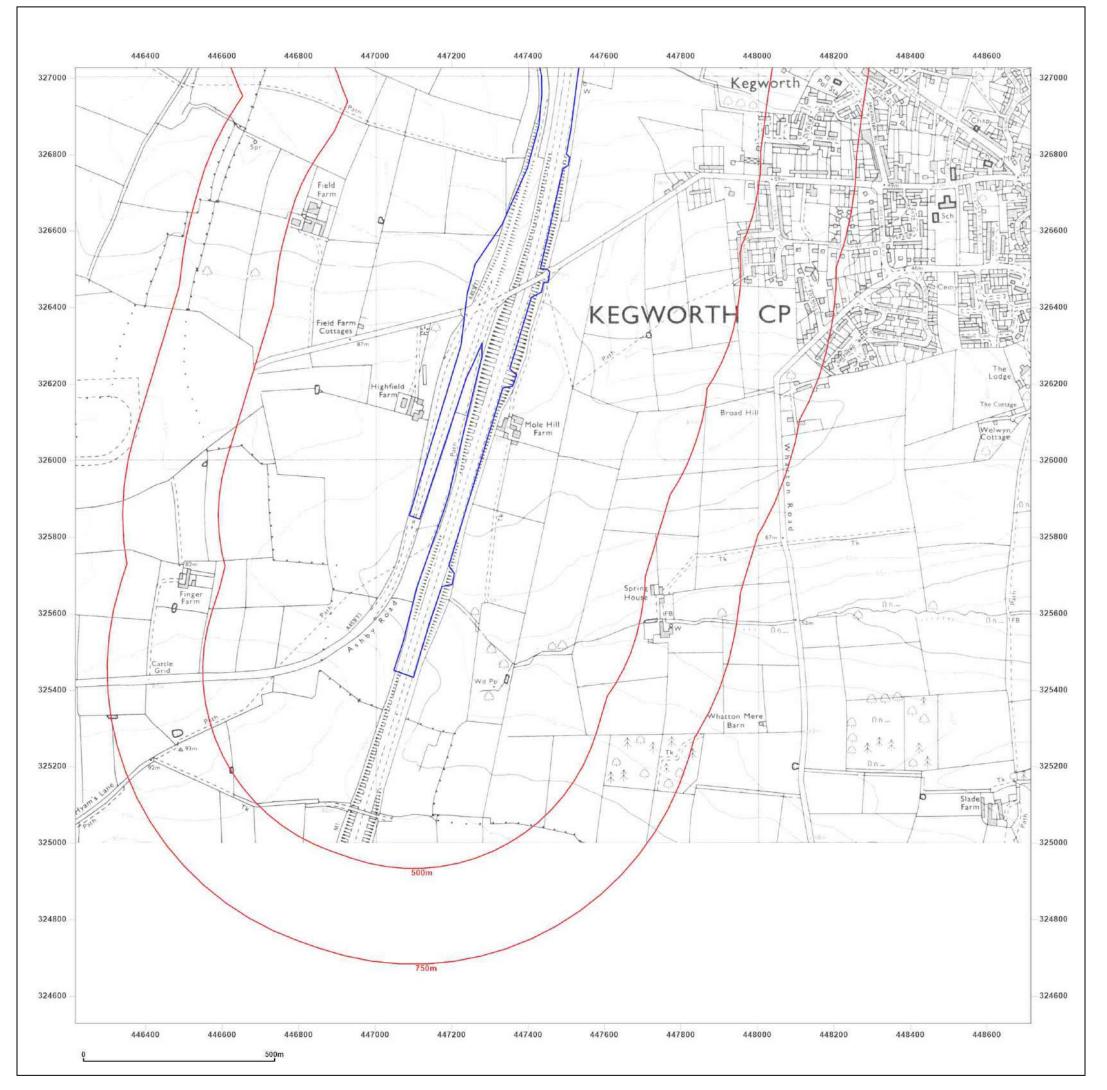




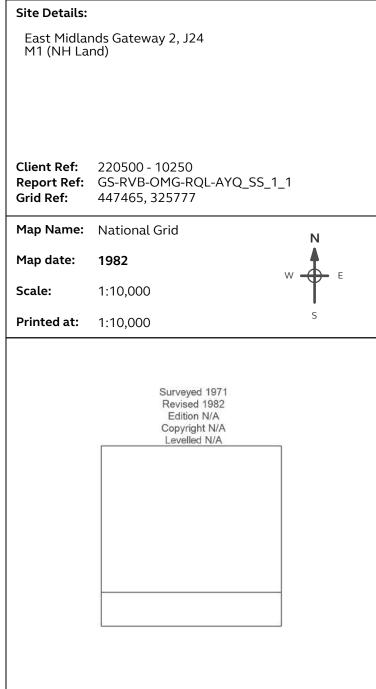
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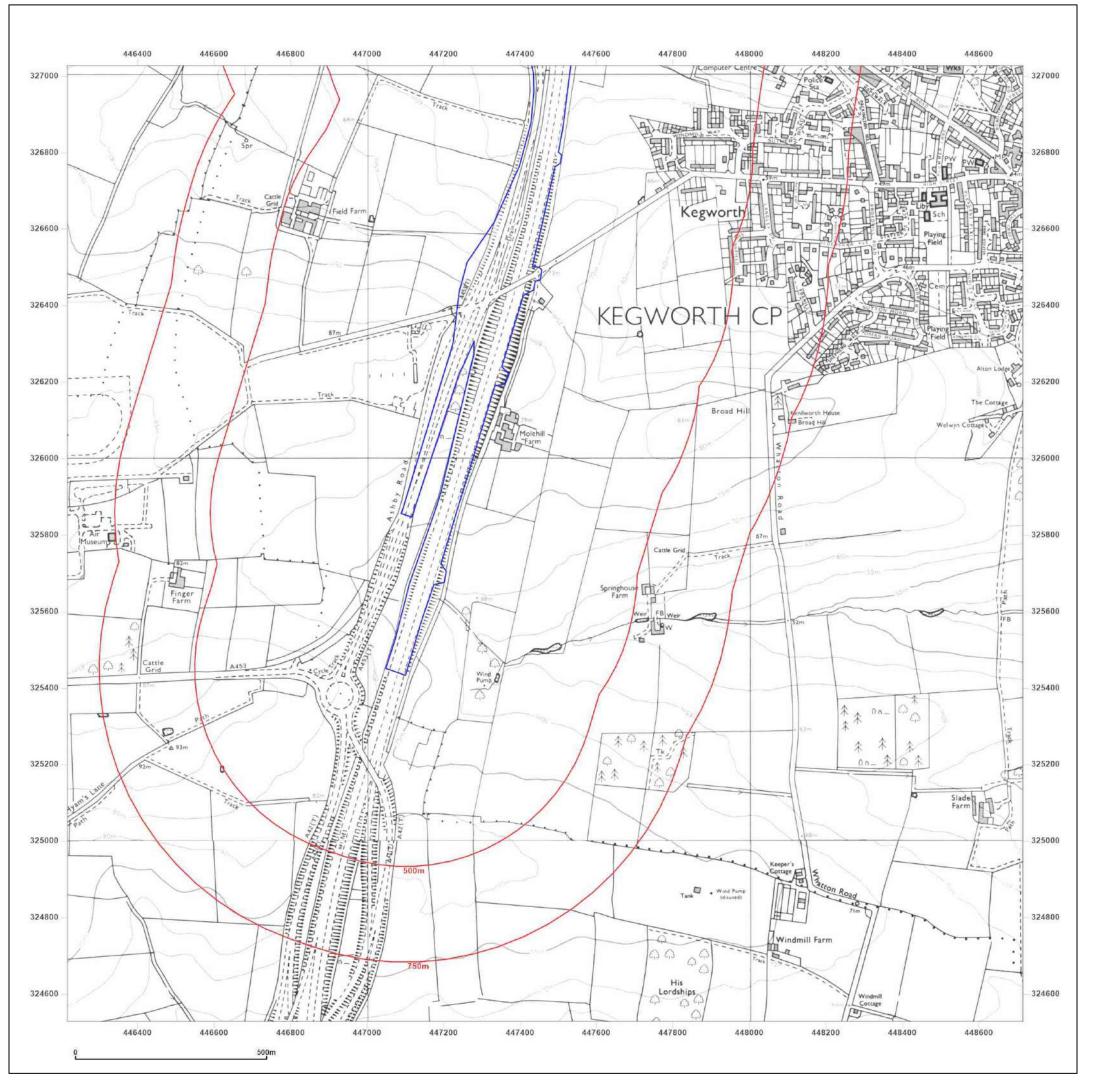




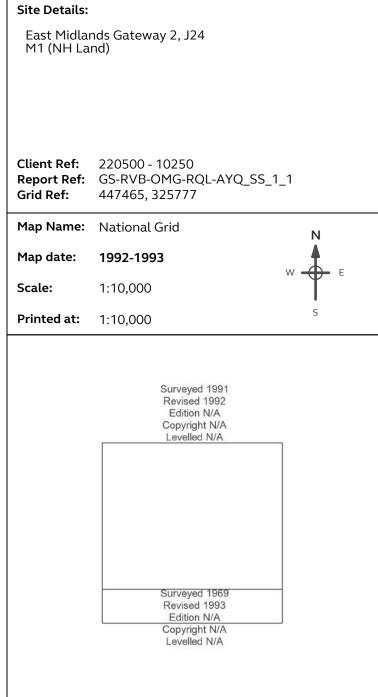
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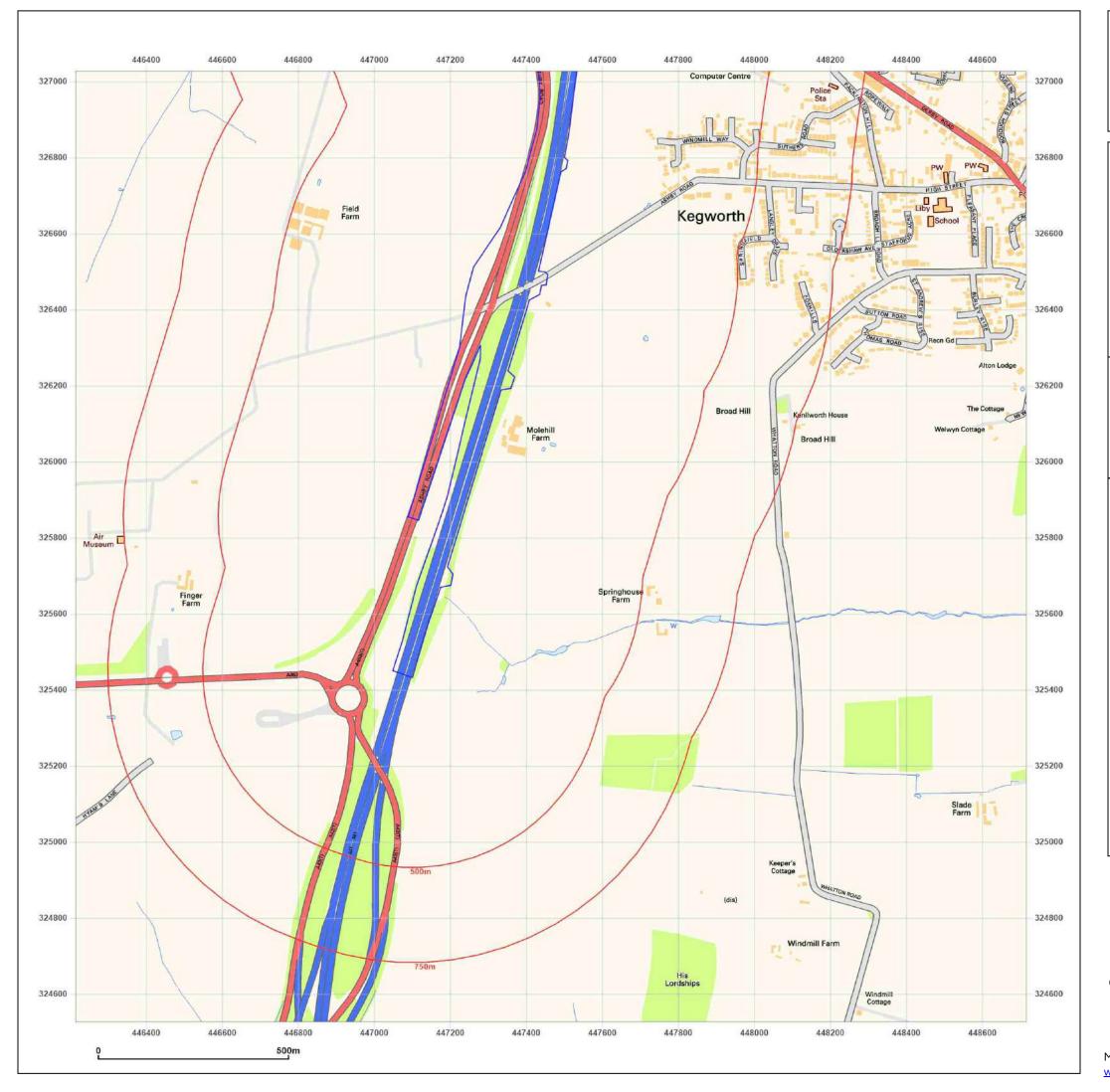




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Map legend available at:





East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_1

447465, 325777 **Grid Ref:**

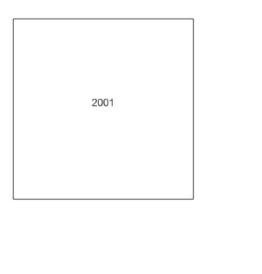
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Map date: 2001

Scale:

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Printed at: 1:10,000



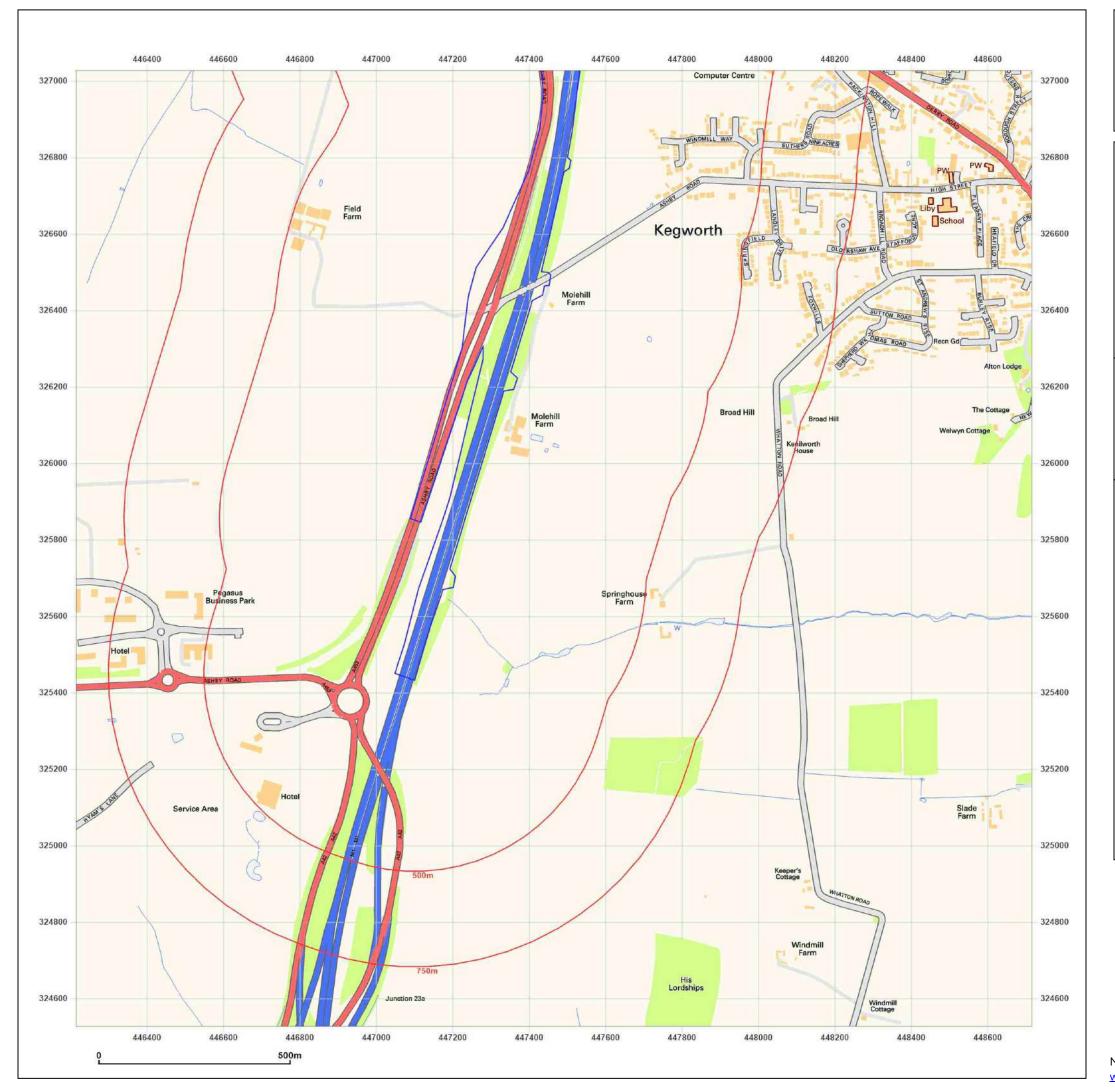


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Production date: 13 December 2024

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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_1

447465, 325777 **Grid Ref:**

Map Name: National Grid

2010 Map date:

Scale:

1:10,000

Printed at: 1:10,000

2010

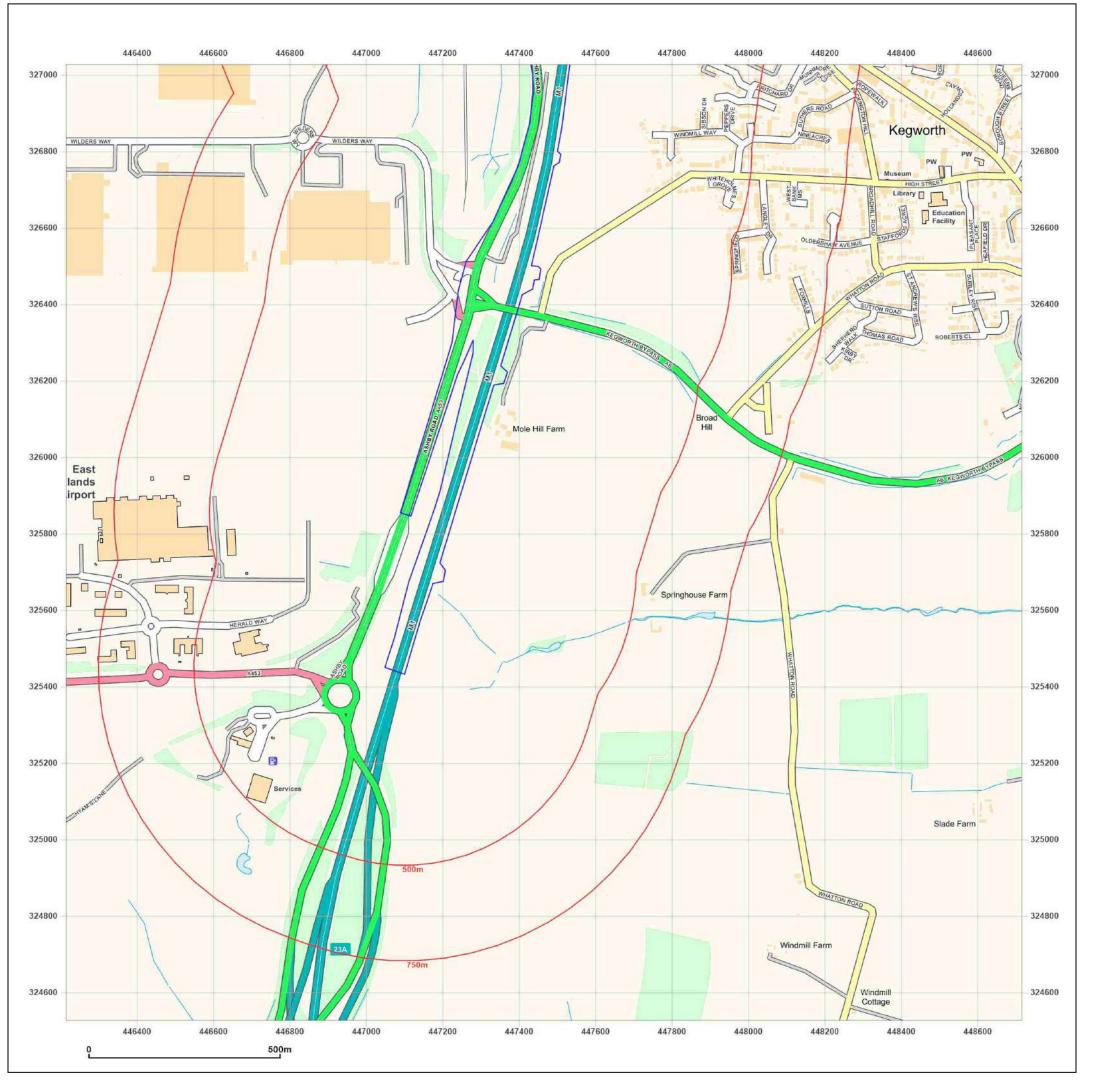


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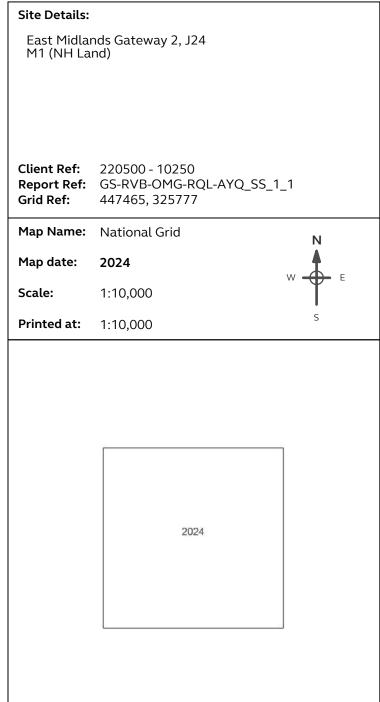
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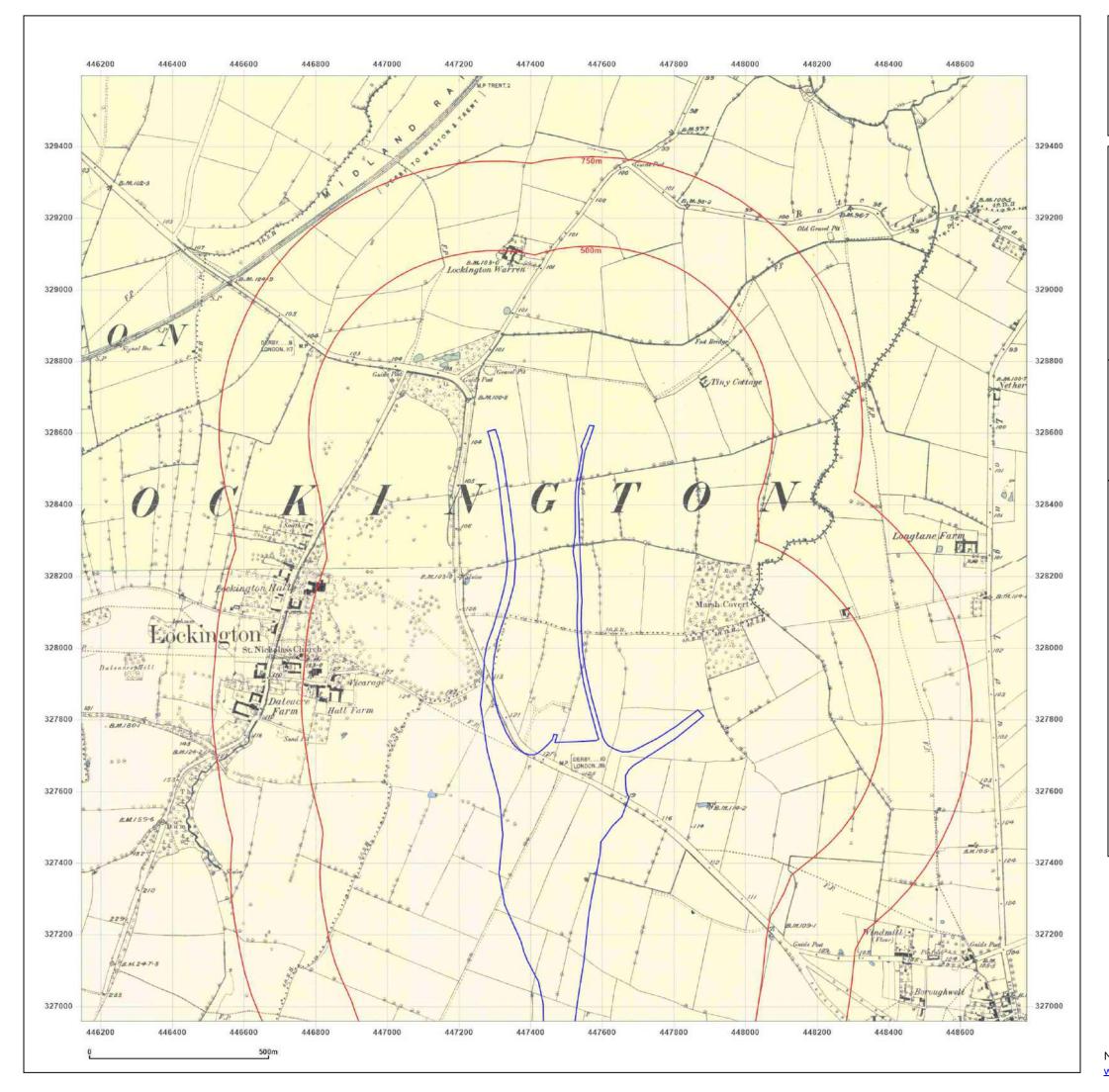




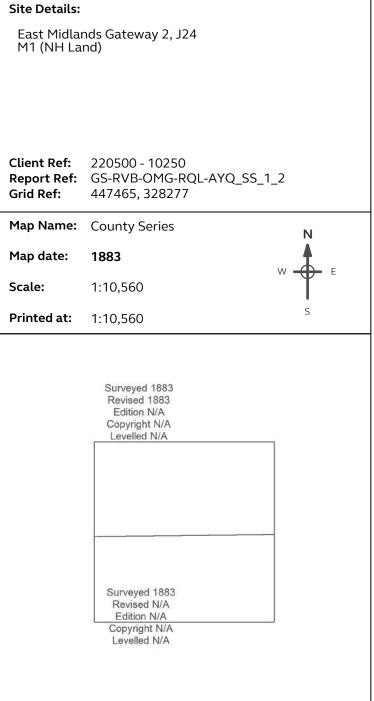
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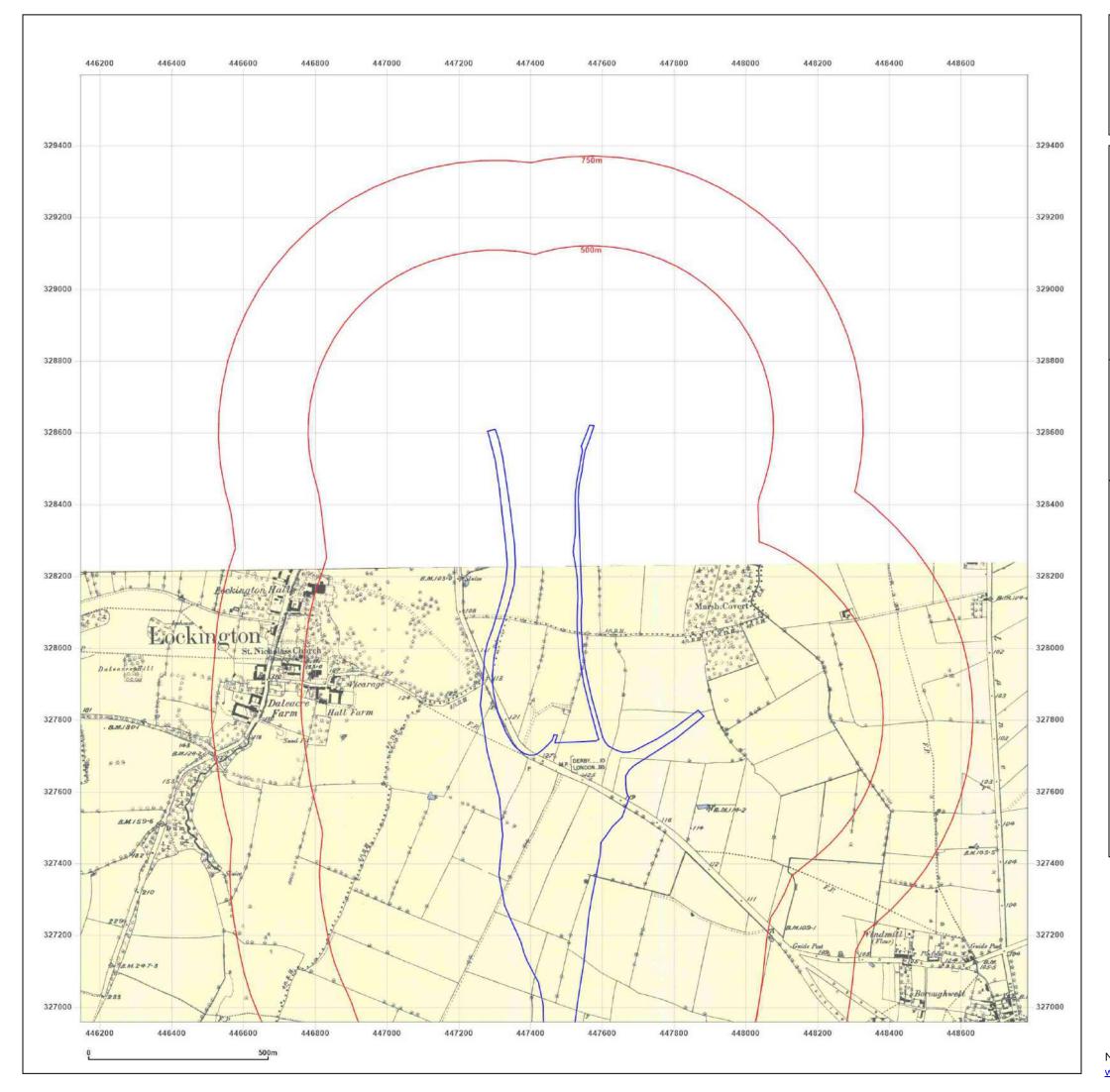




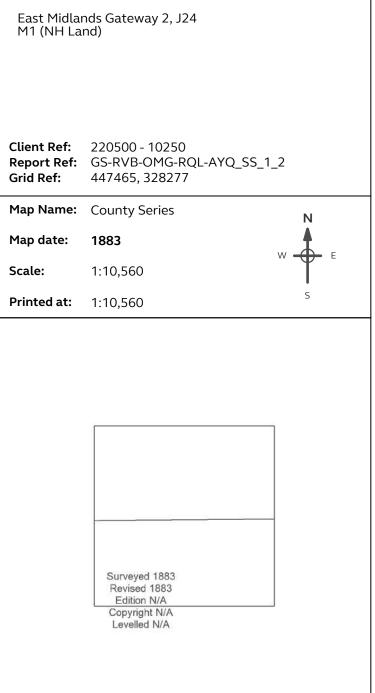
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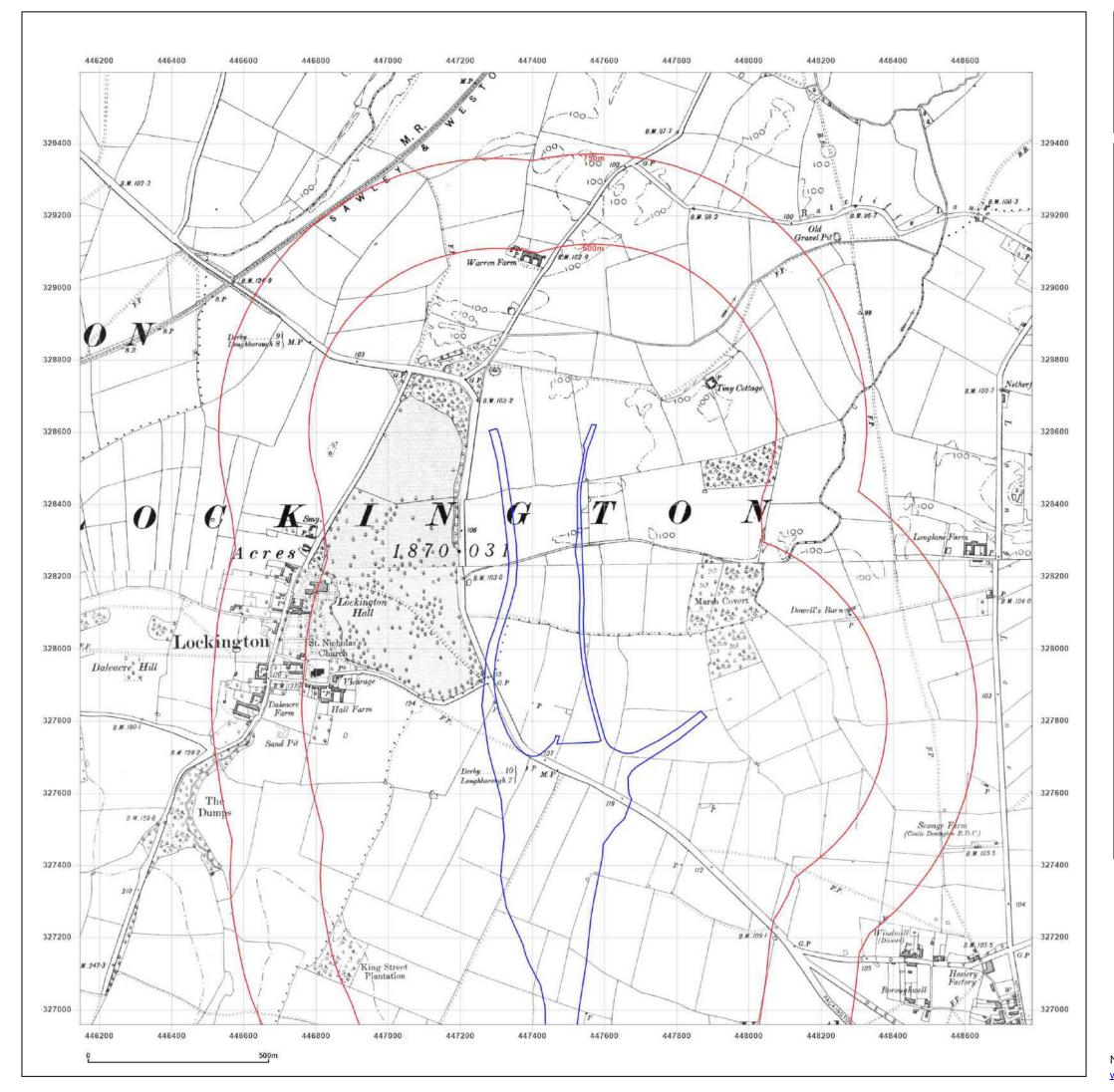


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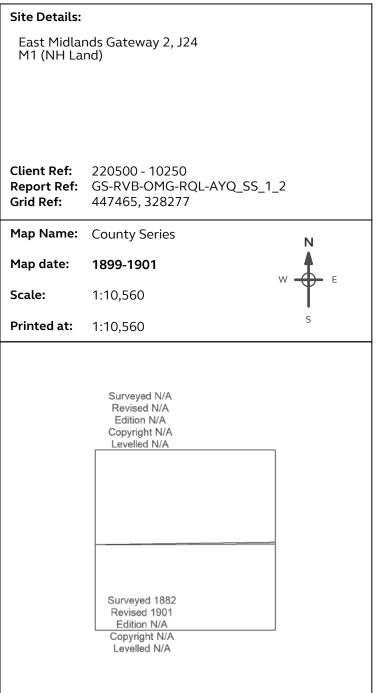
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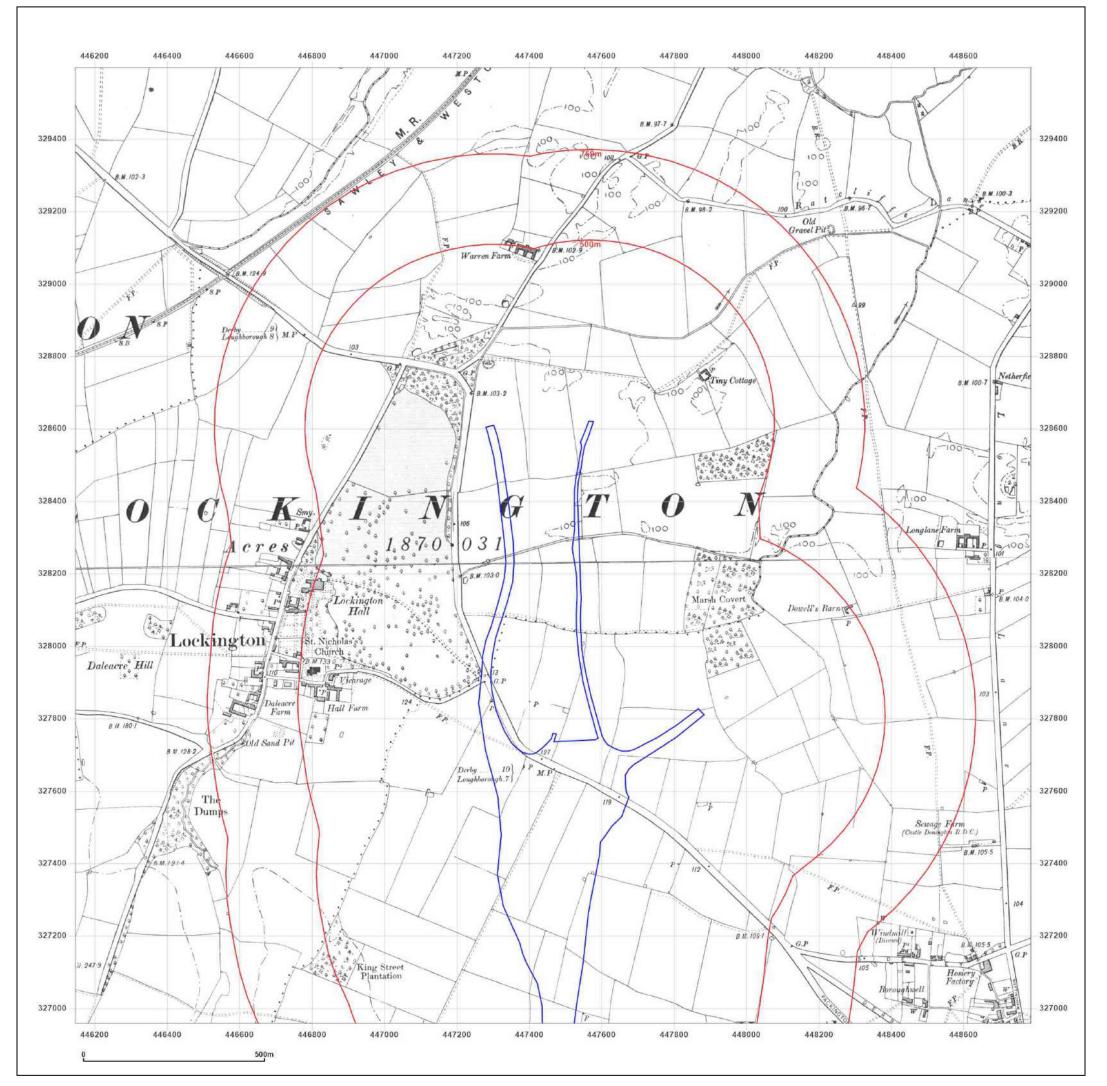




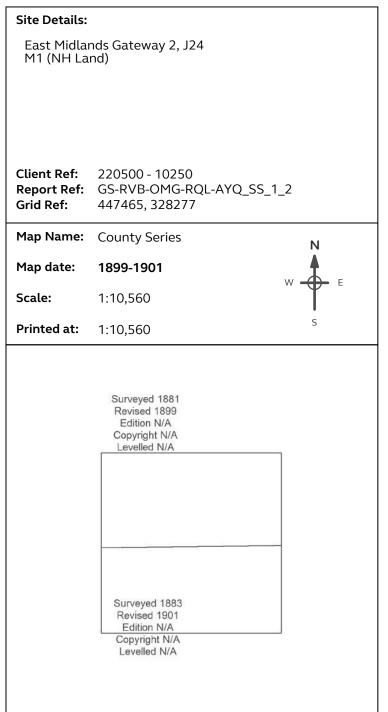
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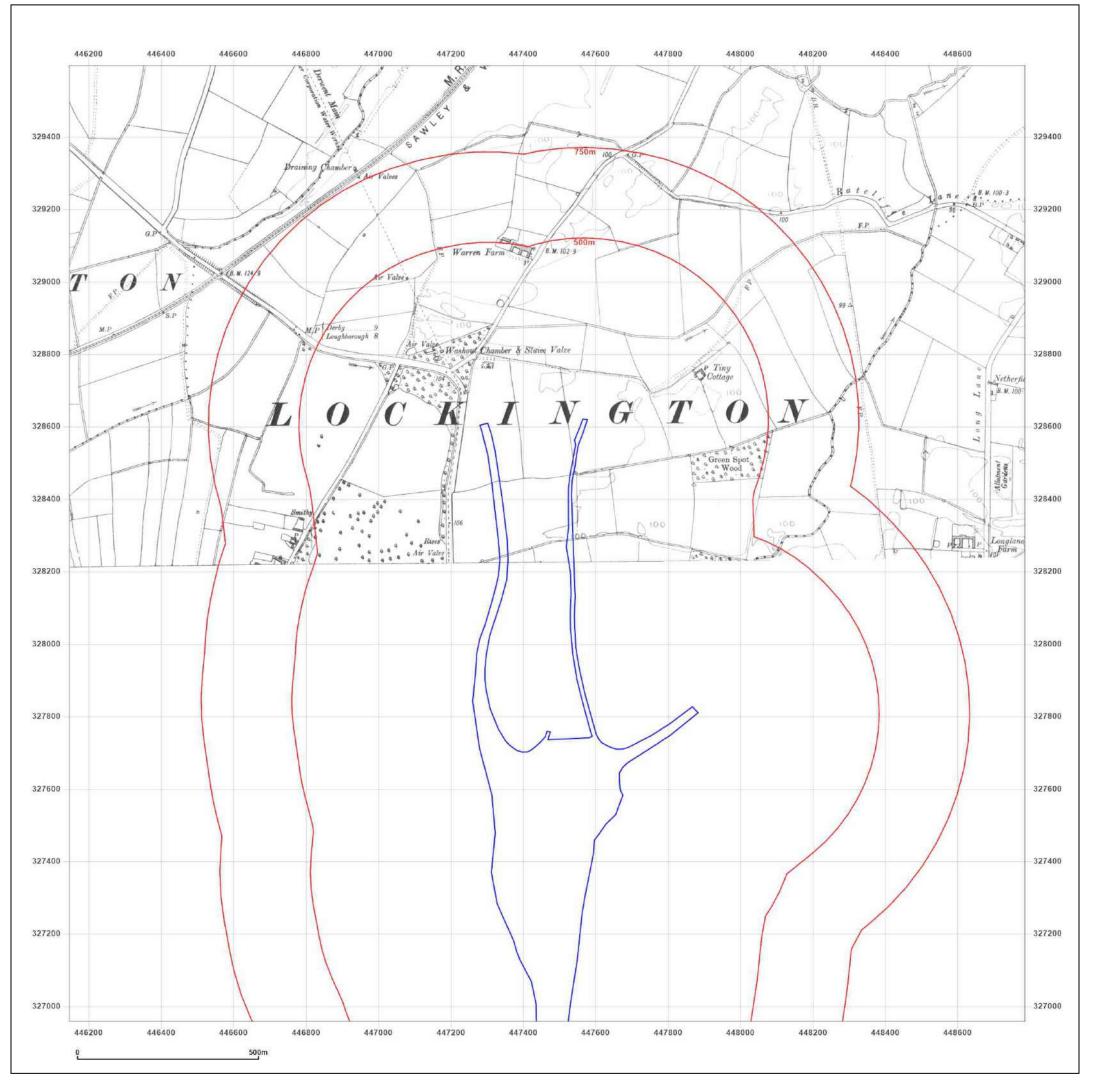




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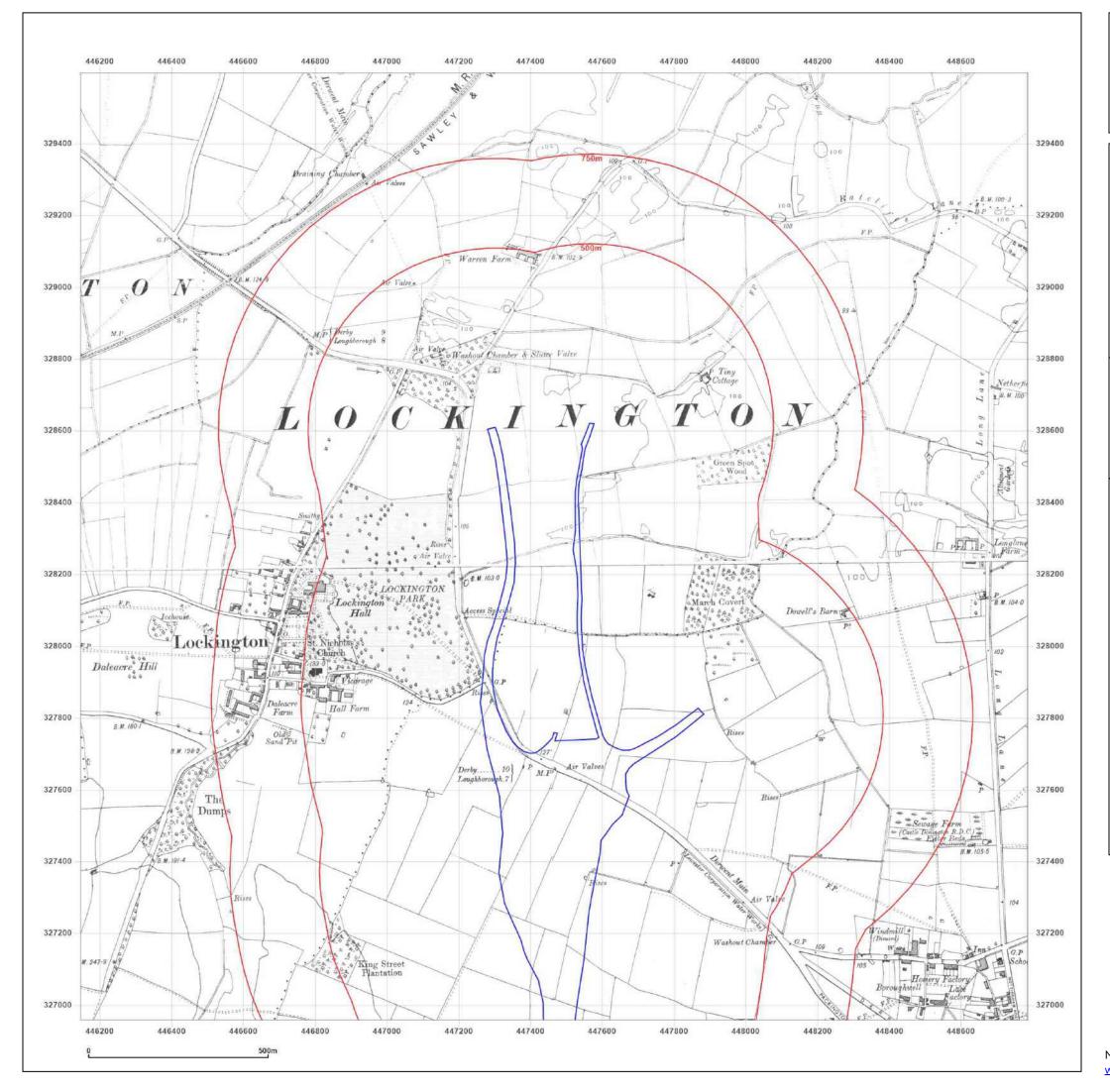
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	Surveyed 1881 Revised 1921 Edition N/A Copyright N/A Levelled N/A	



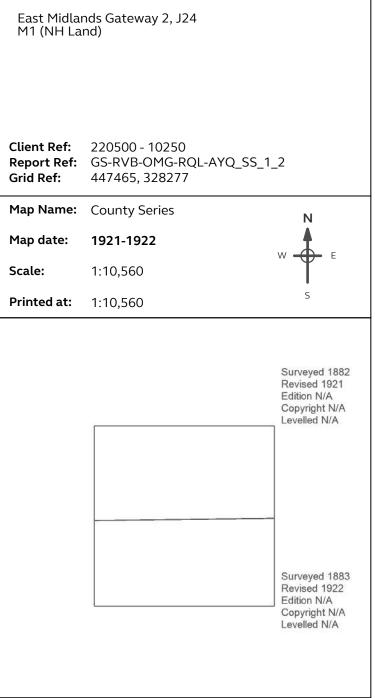
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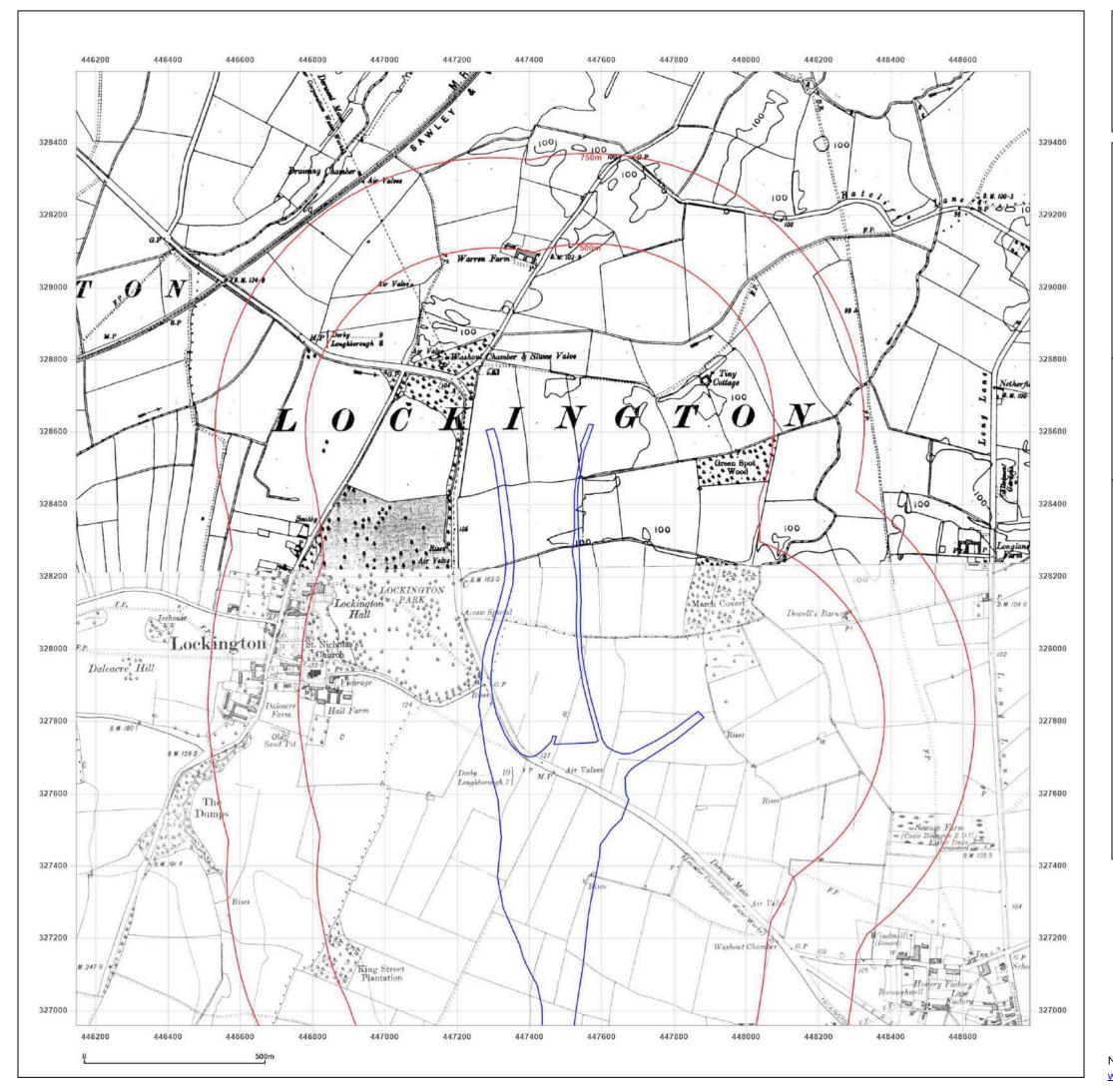


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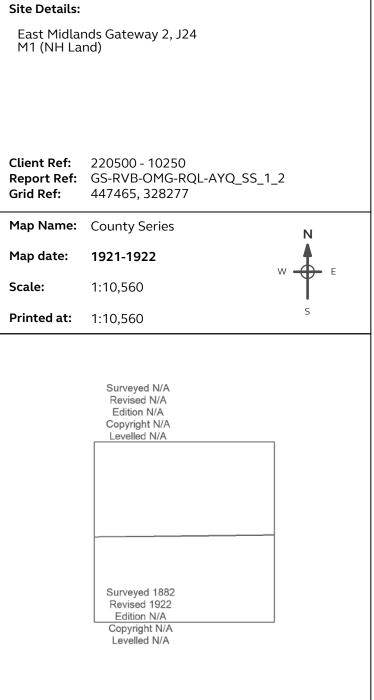
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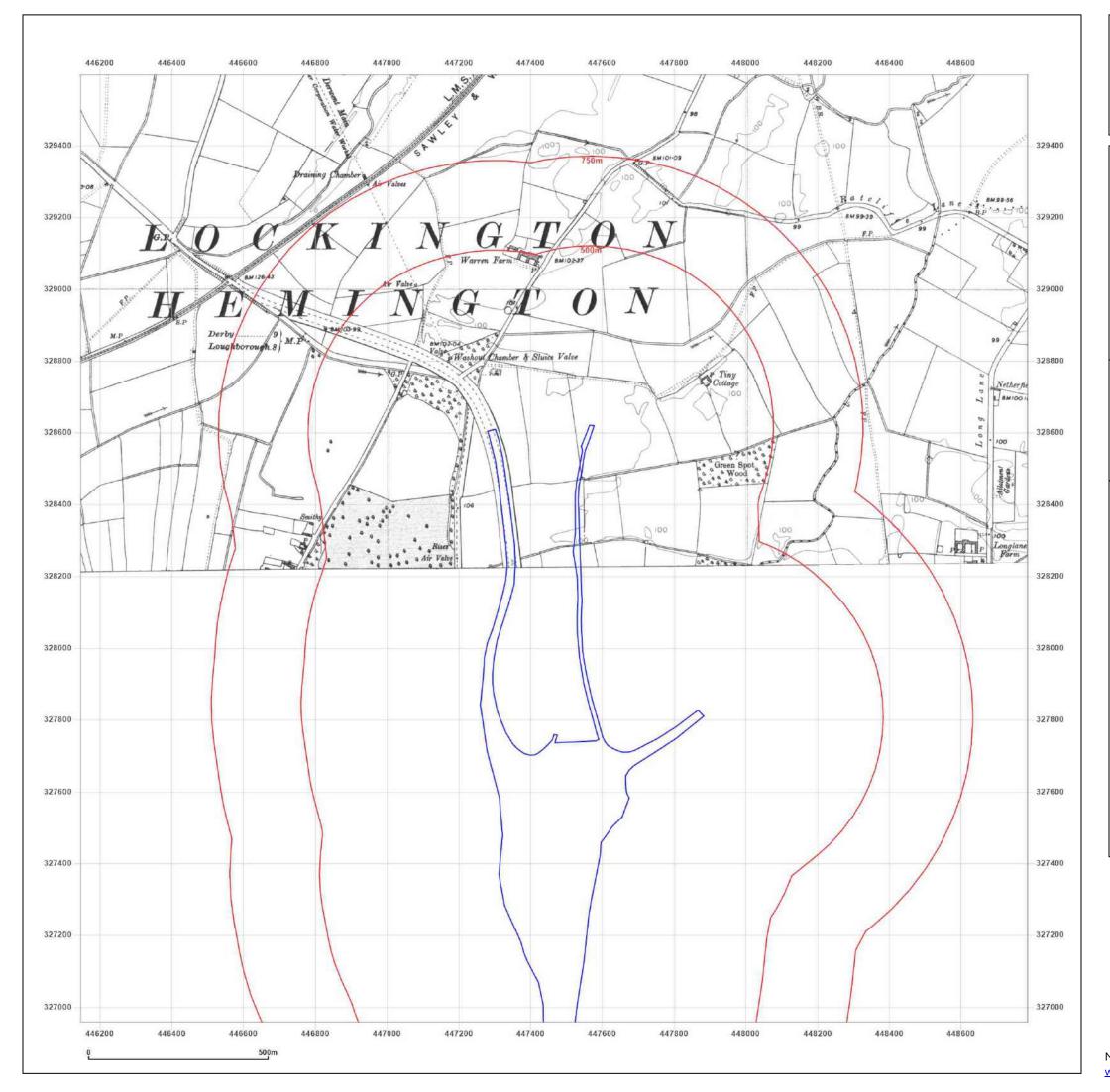




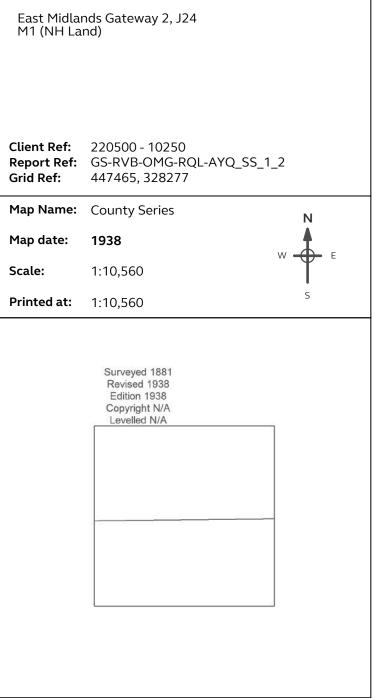
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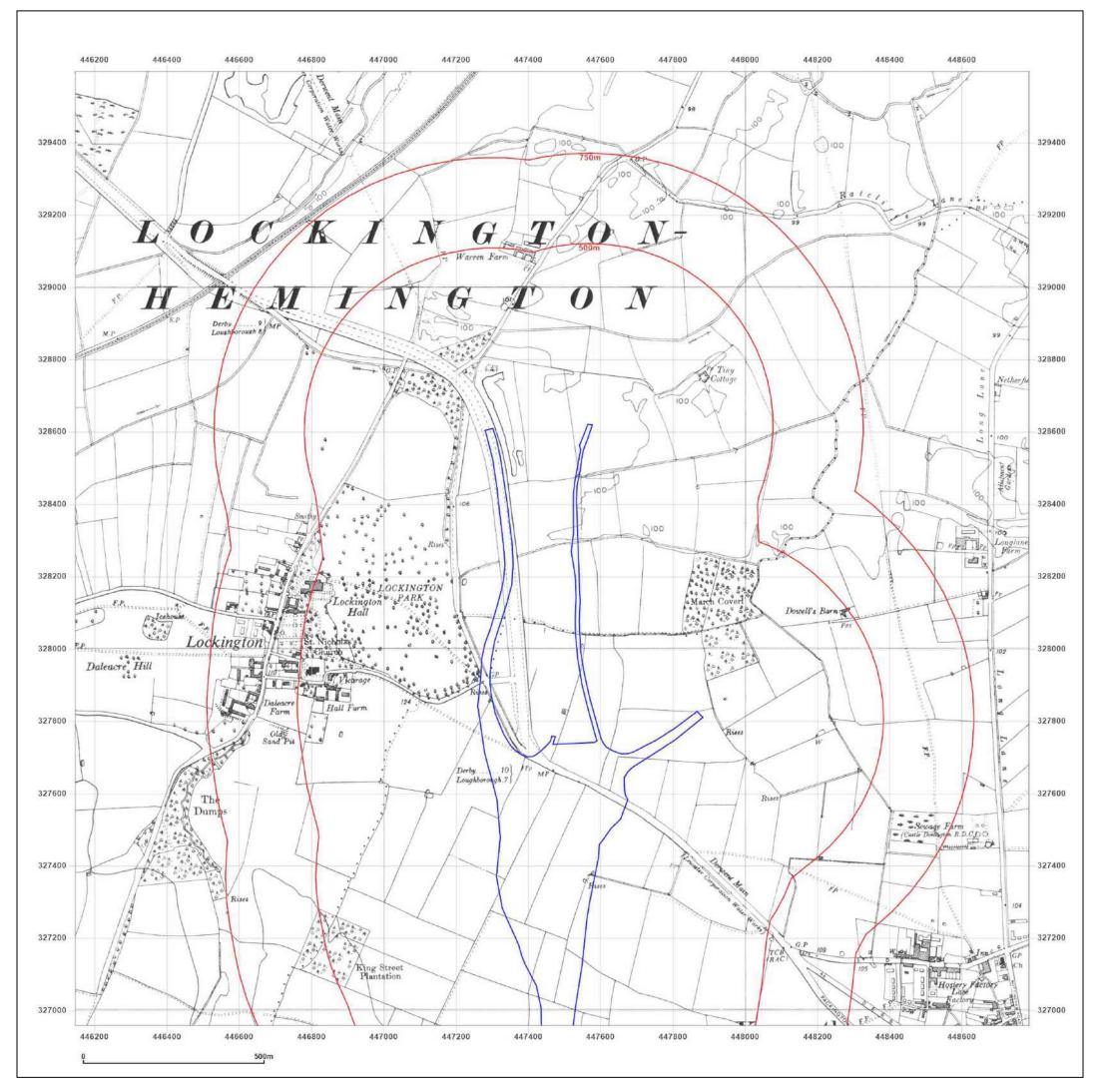


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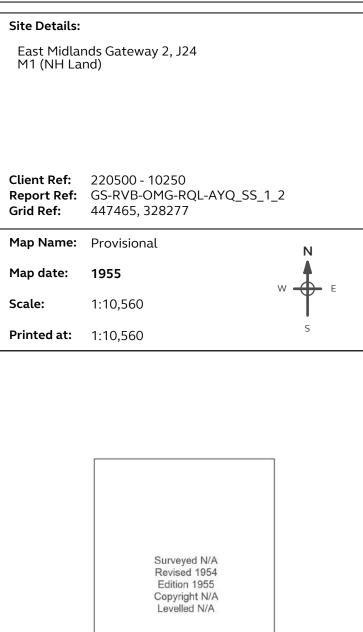
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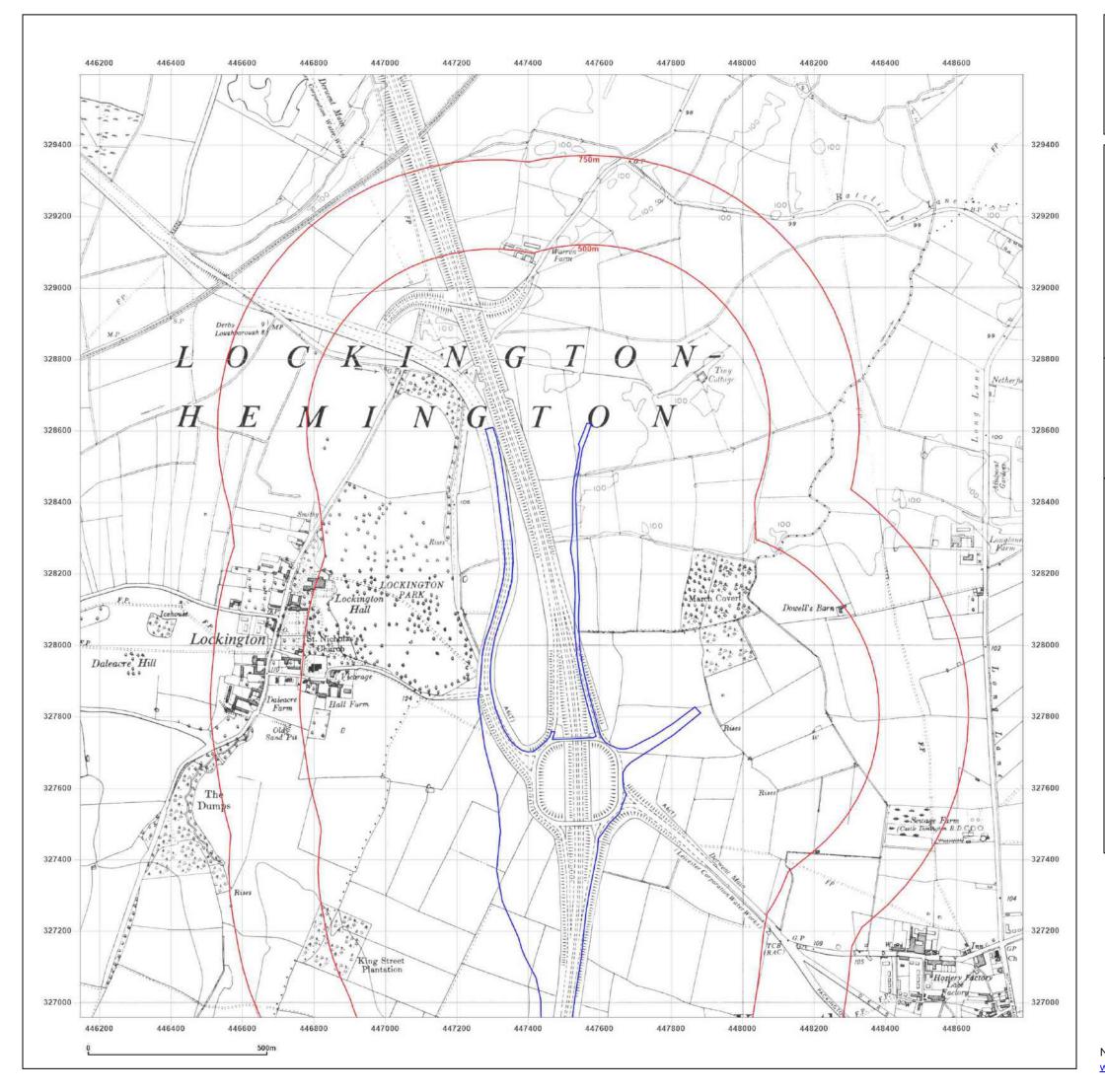




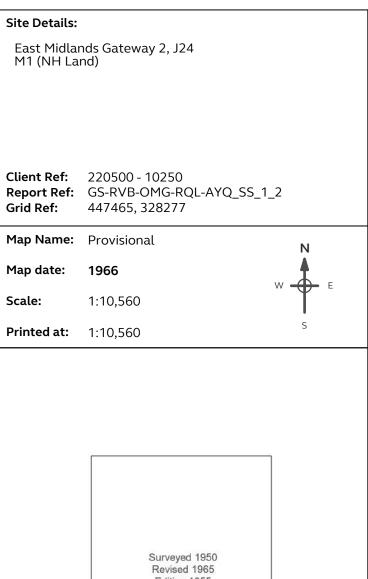
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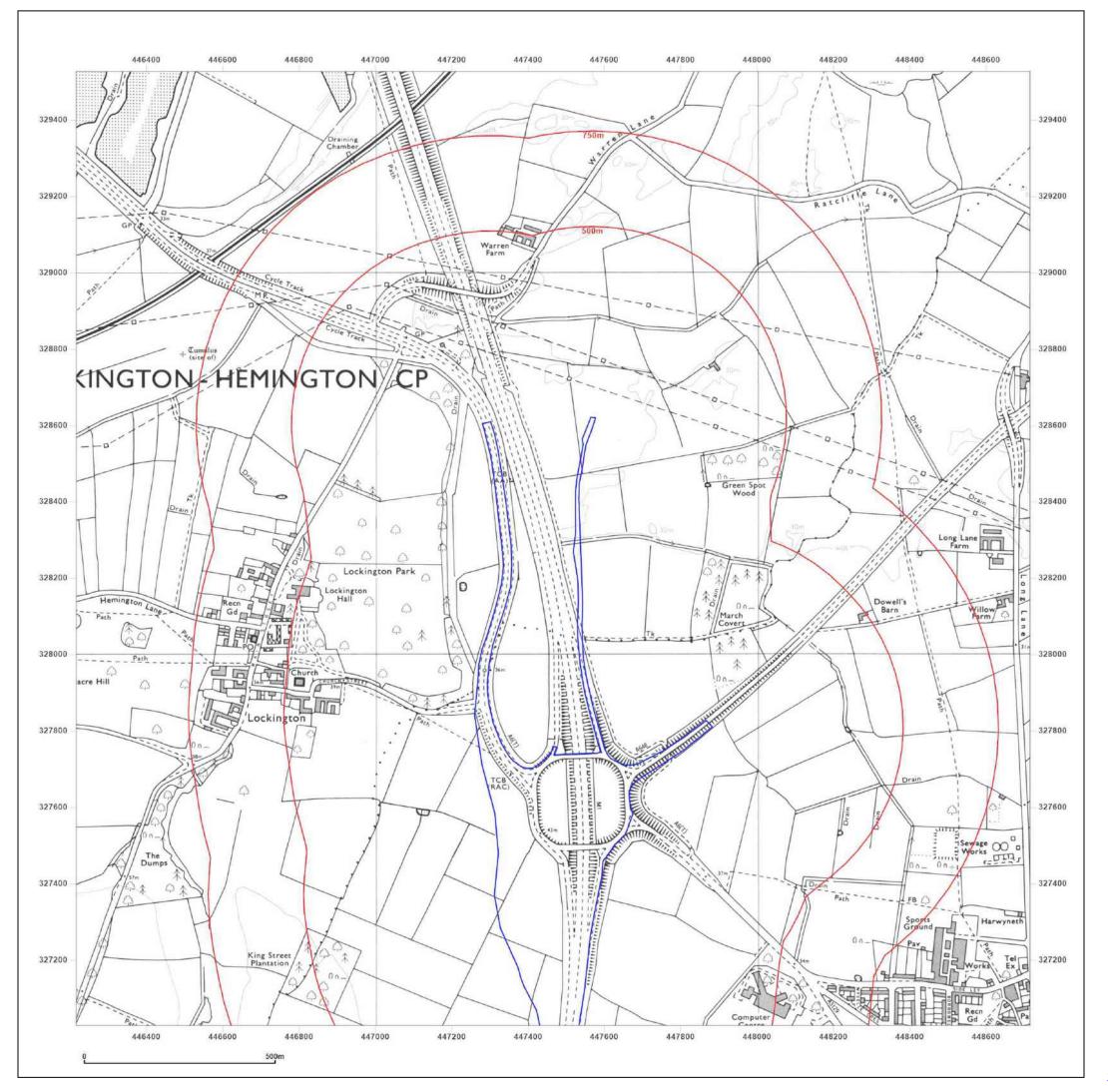
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Edition 1955

Copyright 1966 Levelled N/A

Production date: 13 December 2024

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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_2

Grid Ref: 447465, 328277

Map Name: National Grid

Map date: 1971

Scale: 1:10,000

Printed at: 1:10,000

Surveyed 1971 Revised 1971 Edition N/A Copyright N/A Levelled N/A

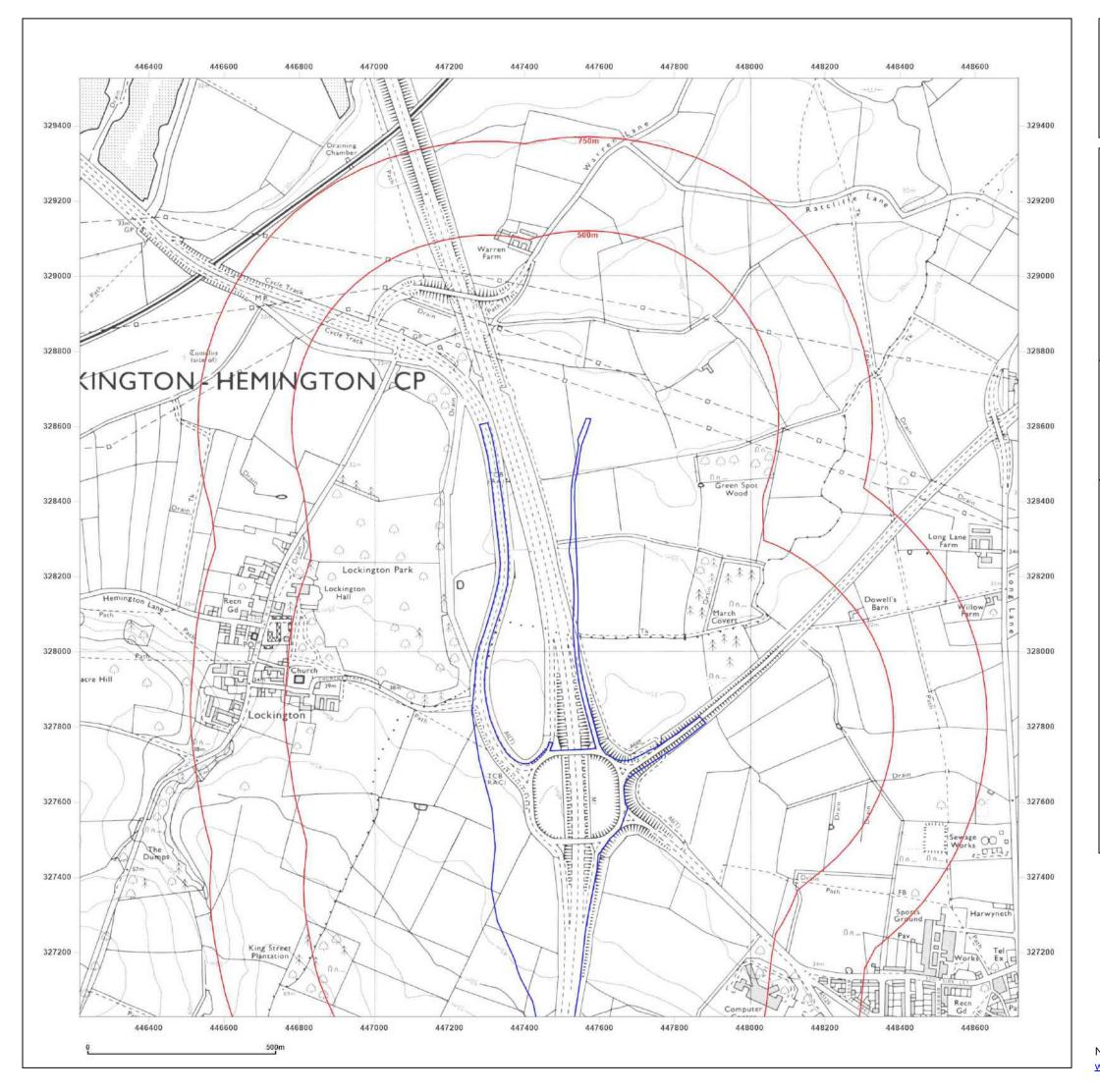


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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_2

Grid Ref: 447465, 328277

Map Name: National Grid

Map date: 1978

Scale: 1:10,000

Printed at: 1:10,000

Surveyed 1971 Revised 1978 Edition N/A Copyright 1972 Levelled 1975

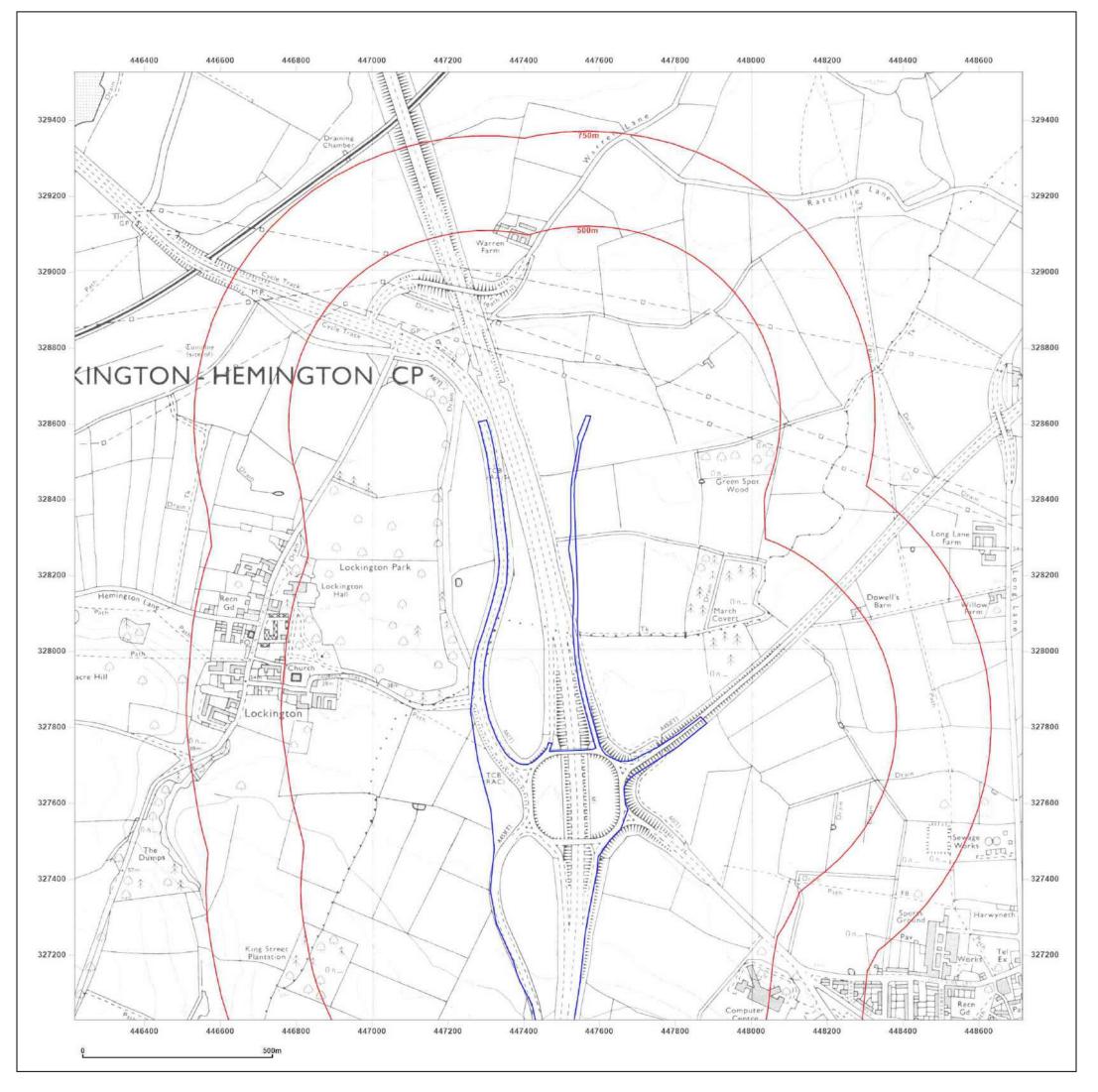


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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_2

Grid Ref: 447465, 328277

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

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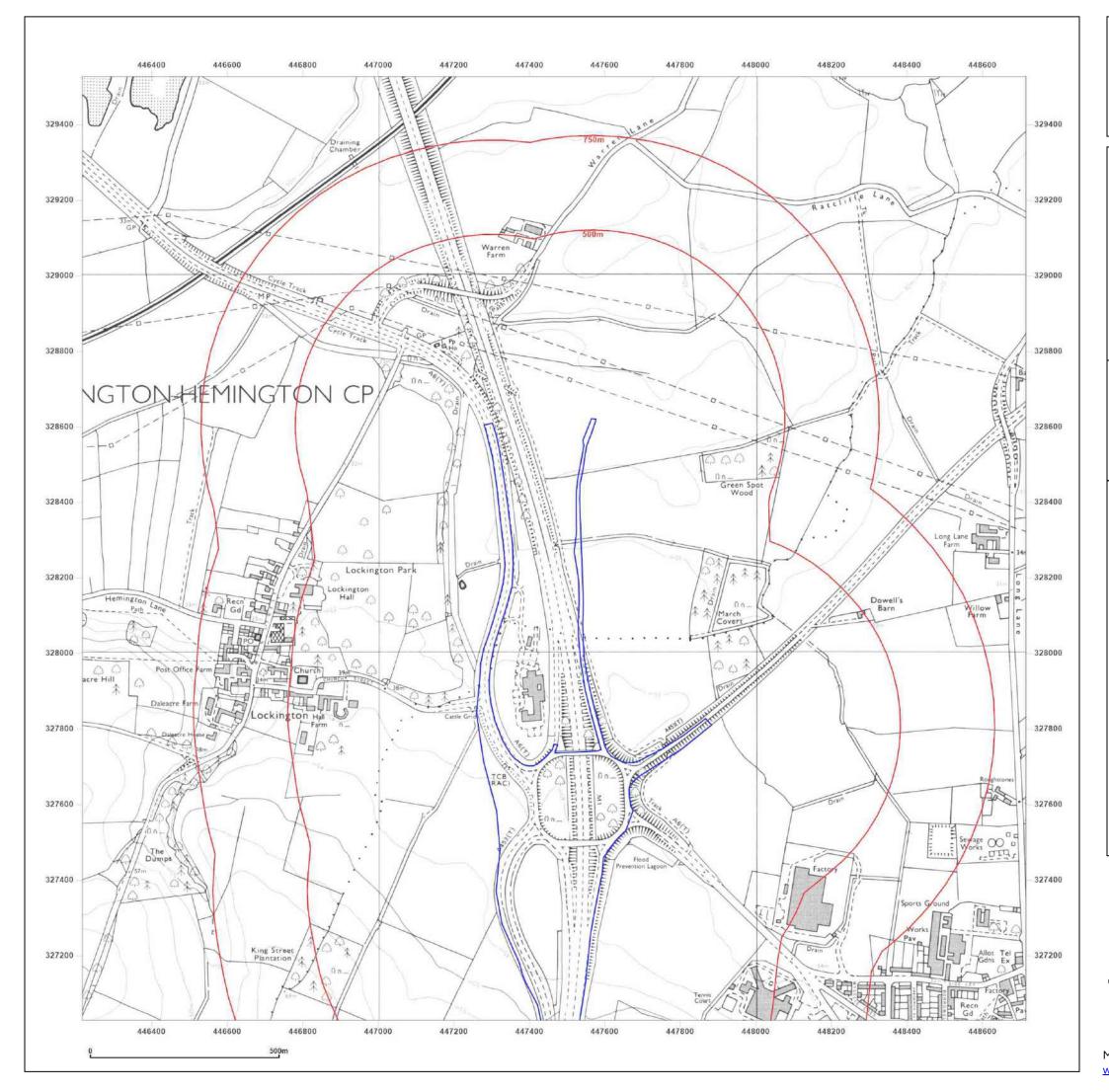


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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_SS_1_2

Grid Ref: 447465, 328277

Map Name: National Grid

Map date: 1992

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Printed at: 1:10,000

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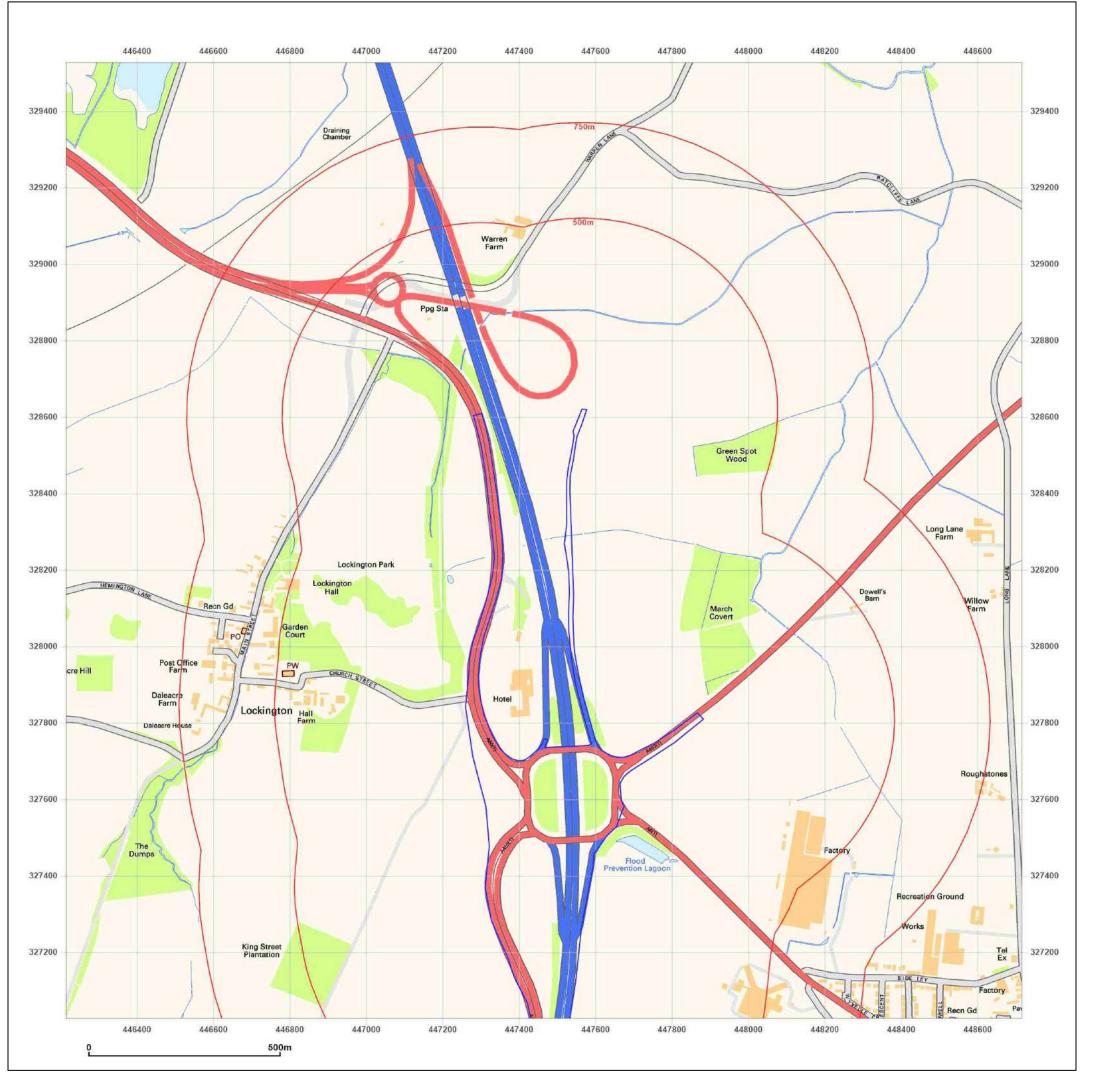


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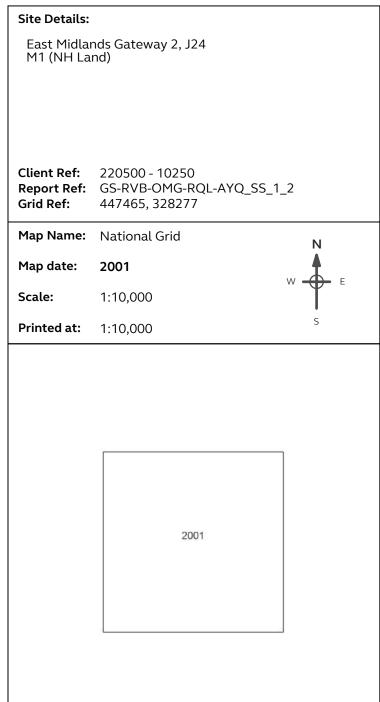
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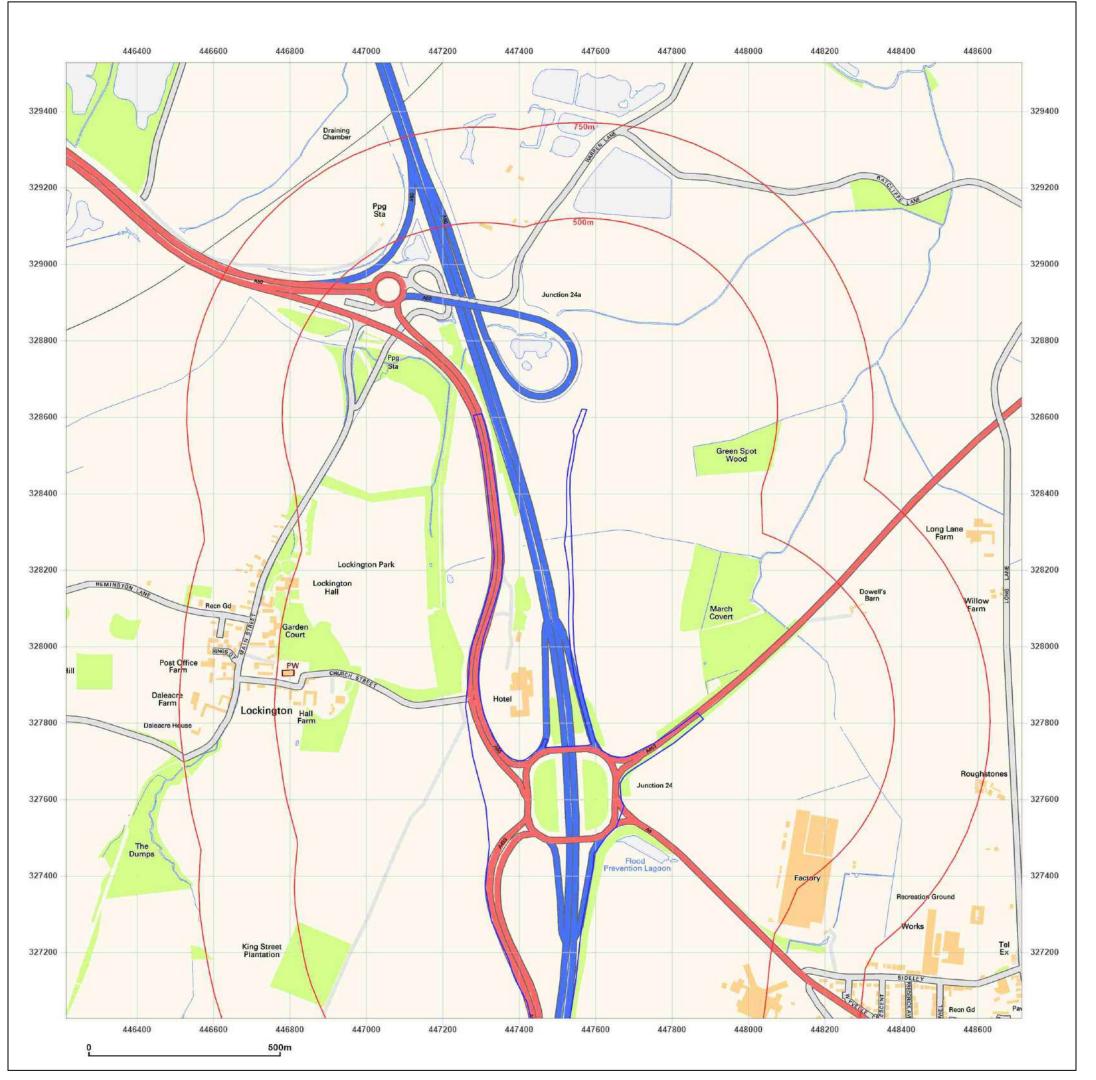




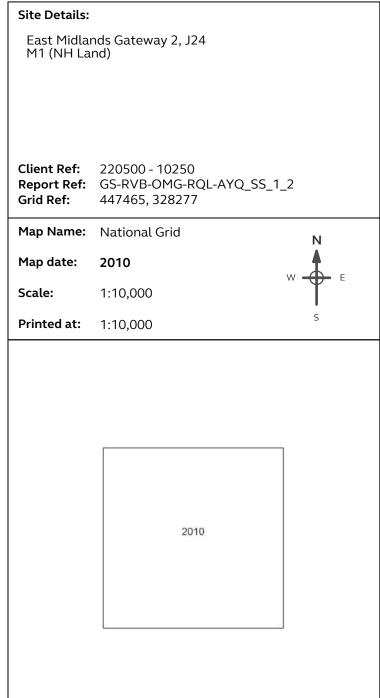
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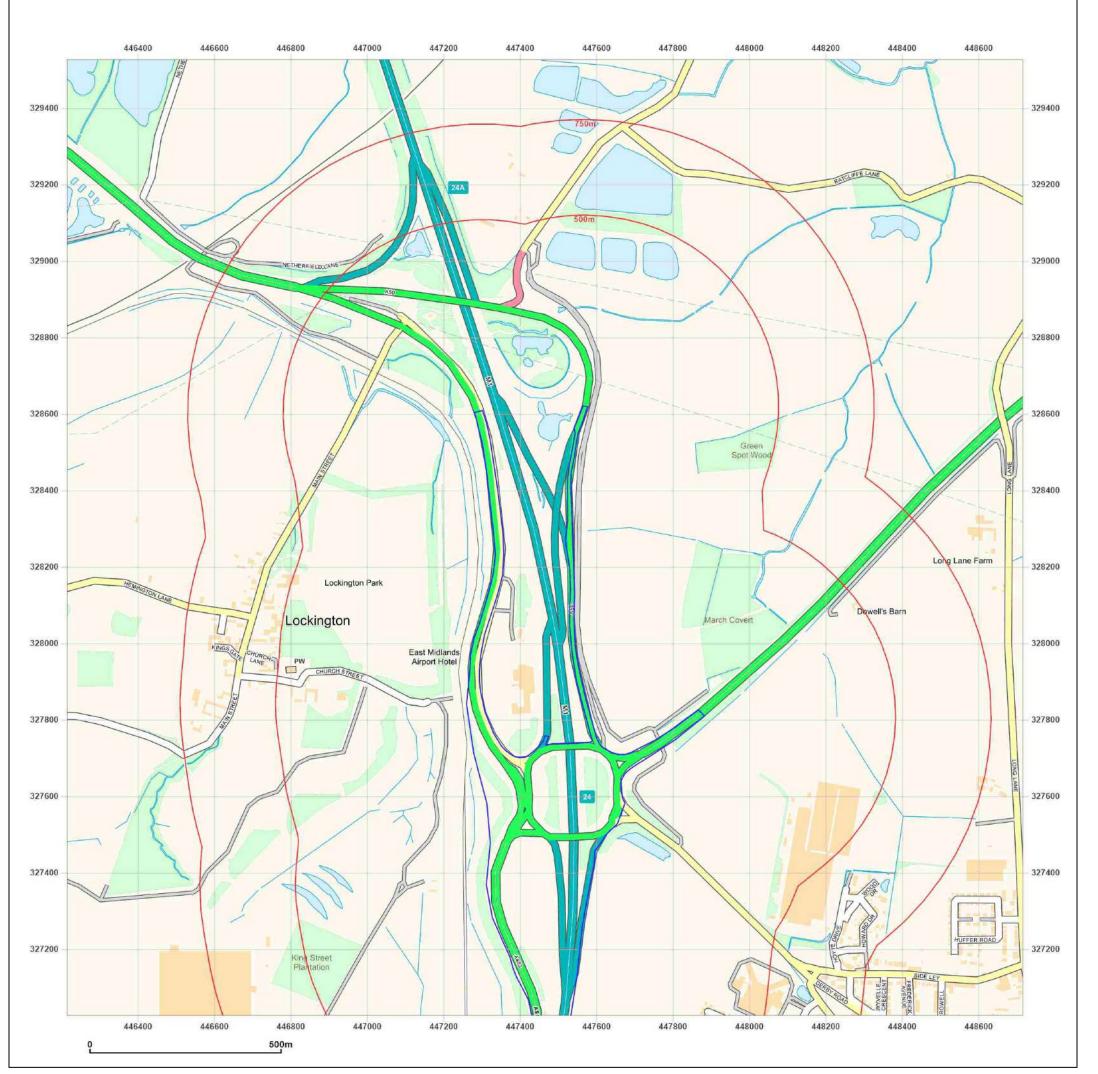




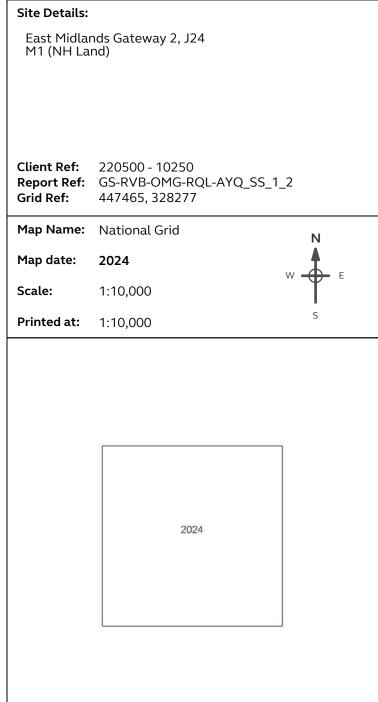
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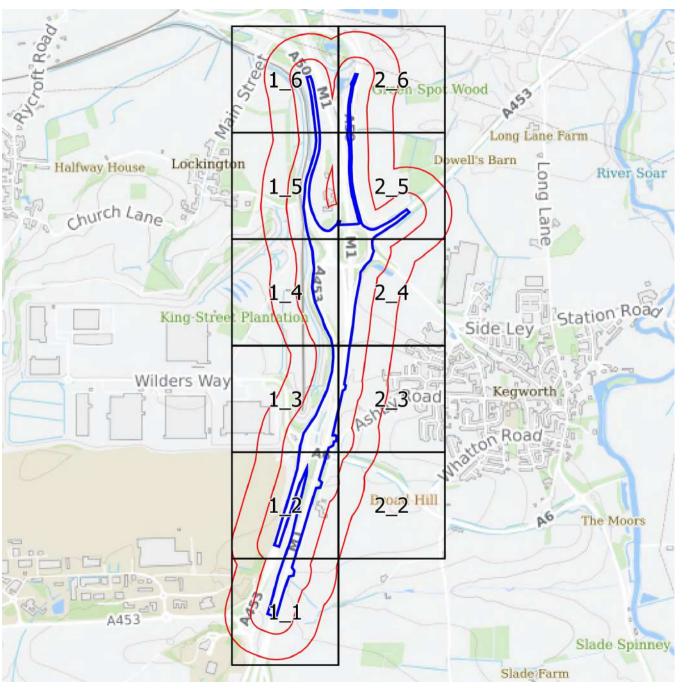




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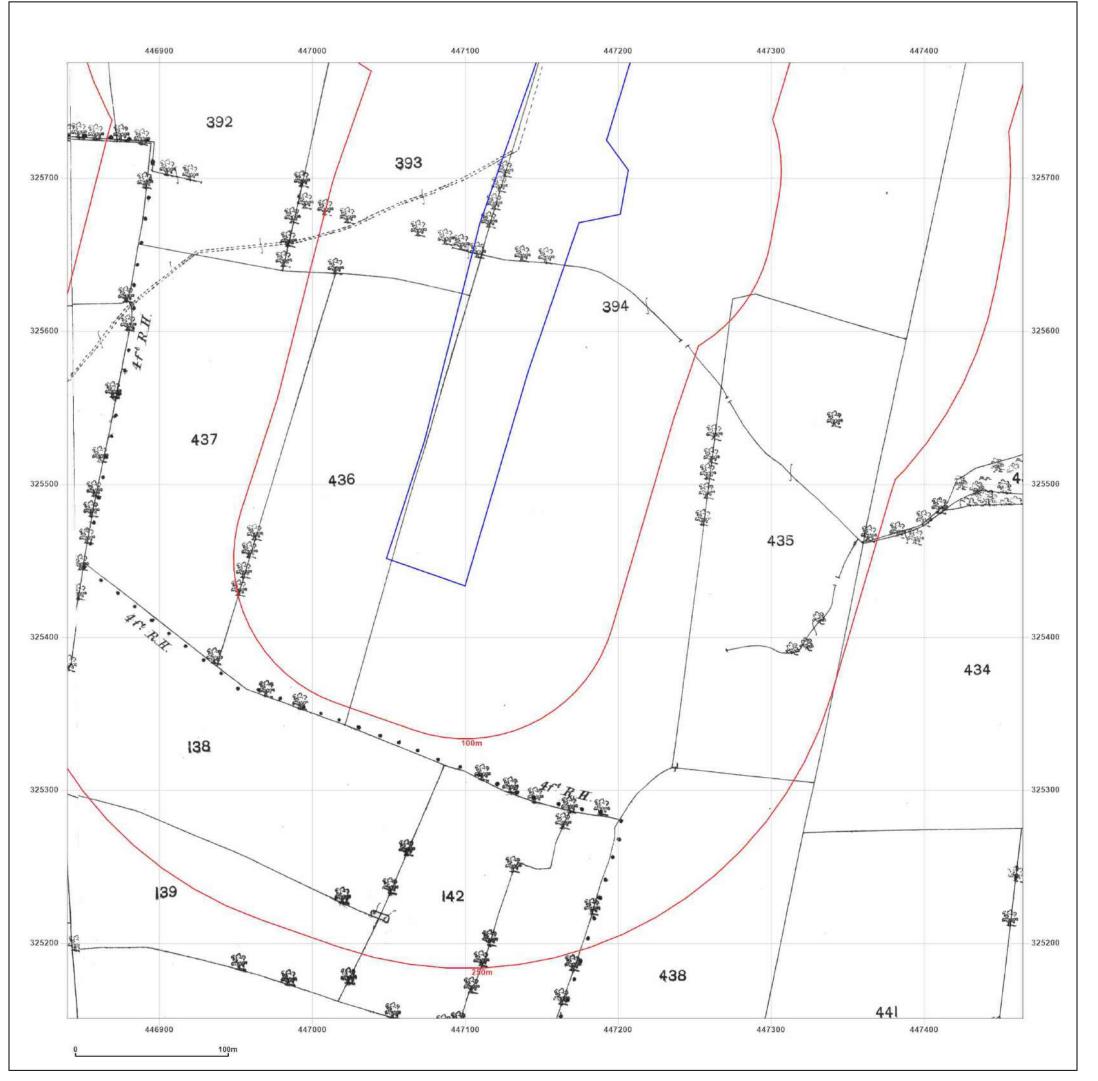
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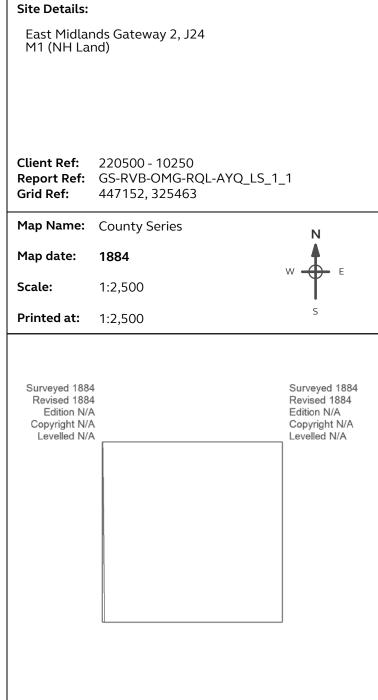


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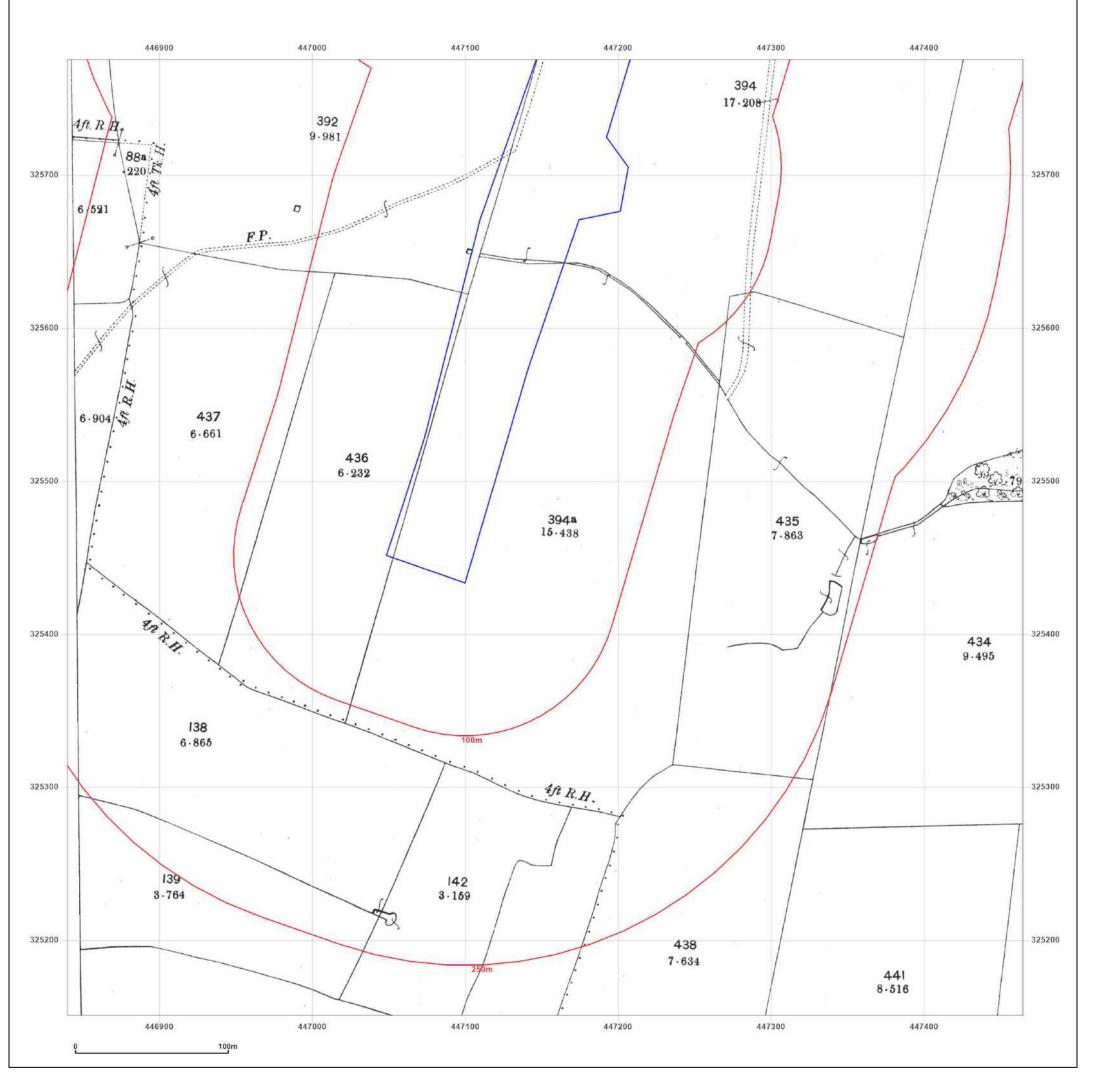




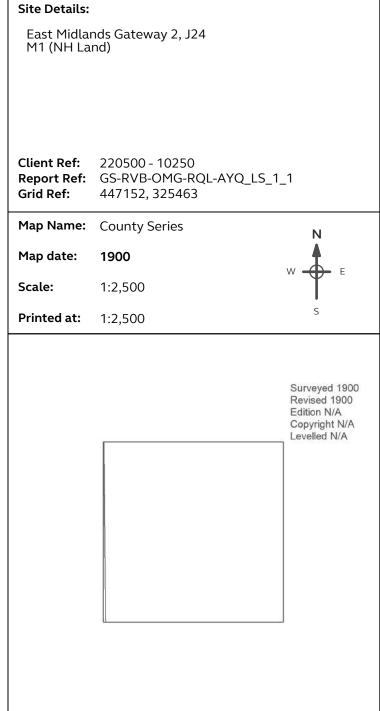
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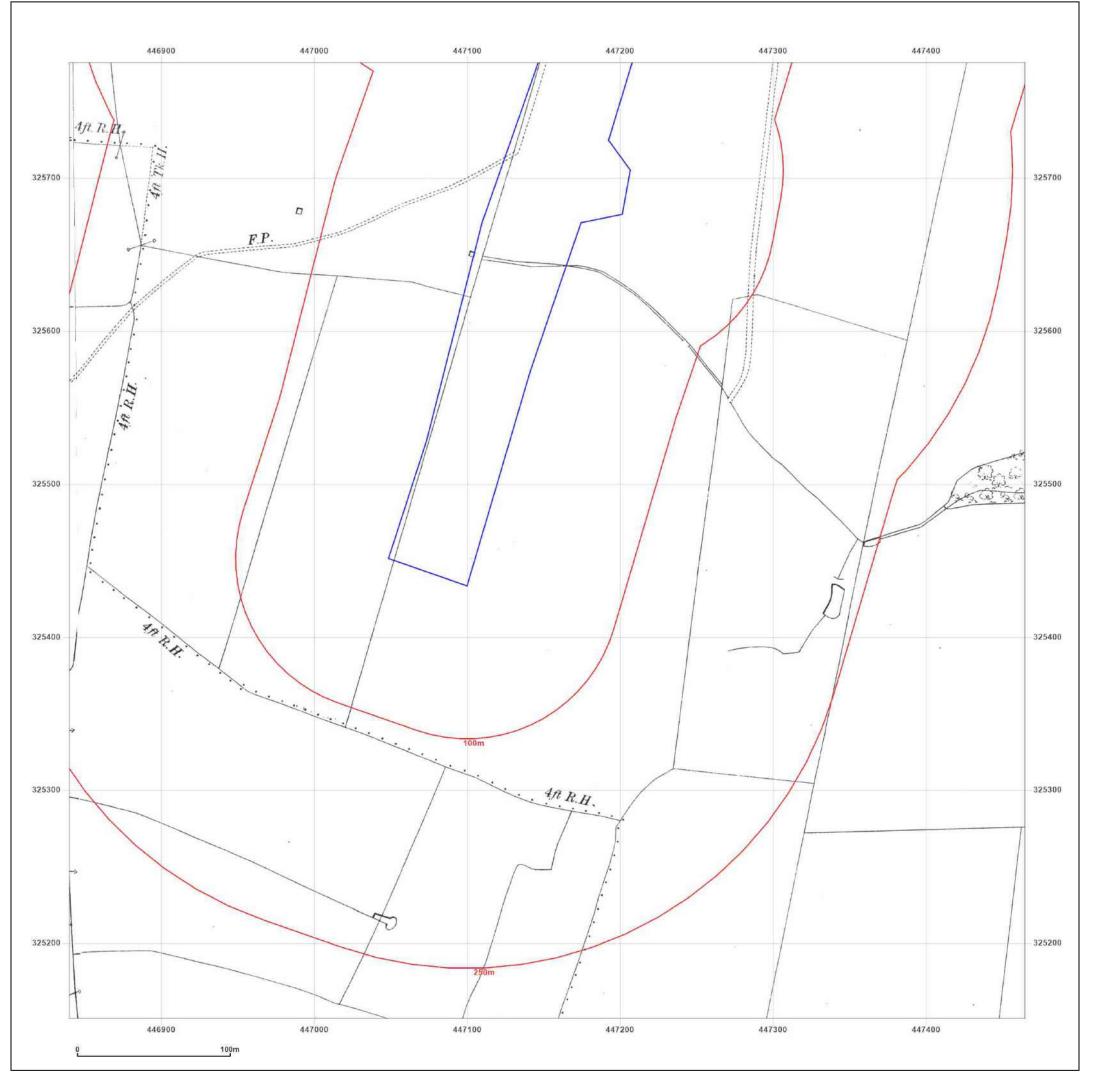




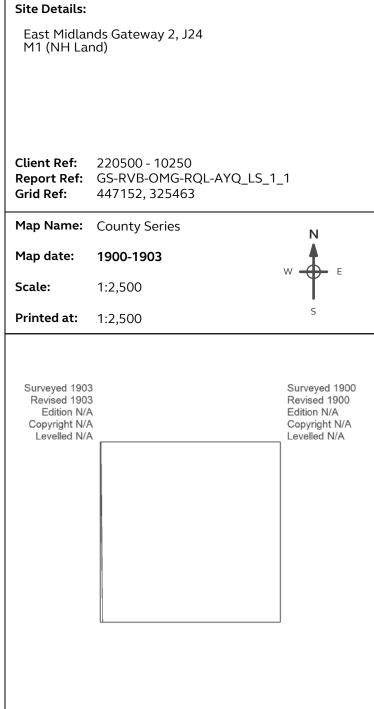
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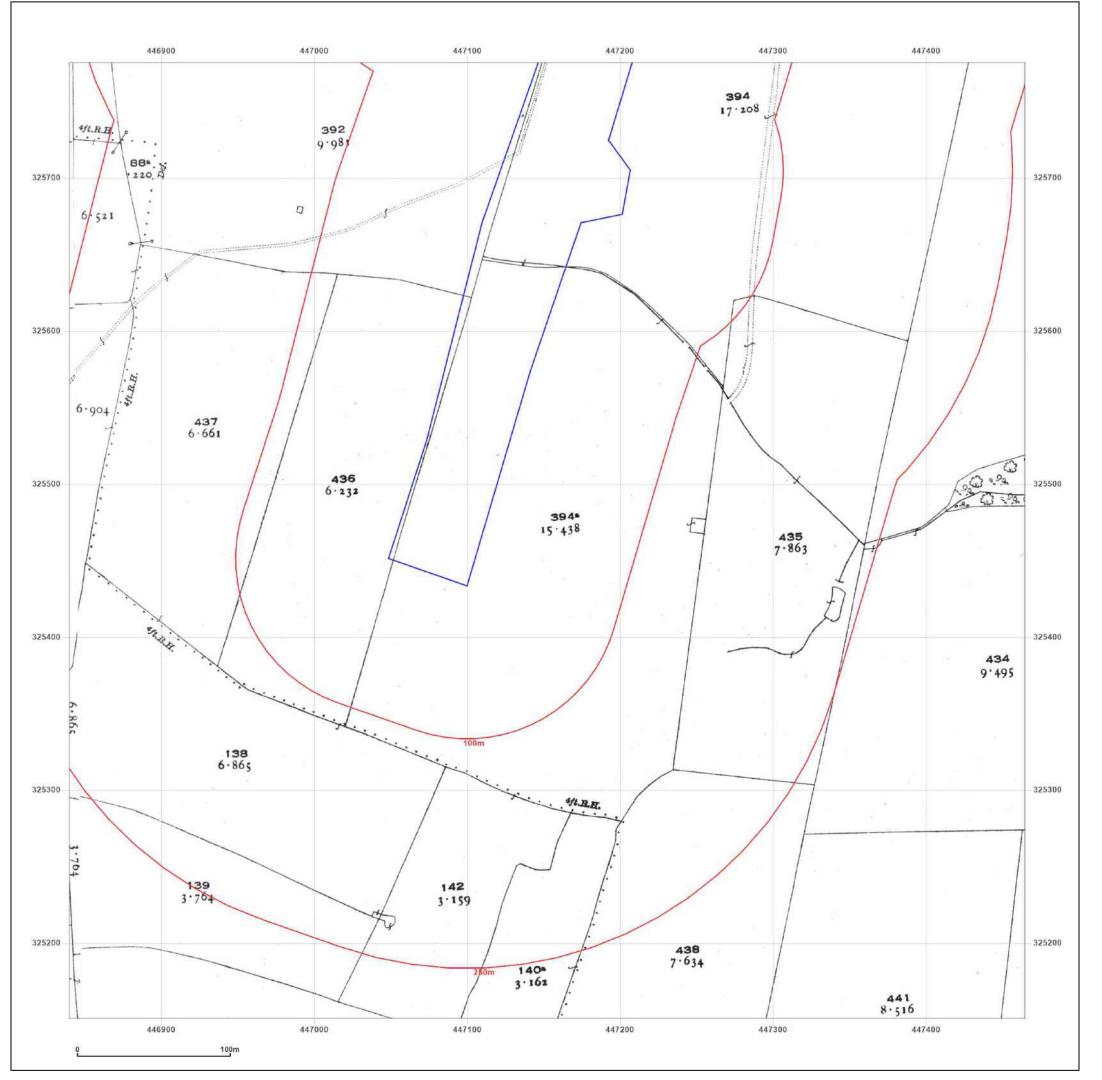




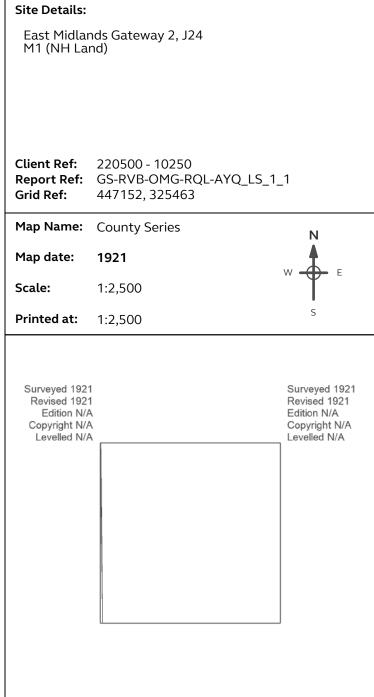
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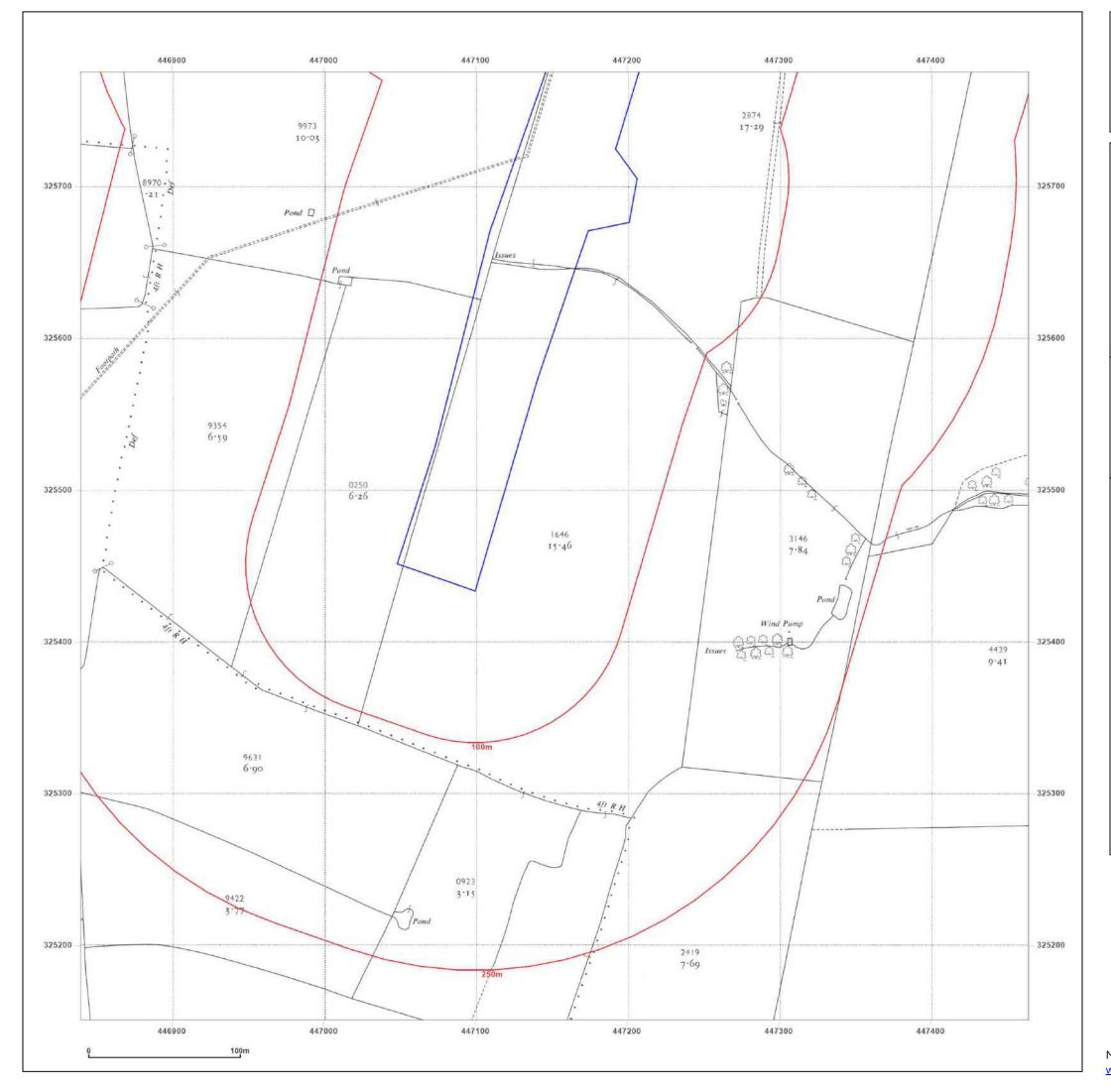




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Production date: 13 December 2024

Map legend available at:





East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_1 447152, 325463 **Grid Ref:**

Map Name: National Grid

1962 Map date:

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1961 Revised 1961 Edition N/A Copyright 1962 Levelled 1944

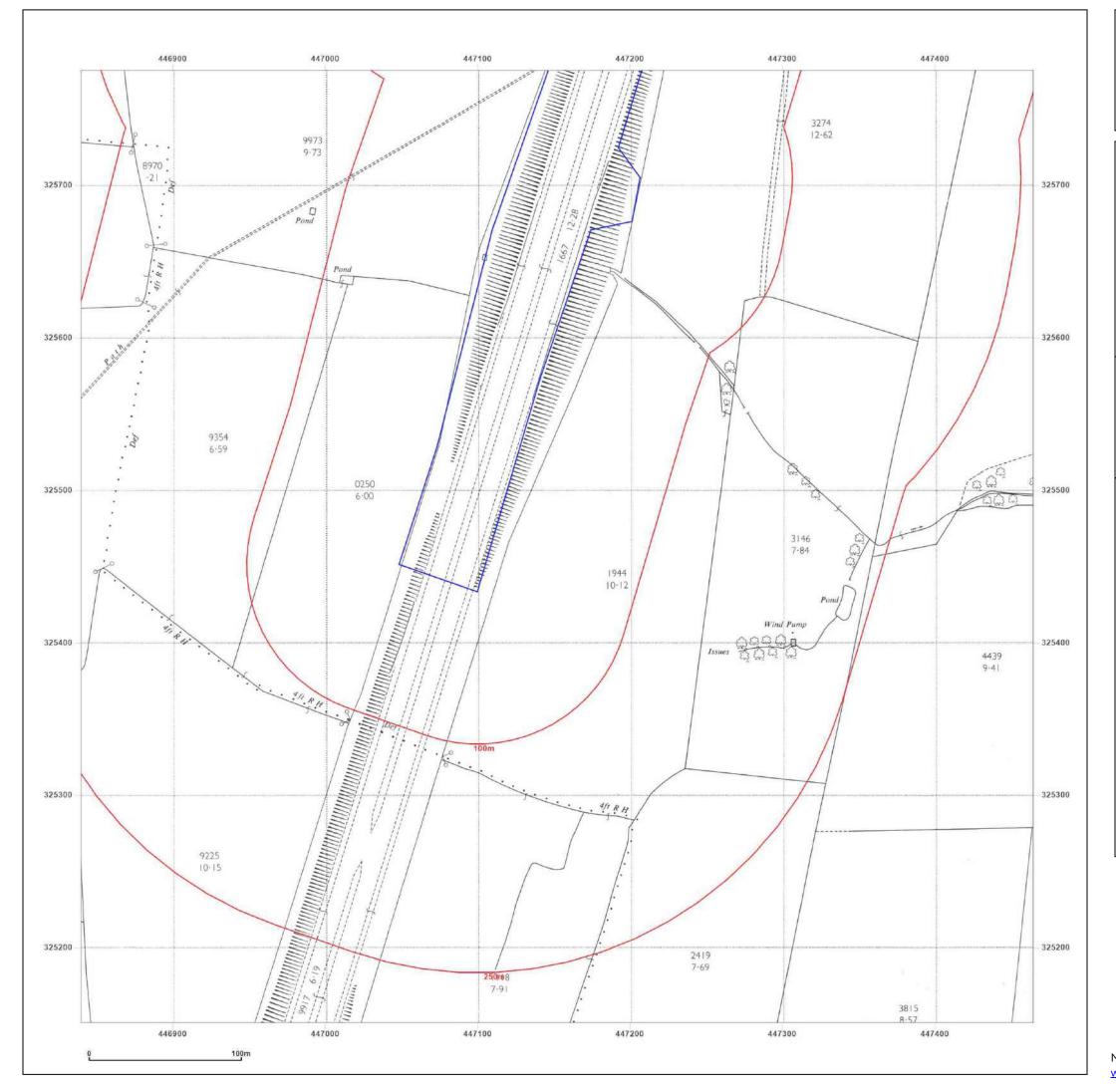


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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_1

Grid Ref: 447152, 325463

Map Name: National Grid

Map date: 1967

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1966 Revised 1966 Edition N/A Copyright 1967 Levelled 1944

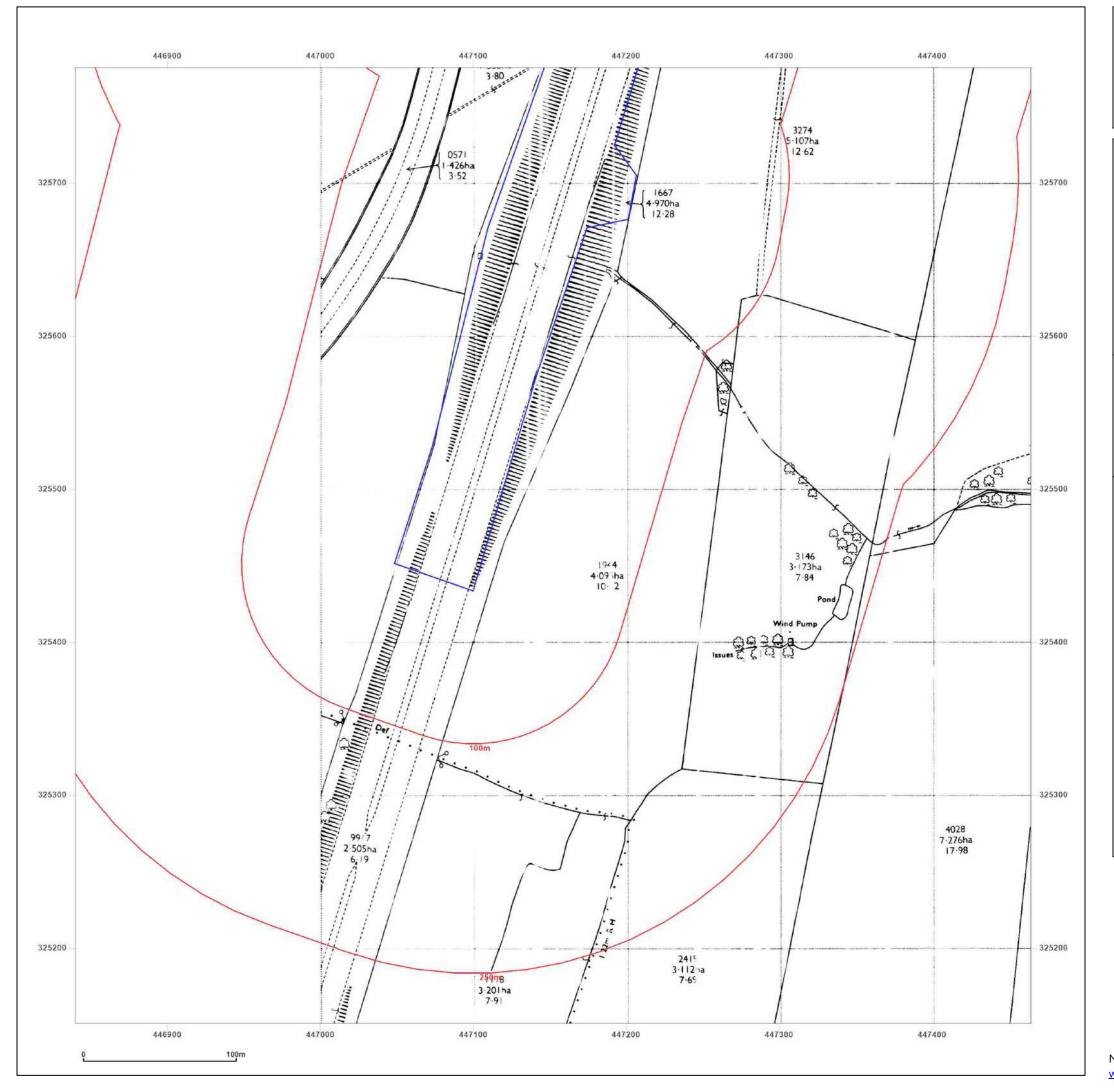


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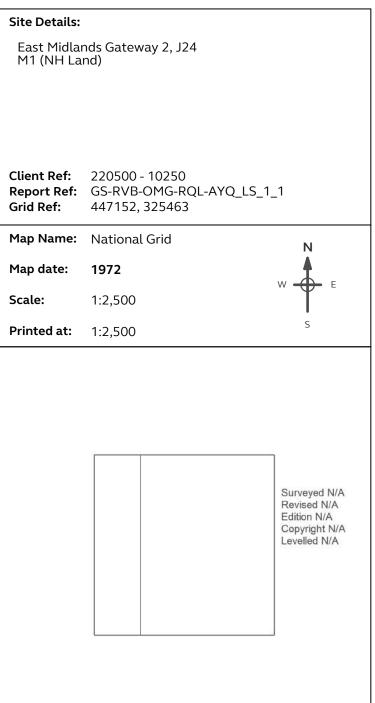
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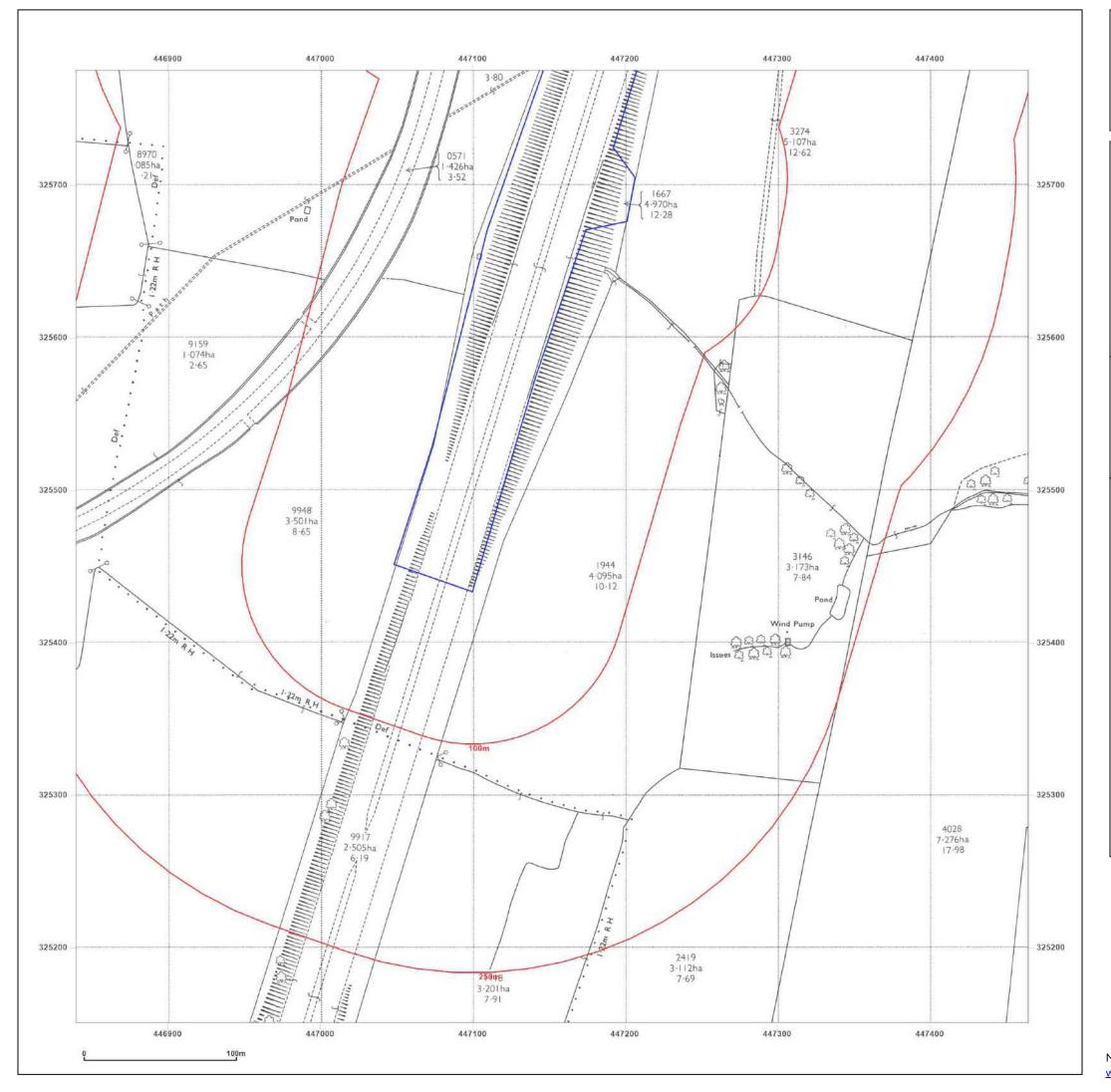




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East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_1

447152, 325463 **Grid Ref:**

Map Name: National Grid

1972 Map date:

1:2,500 Scale:

Printed at: 1:2,500

Surveyed 1971 Revised 1971 Edition N/A Copyright 1972 Levelled 1966

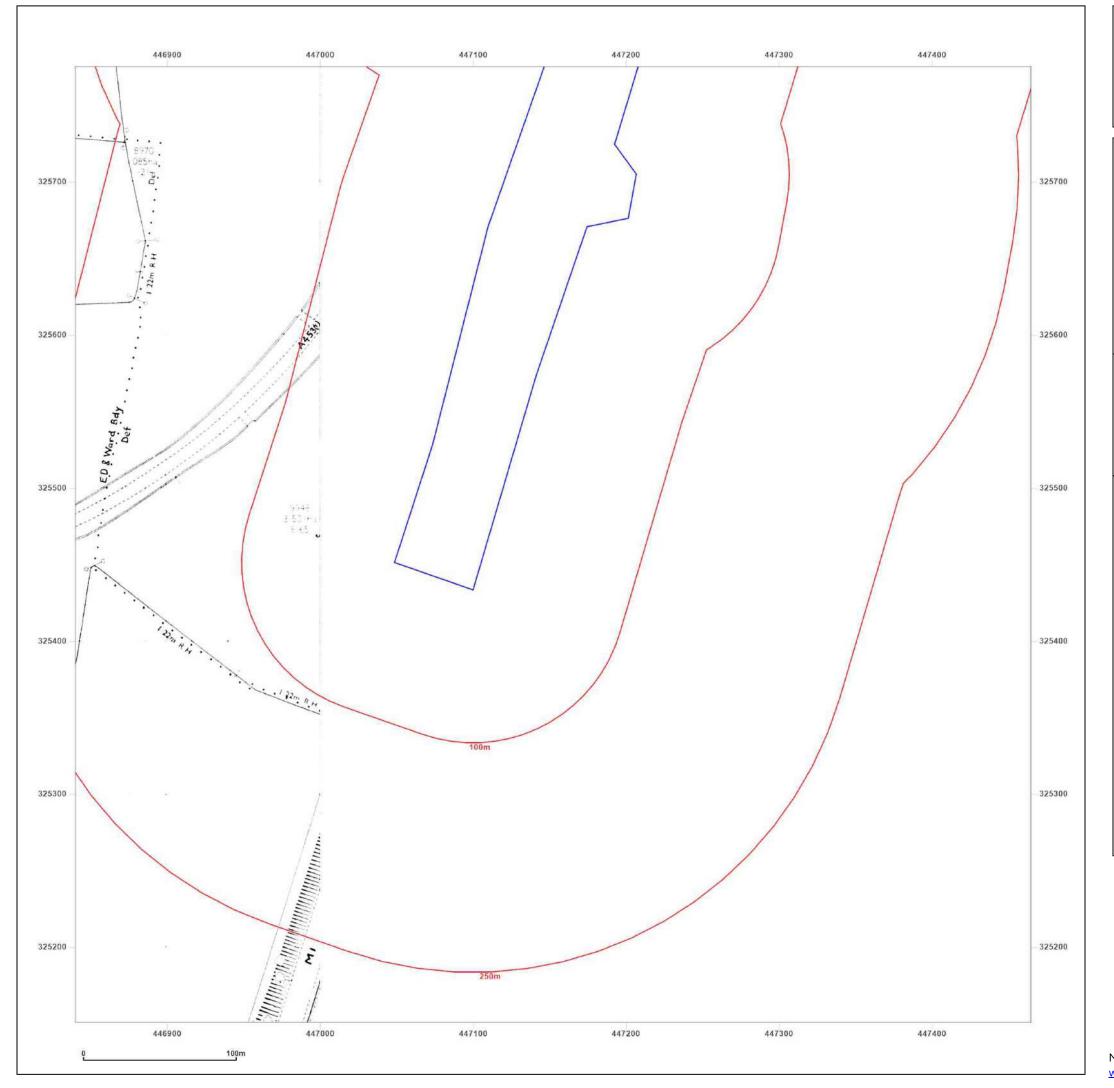


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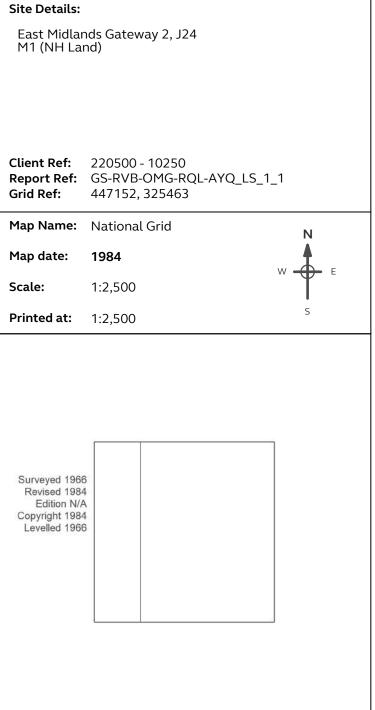
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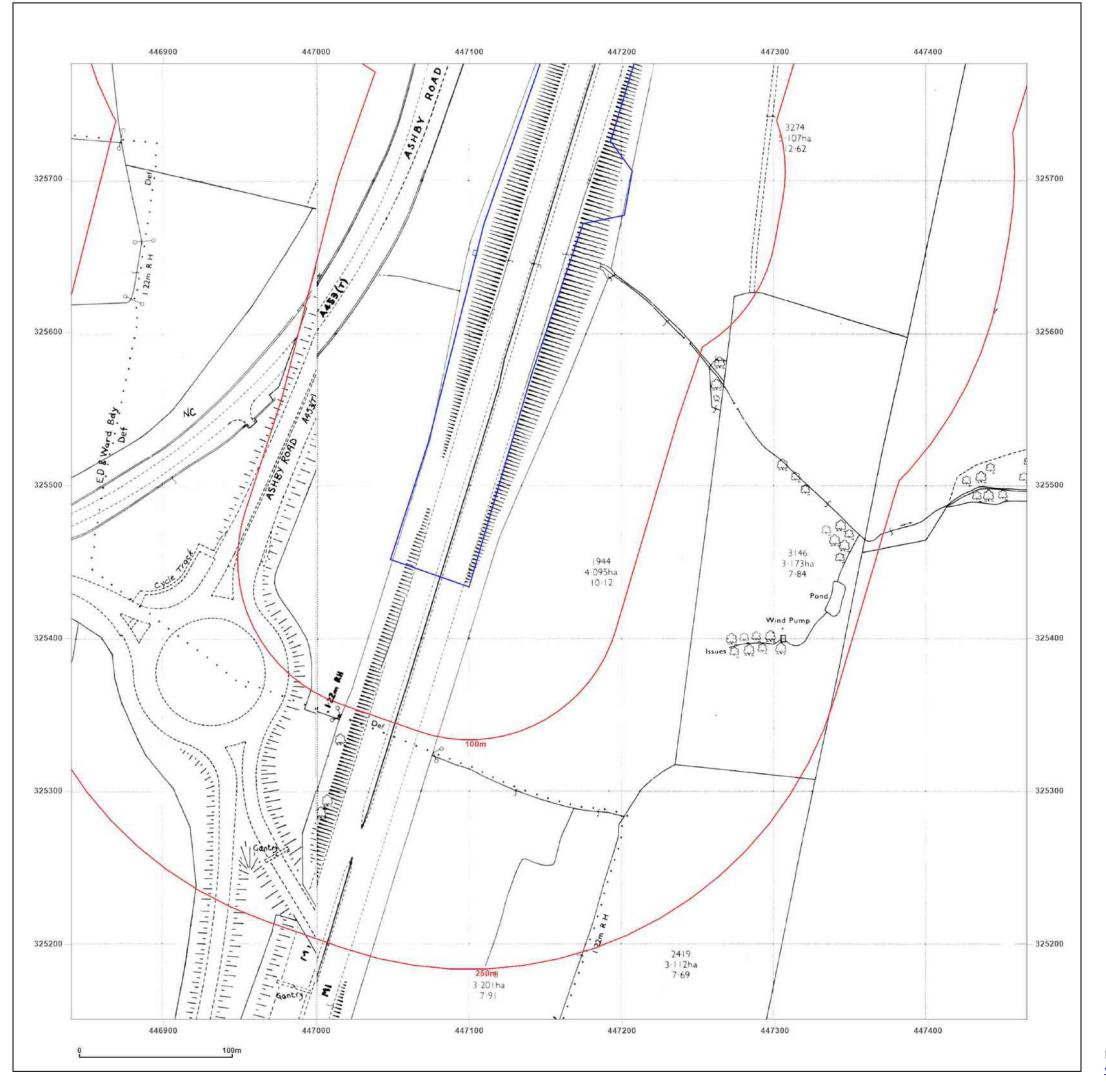




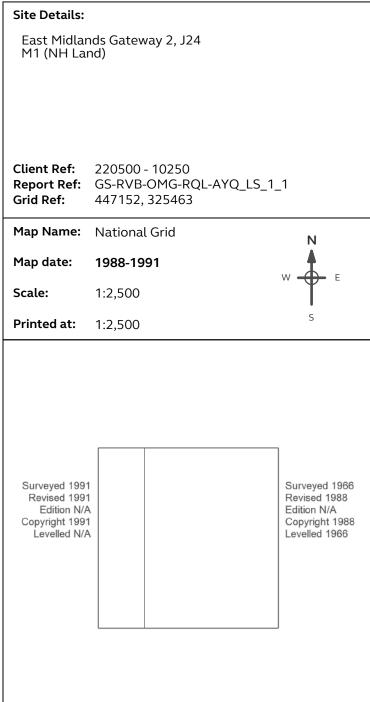
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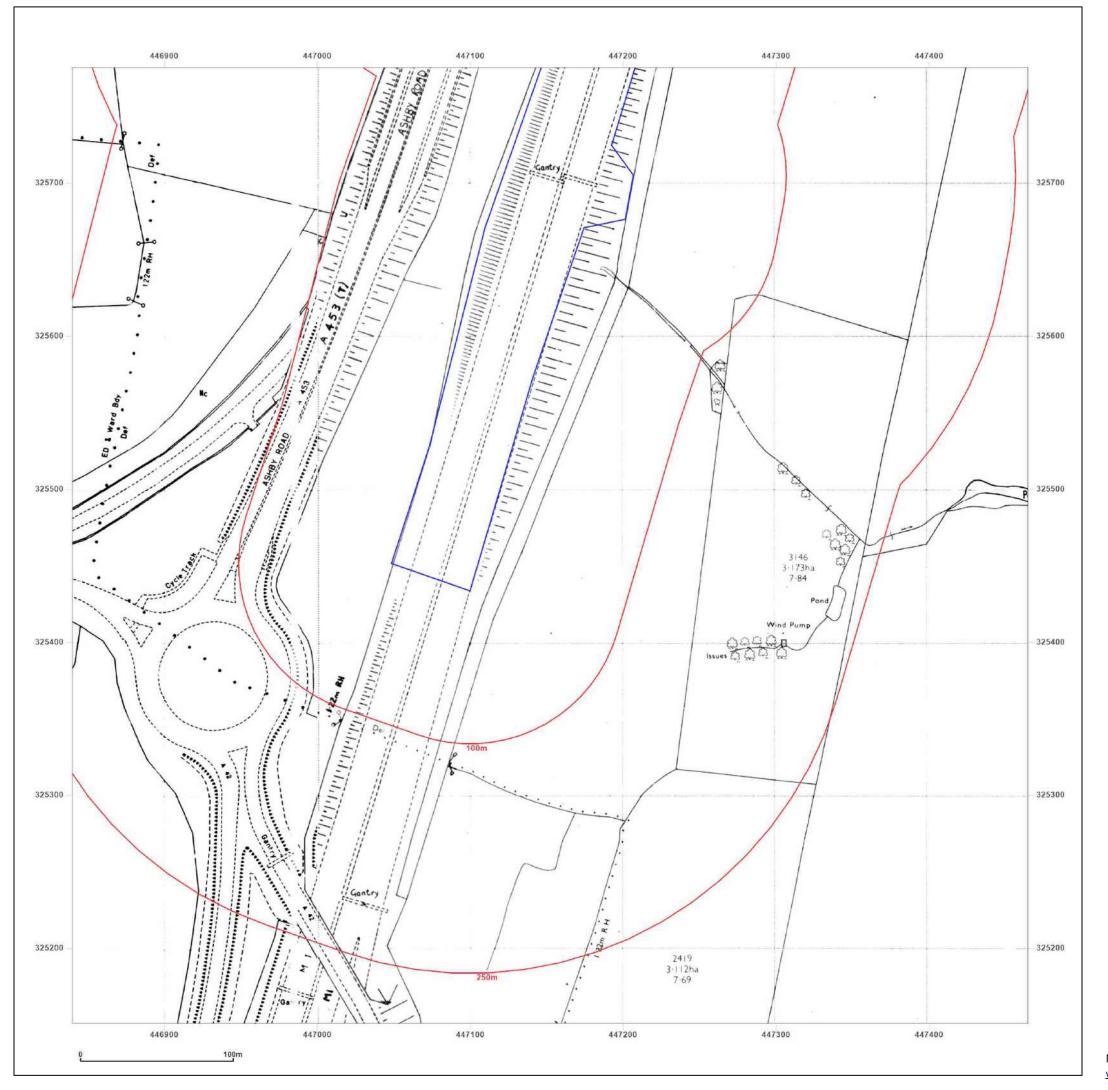




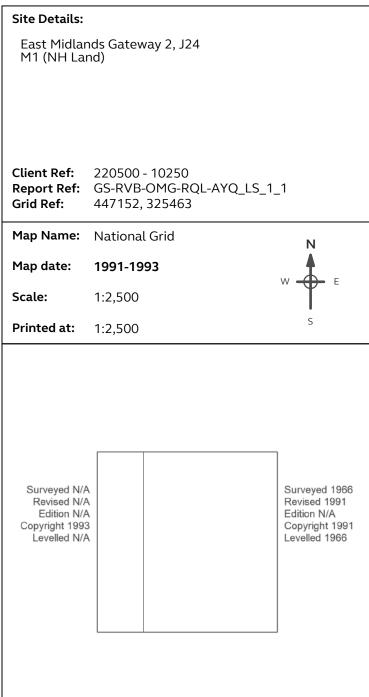
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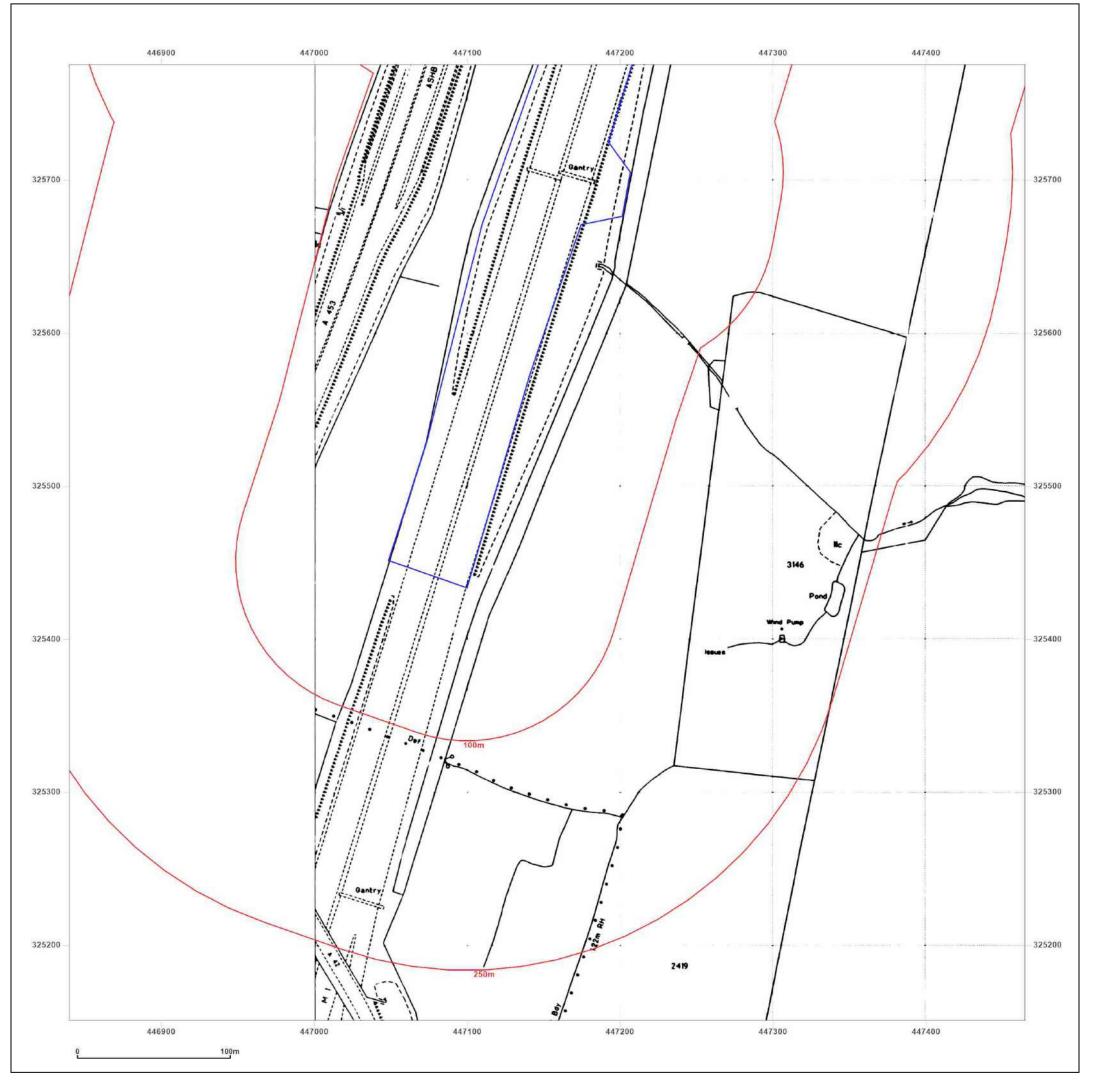




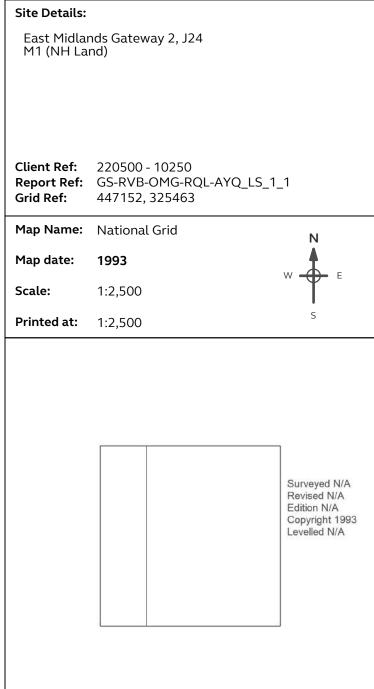
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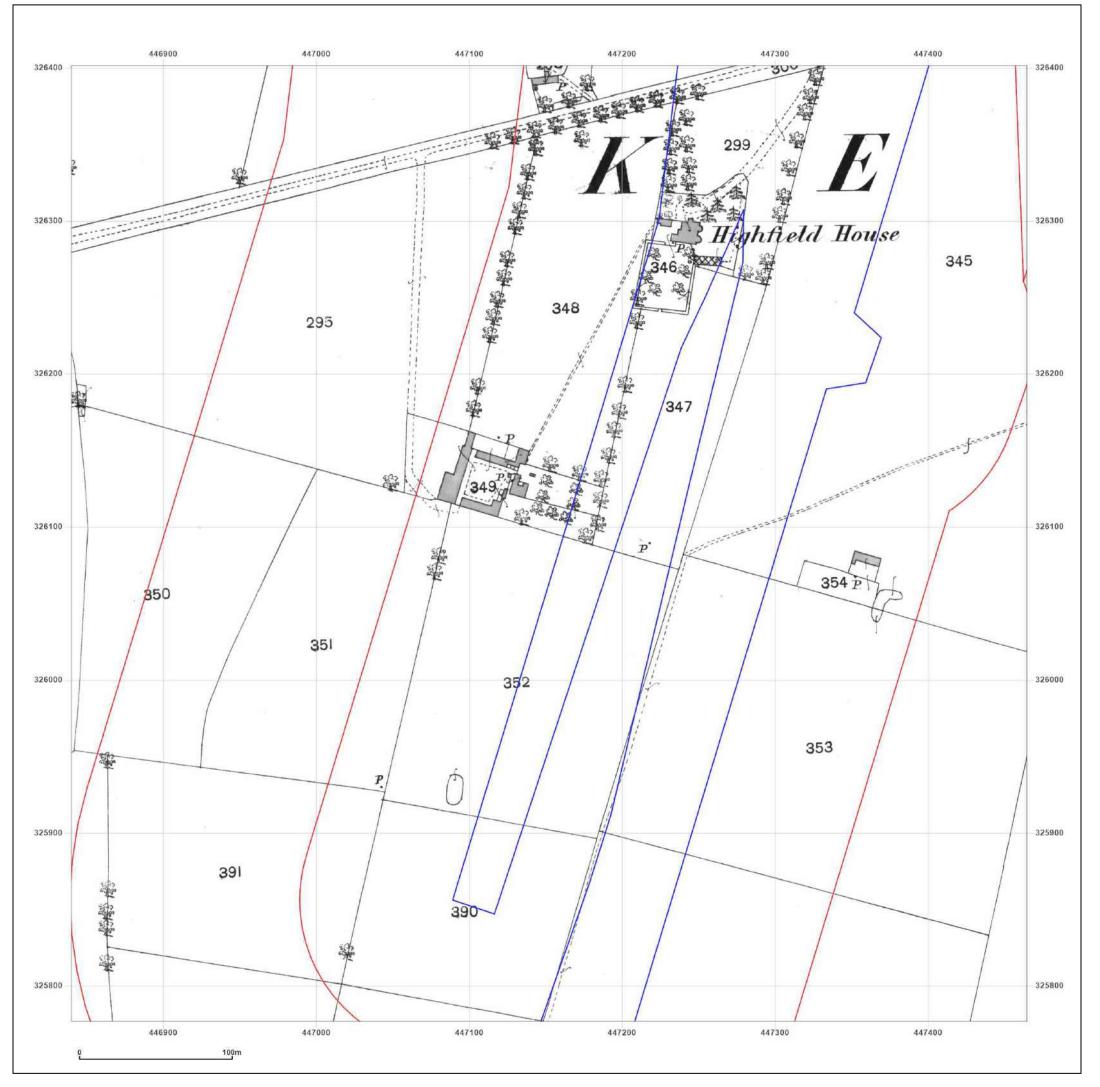




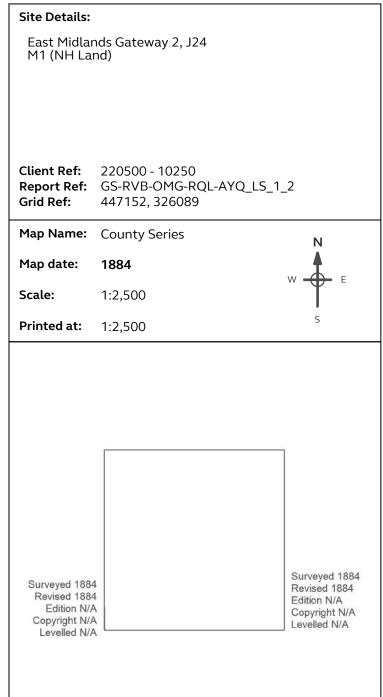
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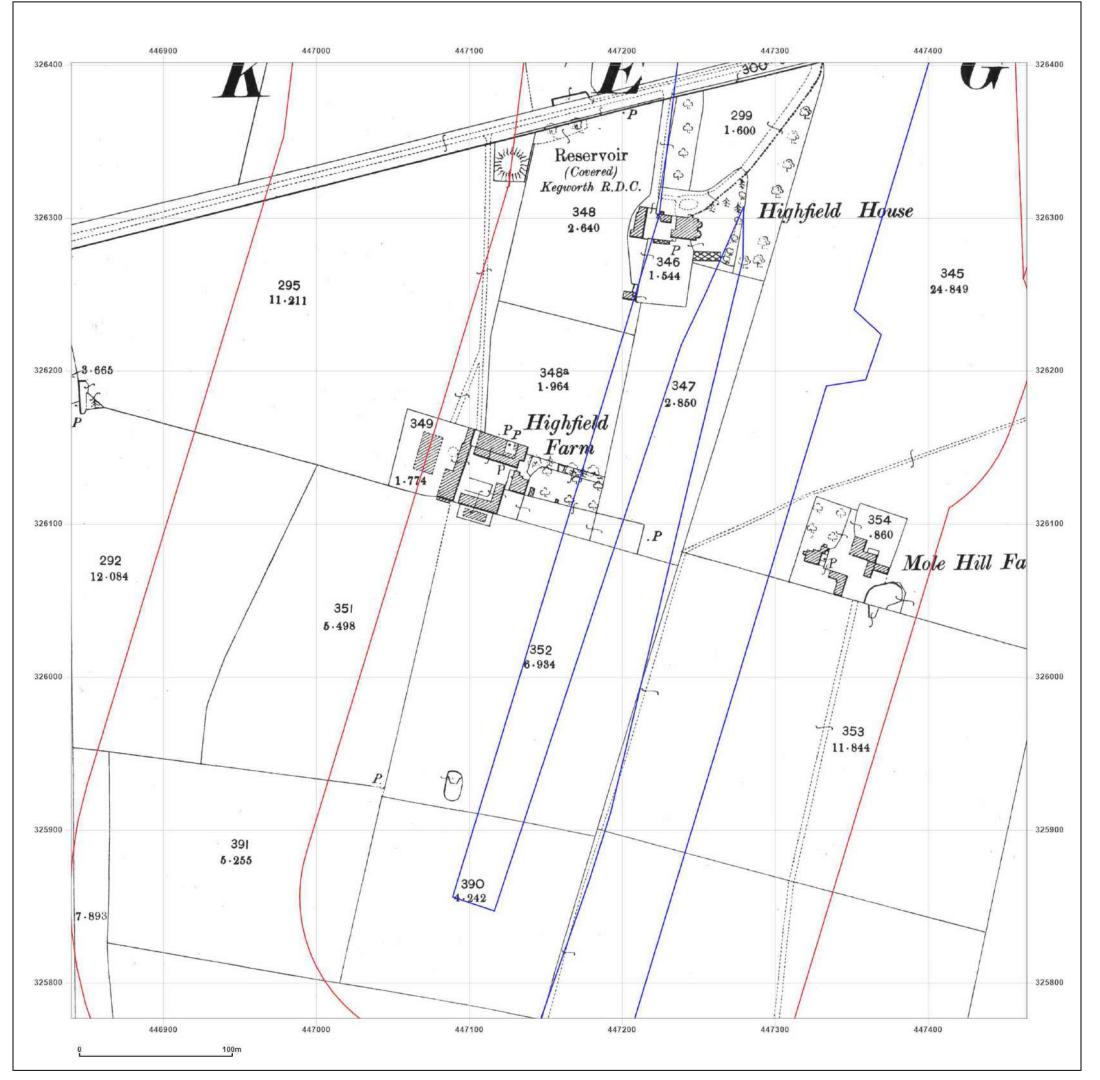




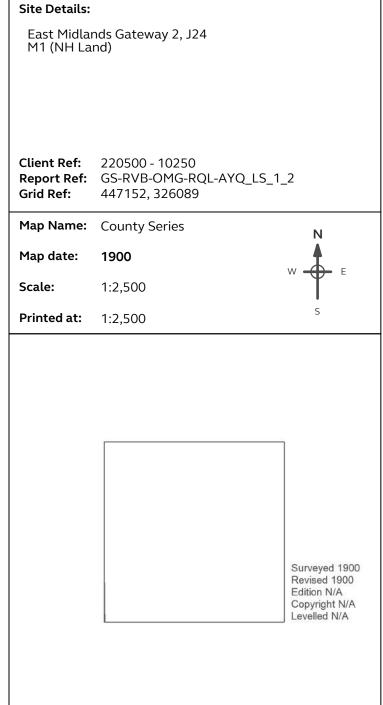
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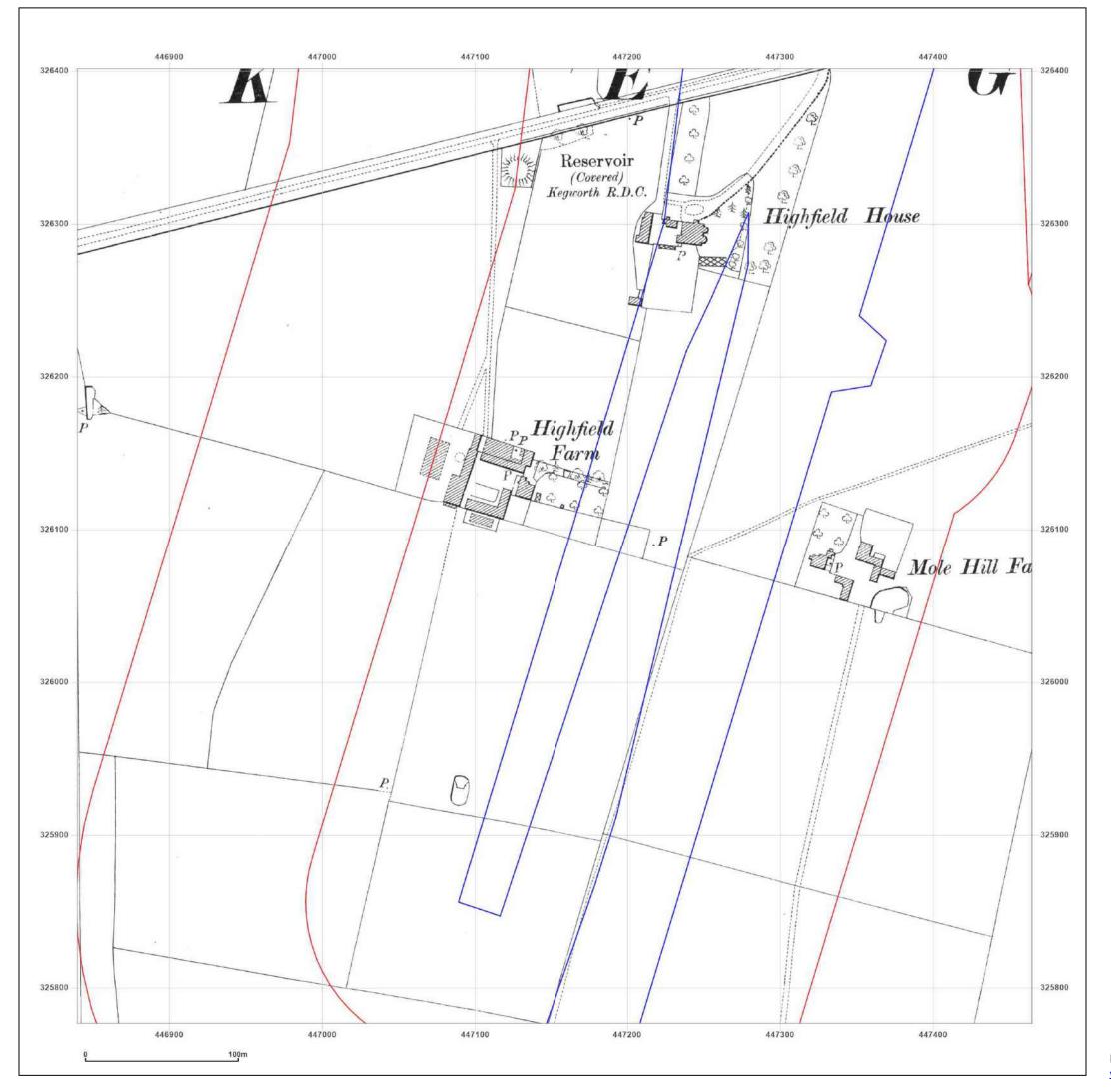




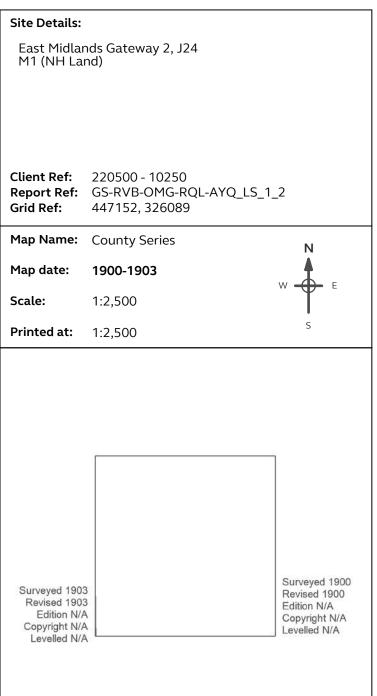
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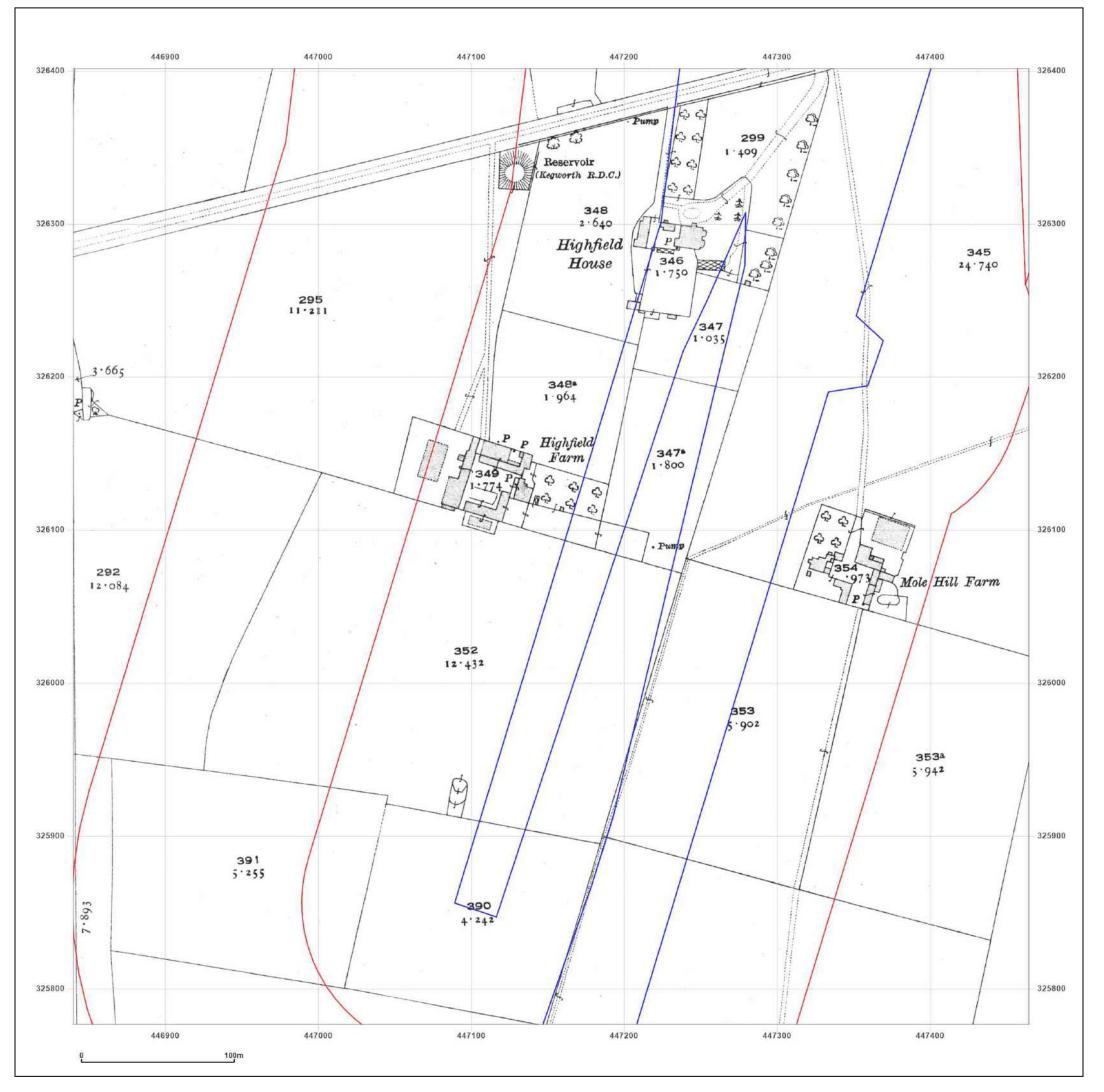




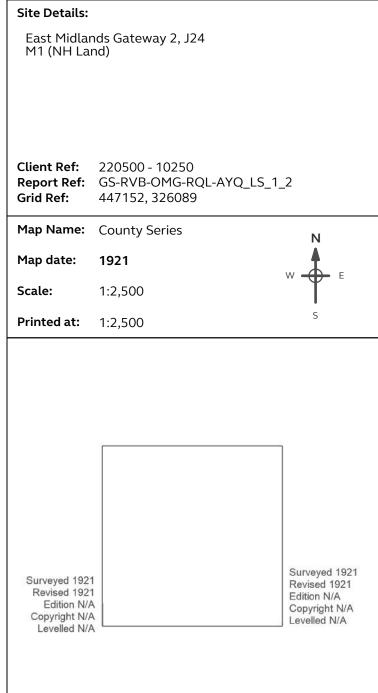
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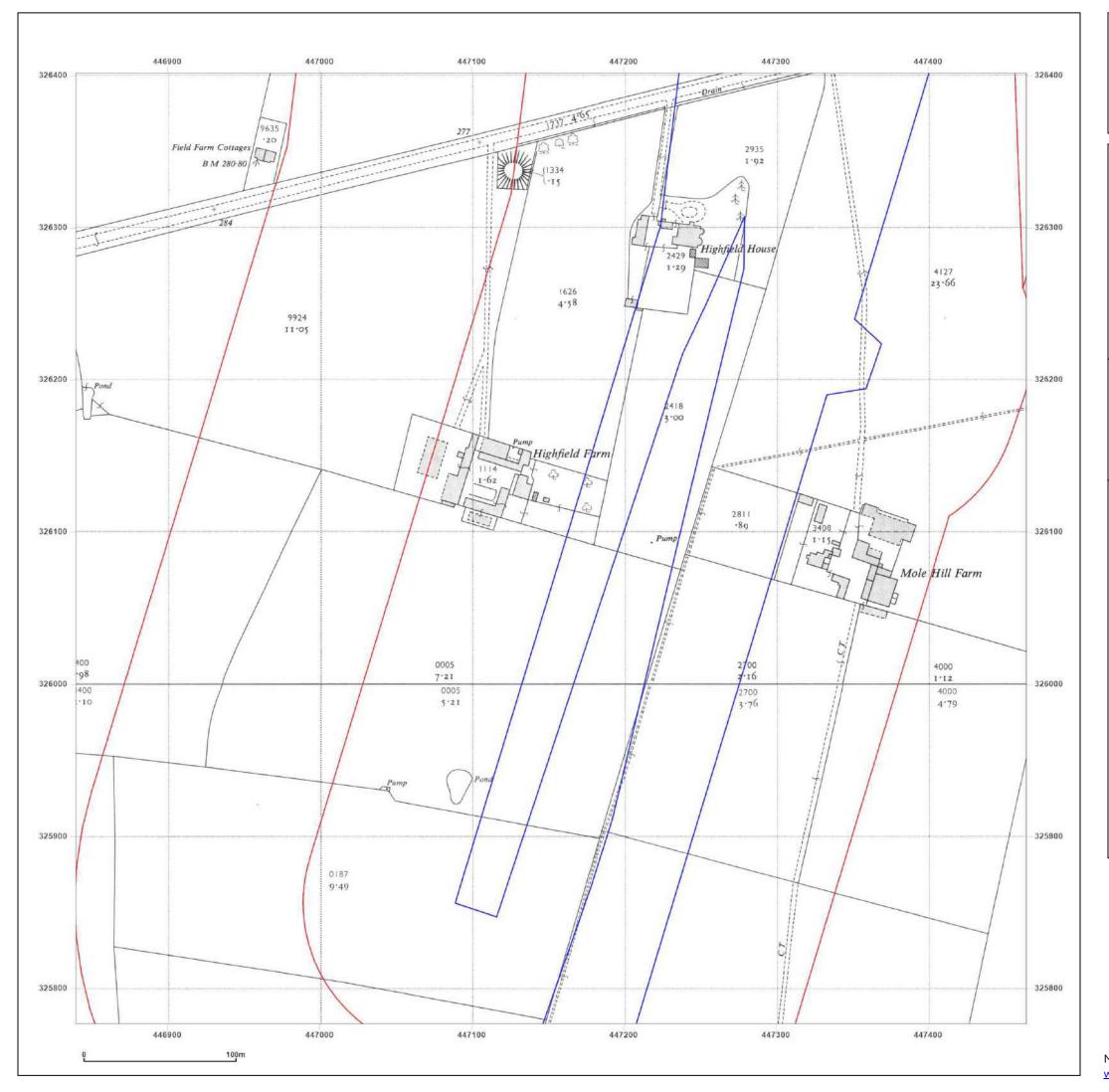




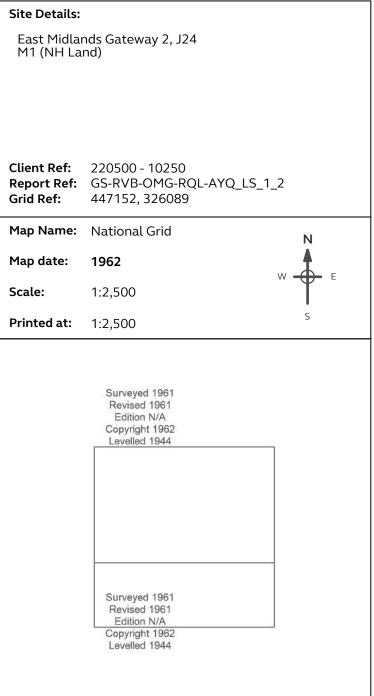
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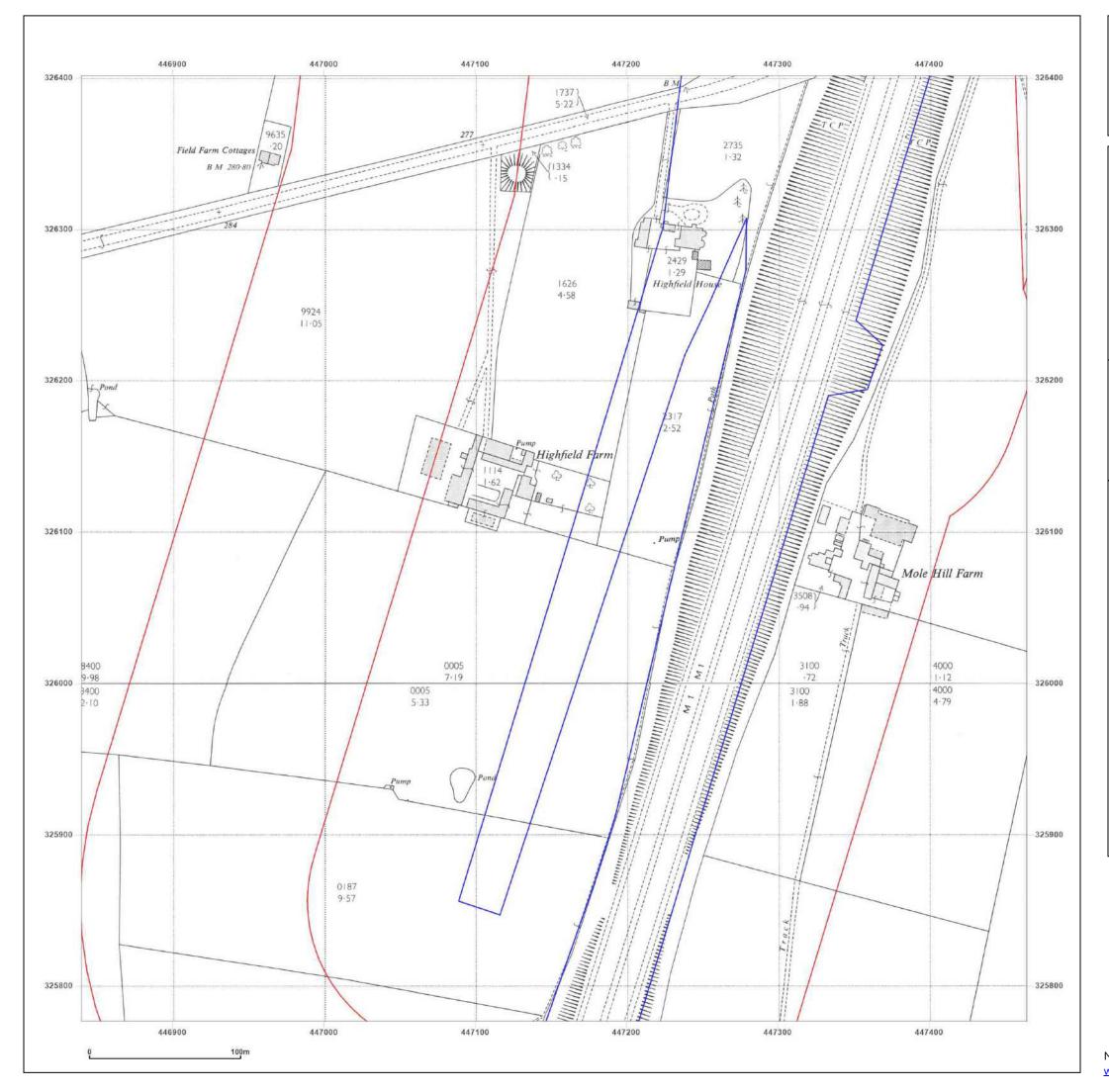




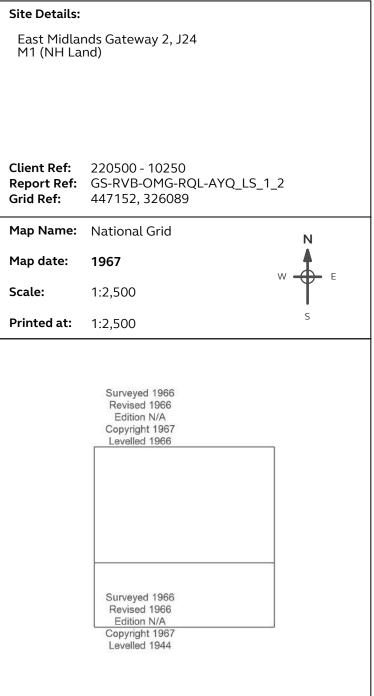
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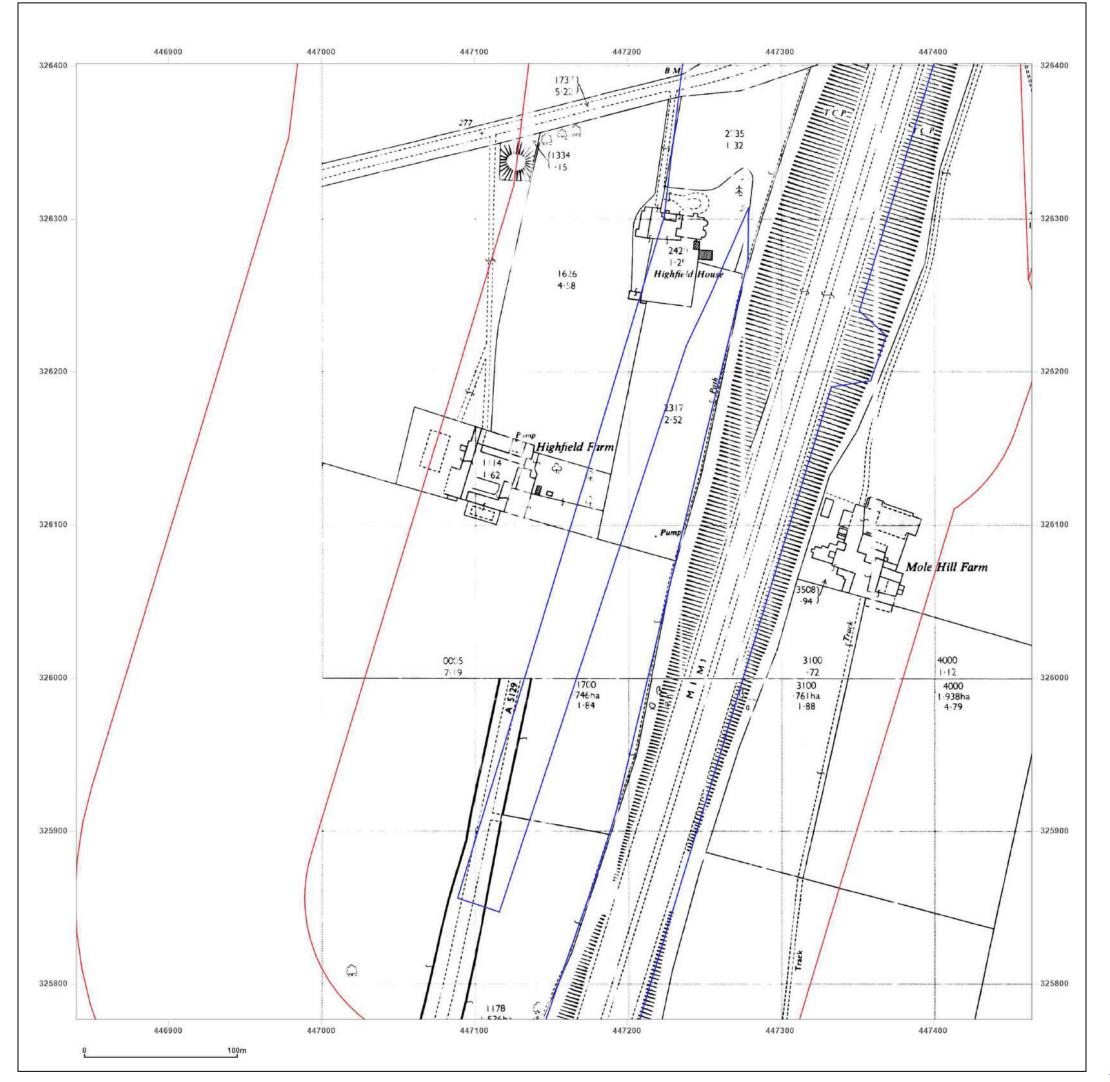




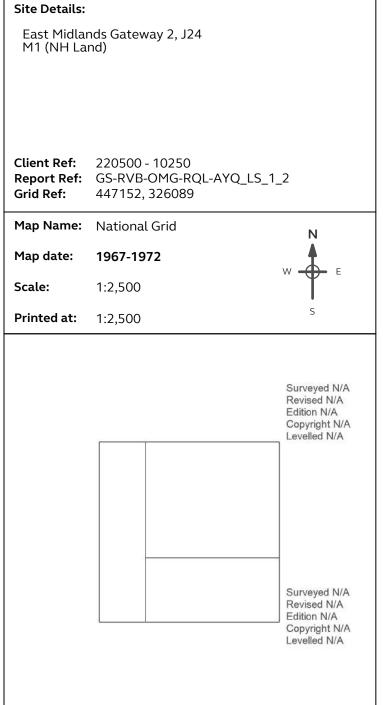
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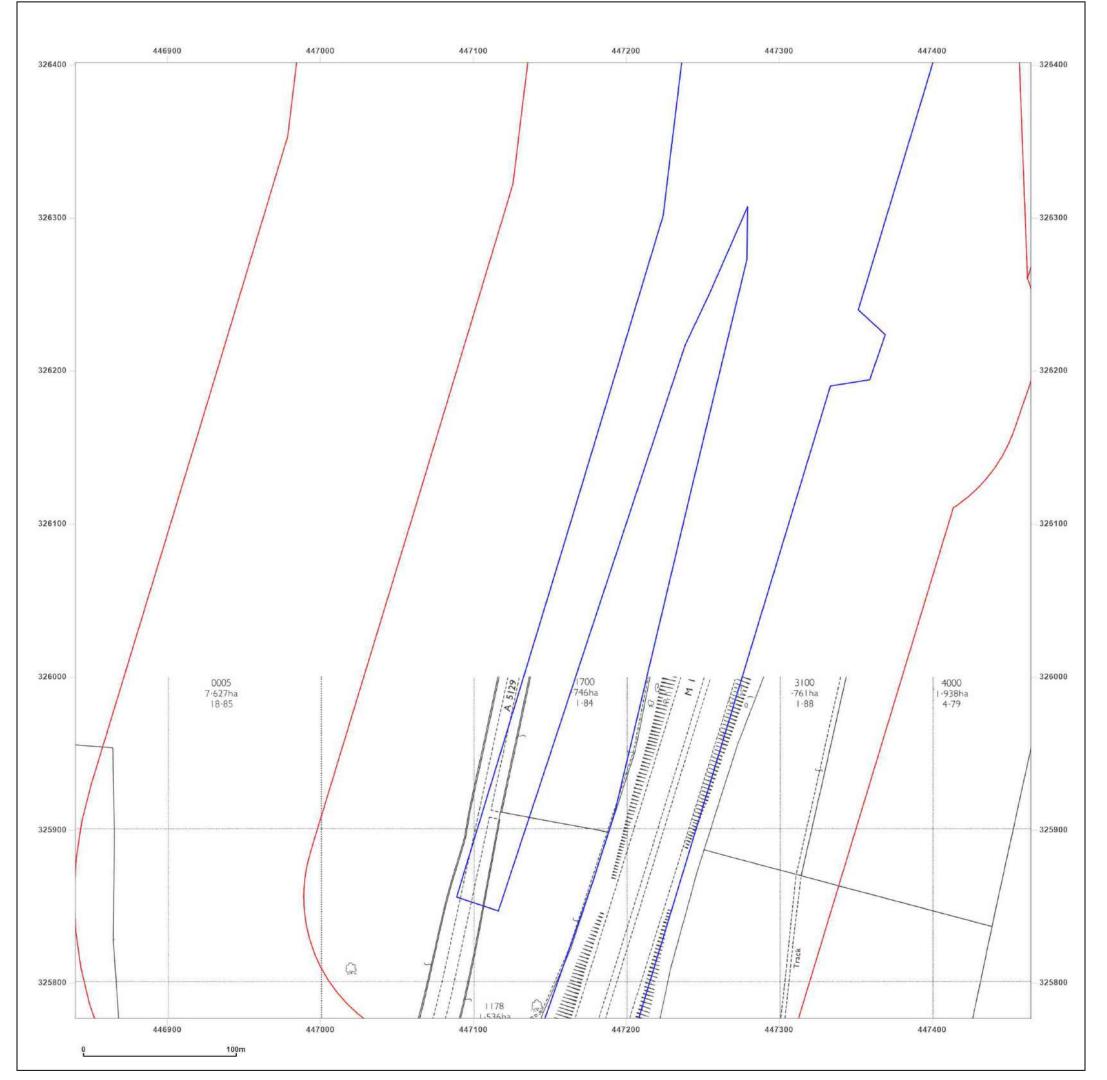




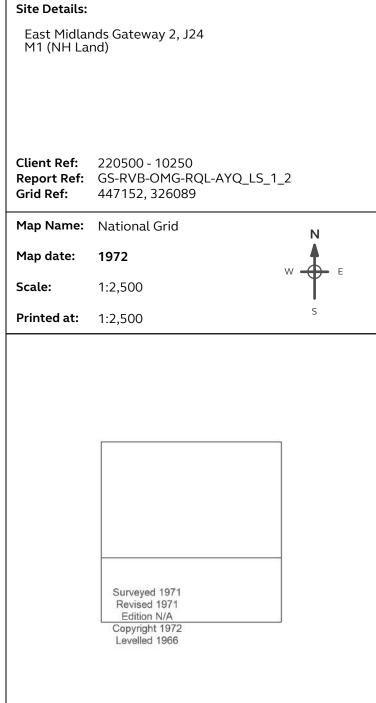
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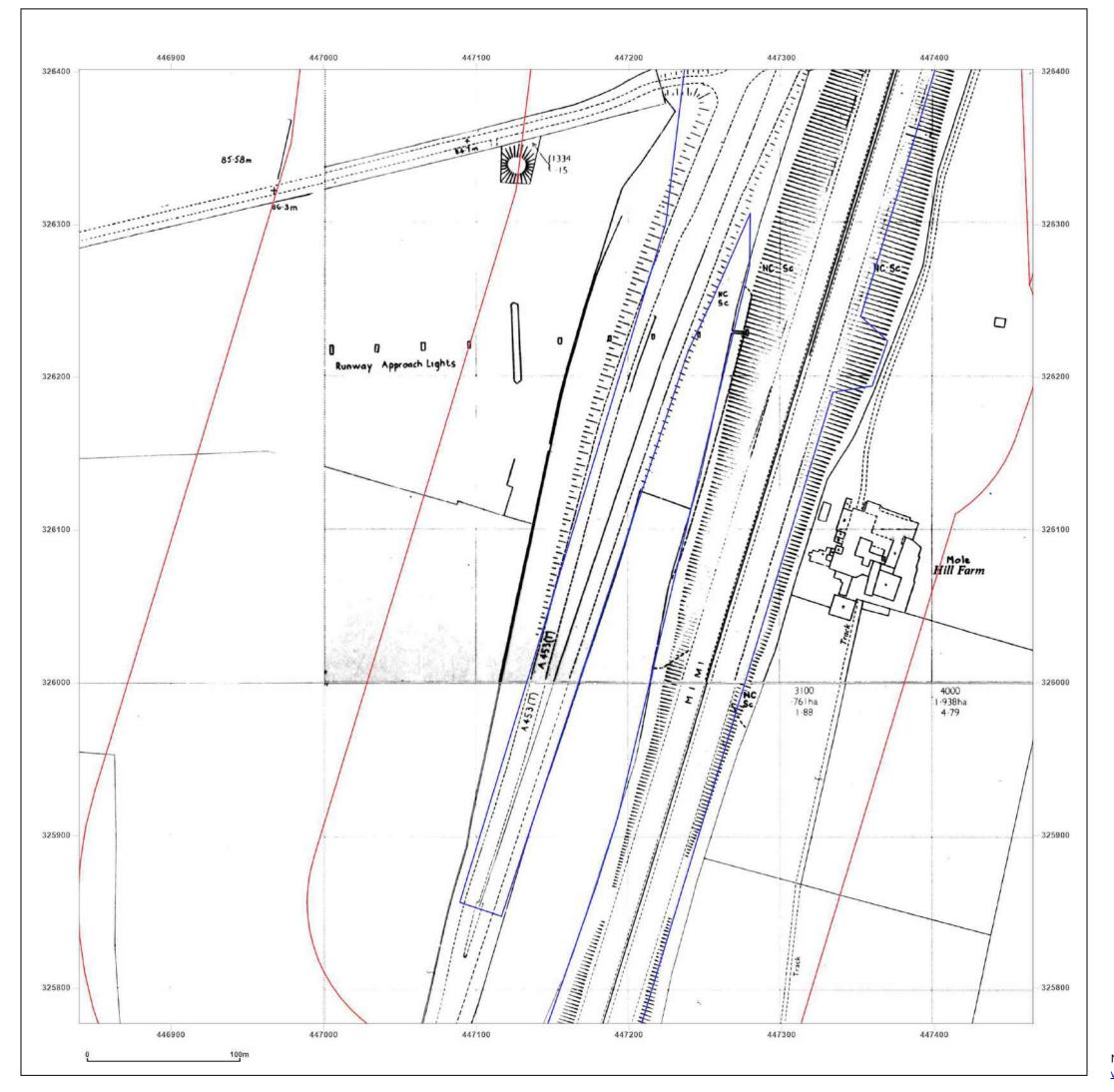




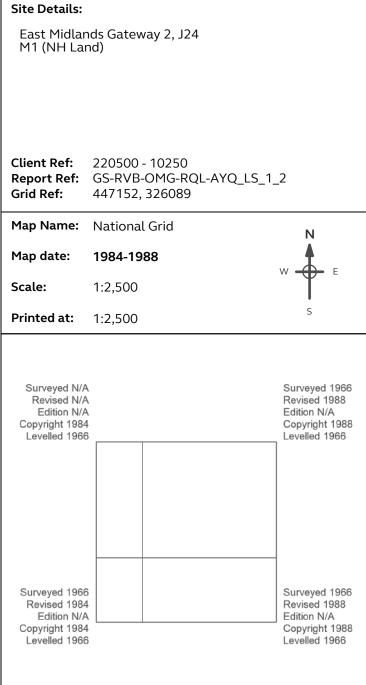
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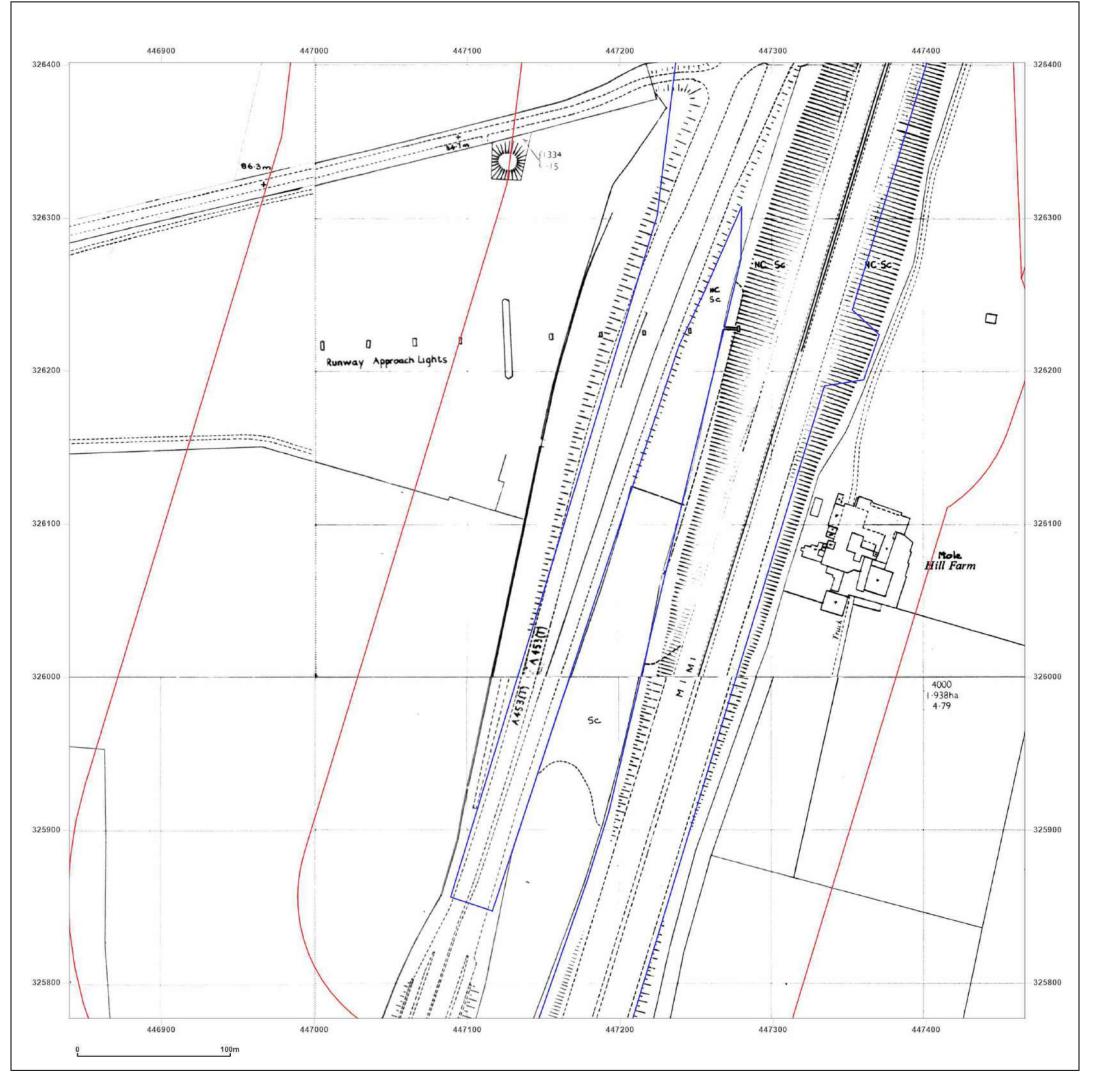




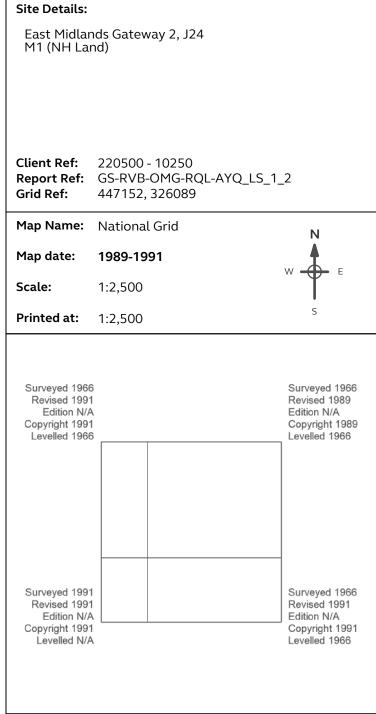
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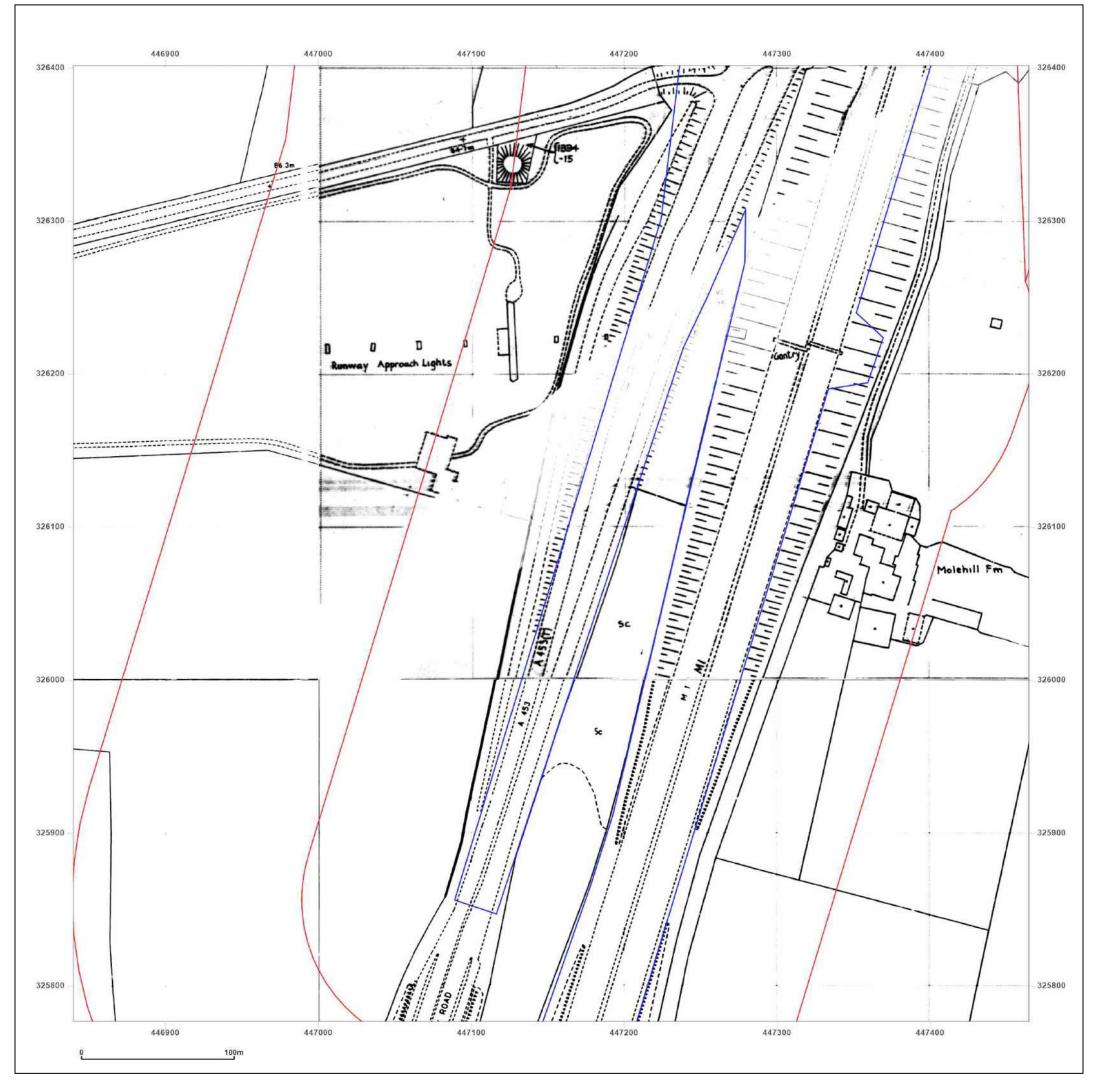




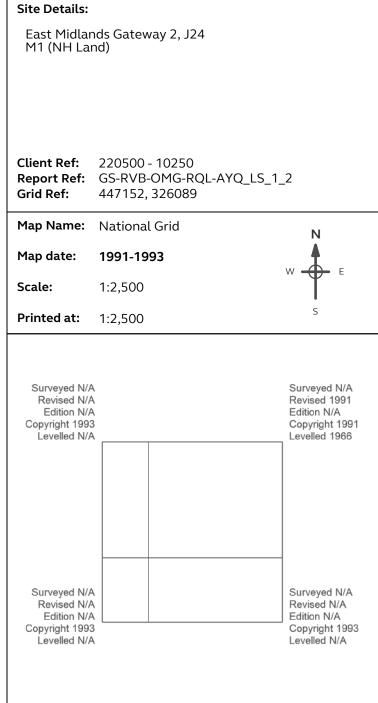
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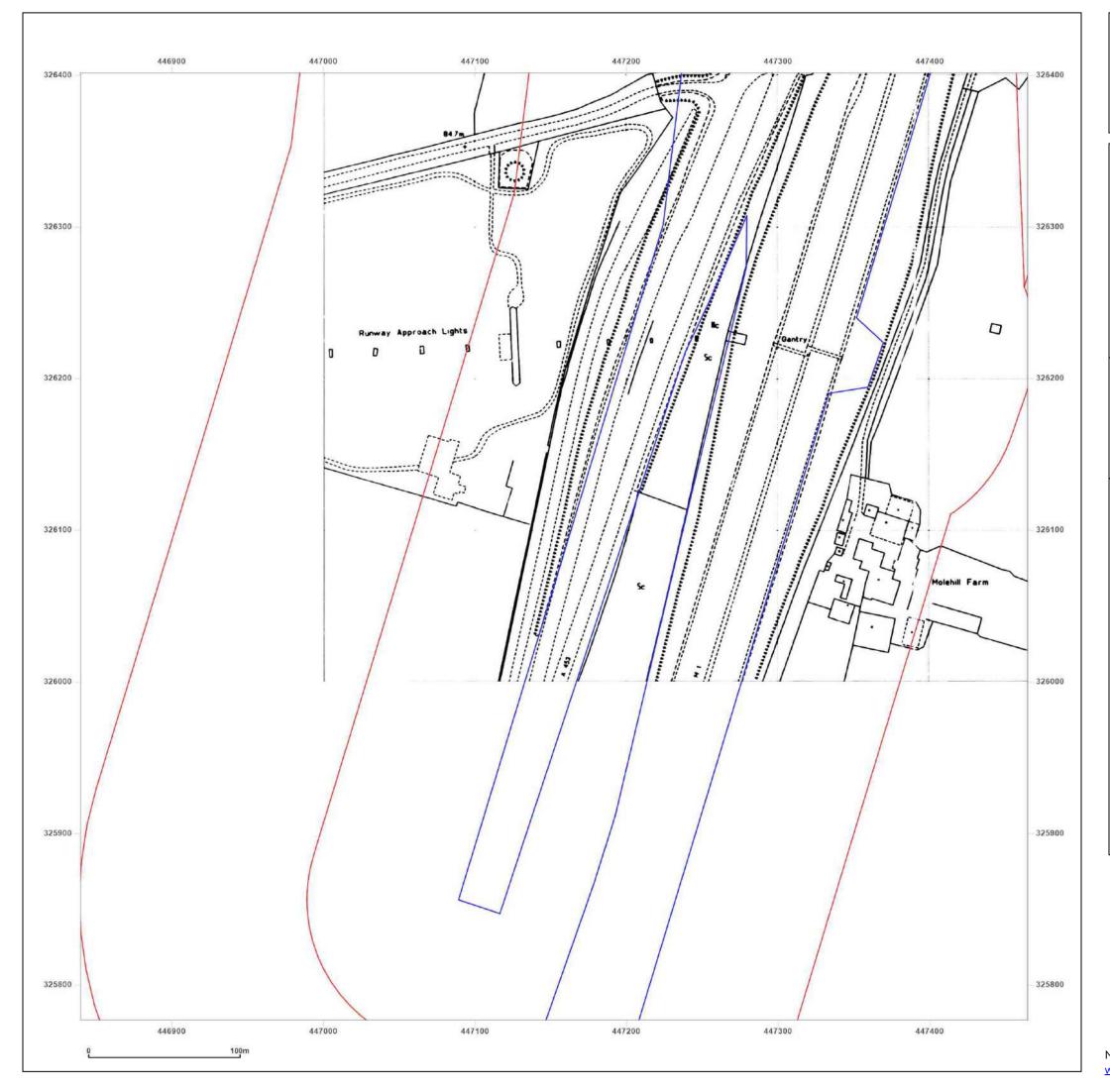




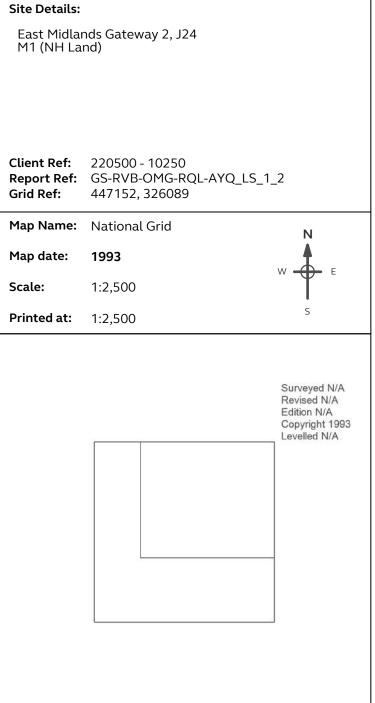
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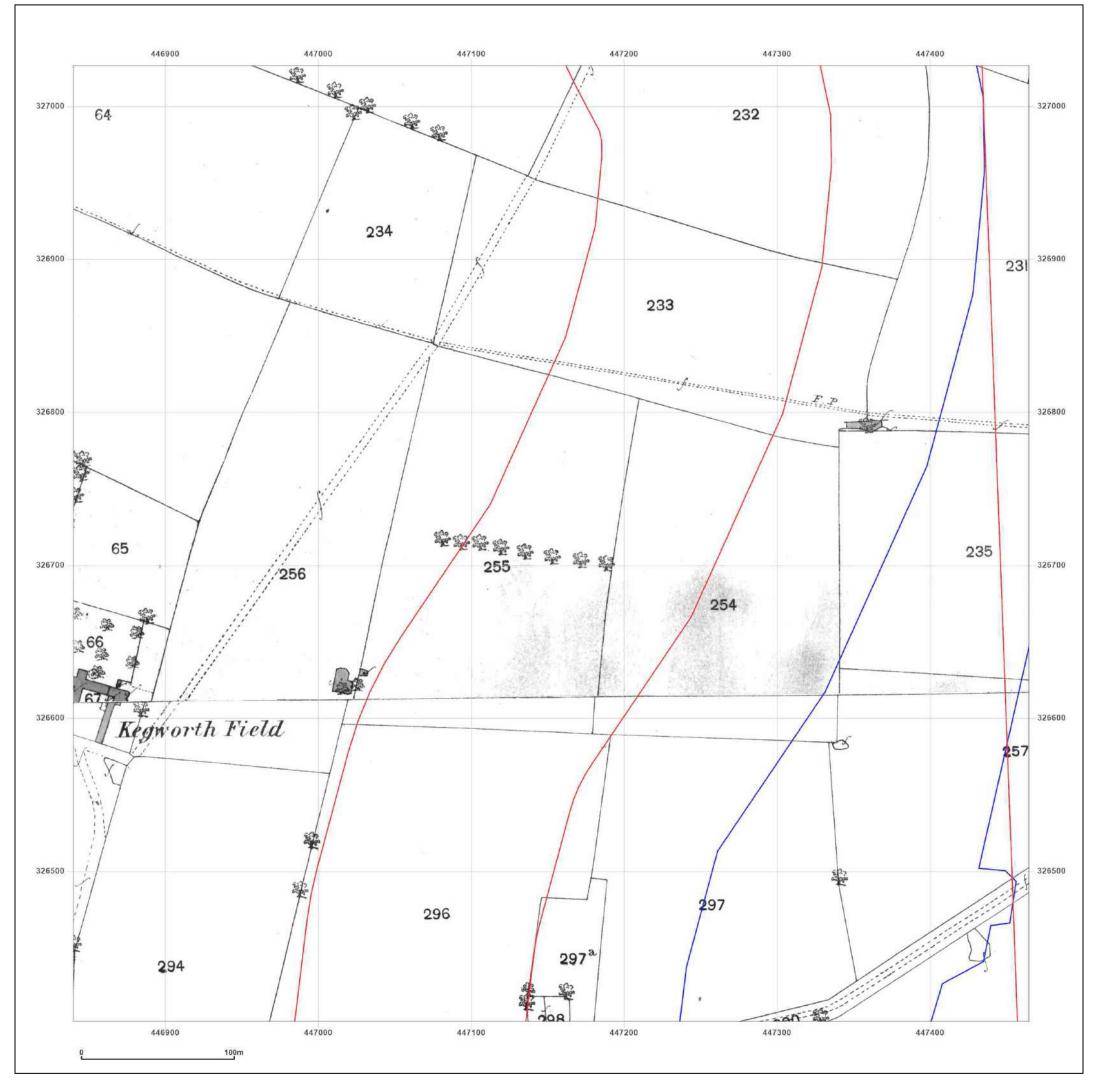




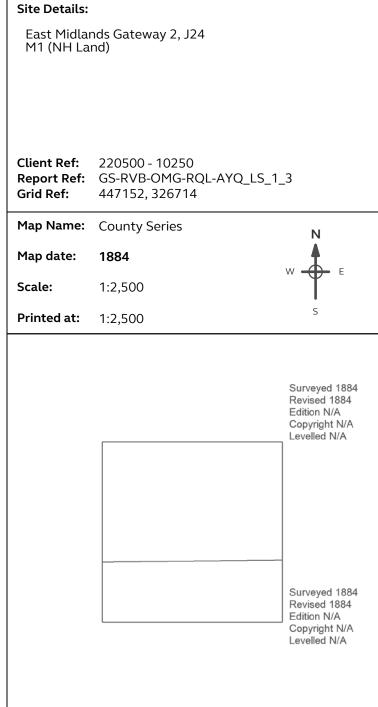
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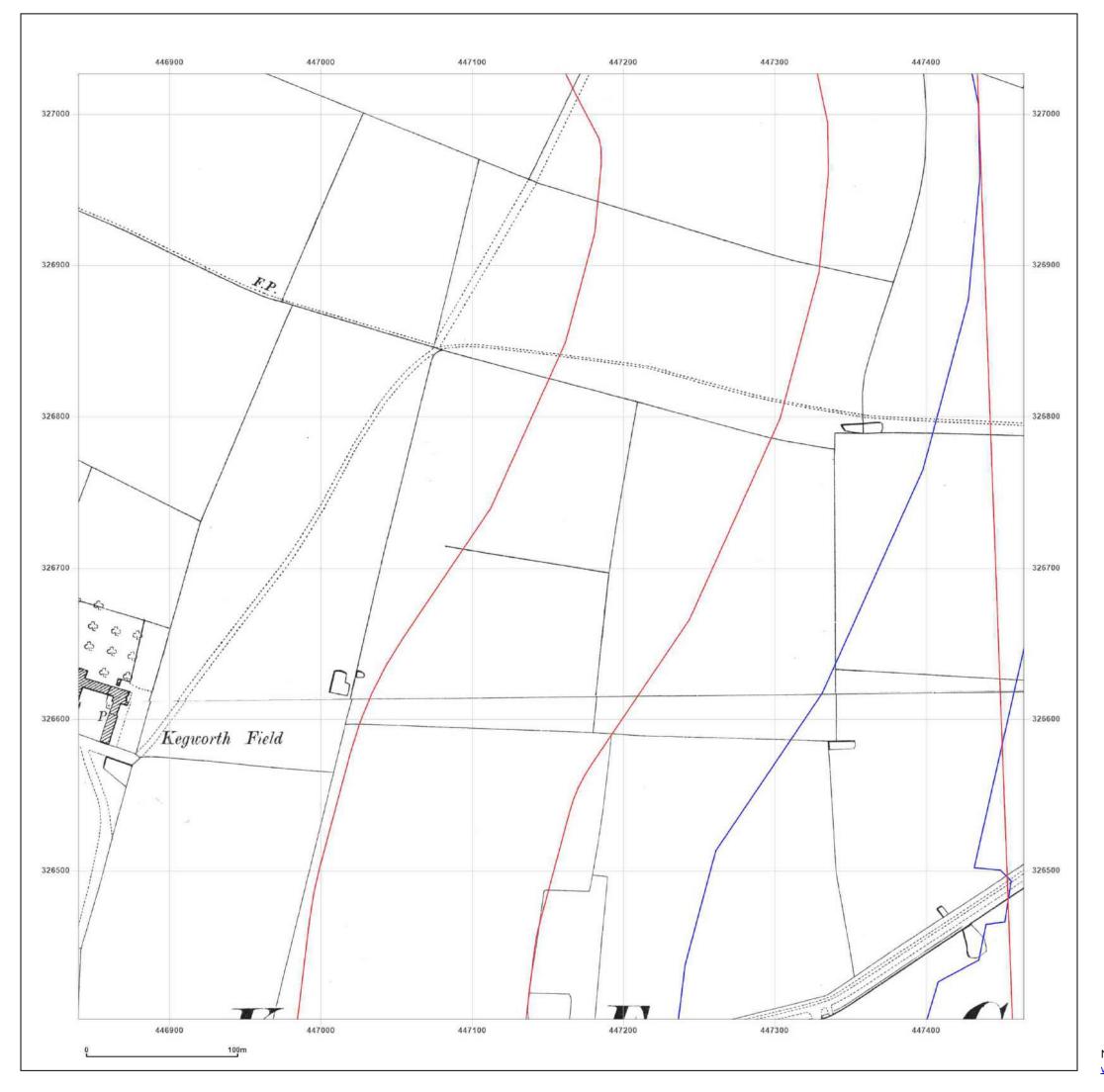




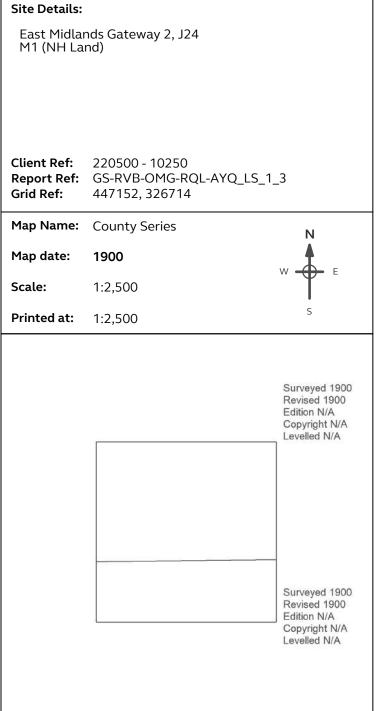
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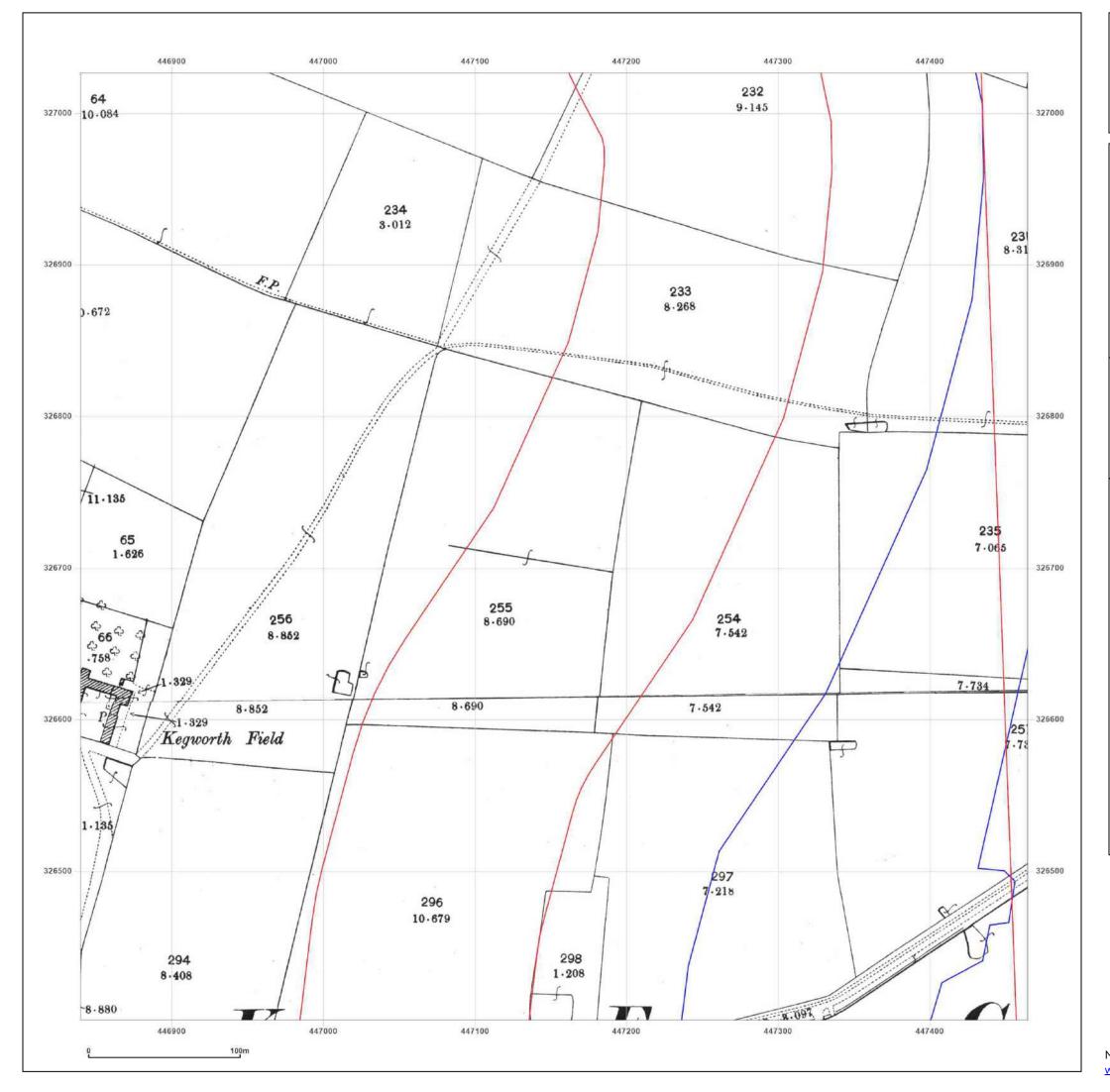




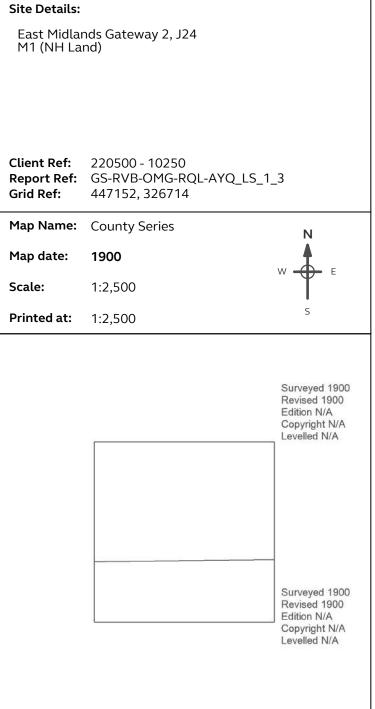
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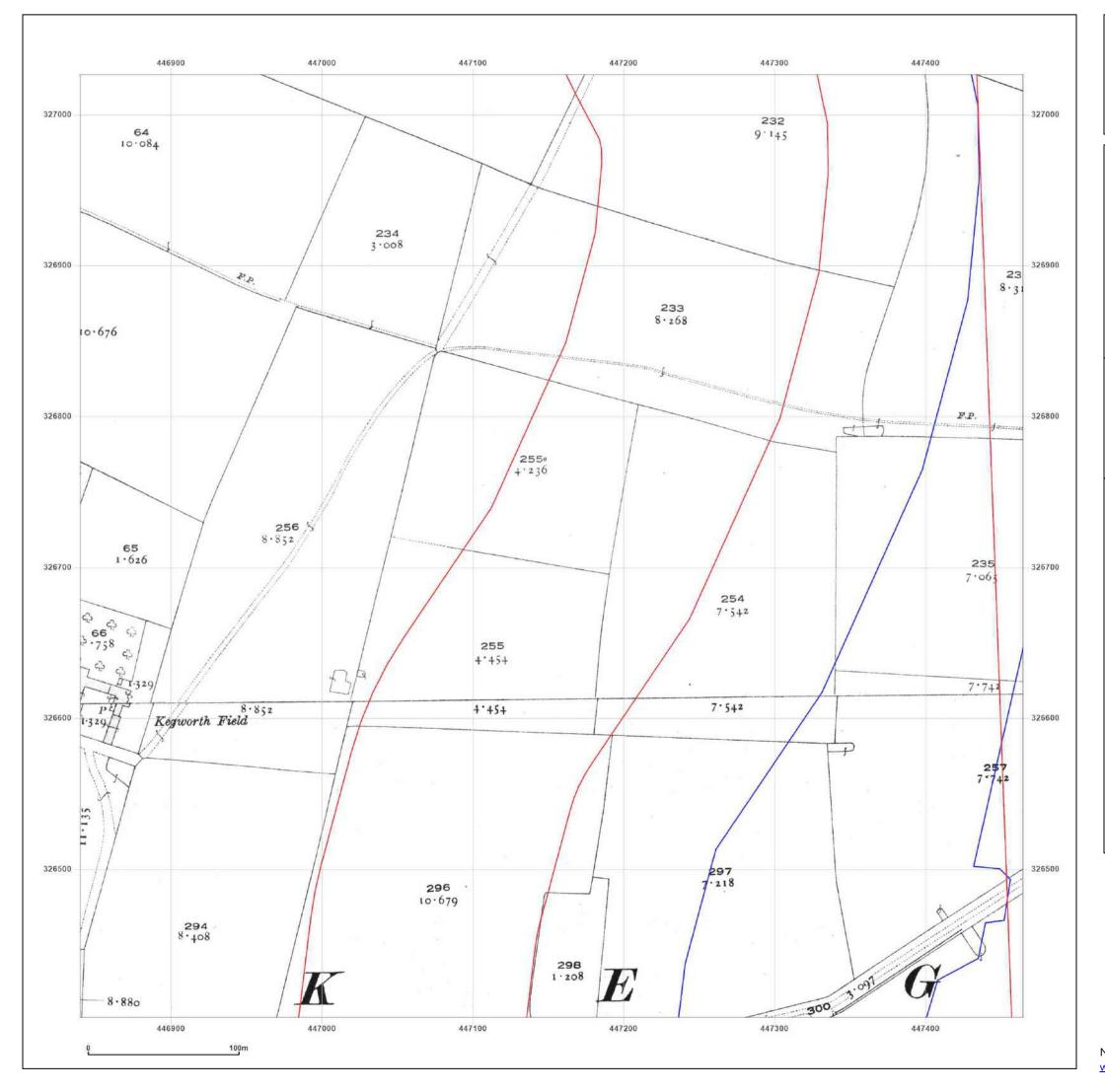




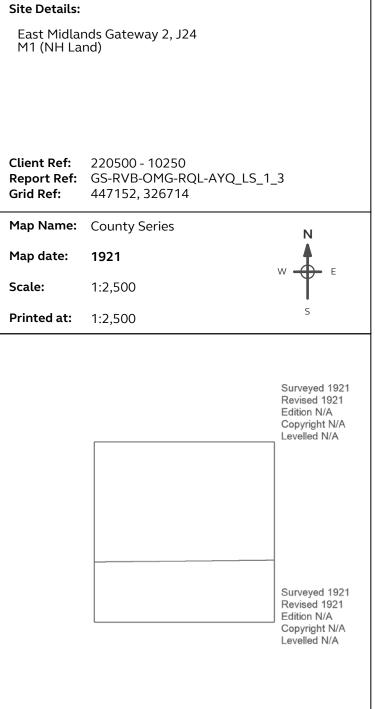
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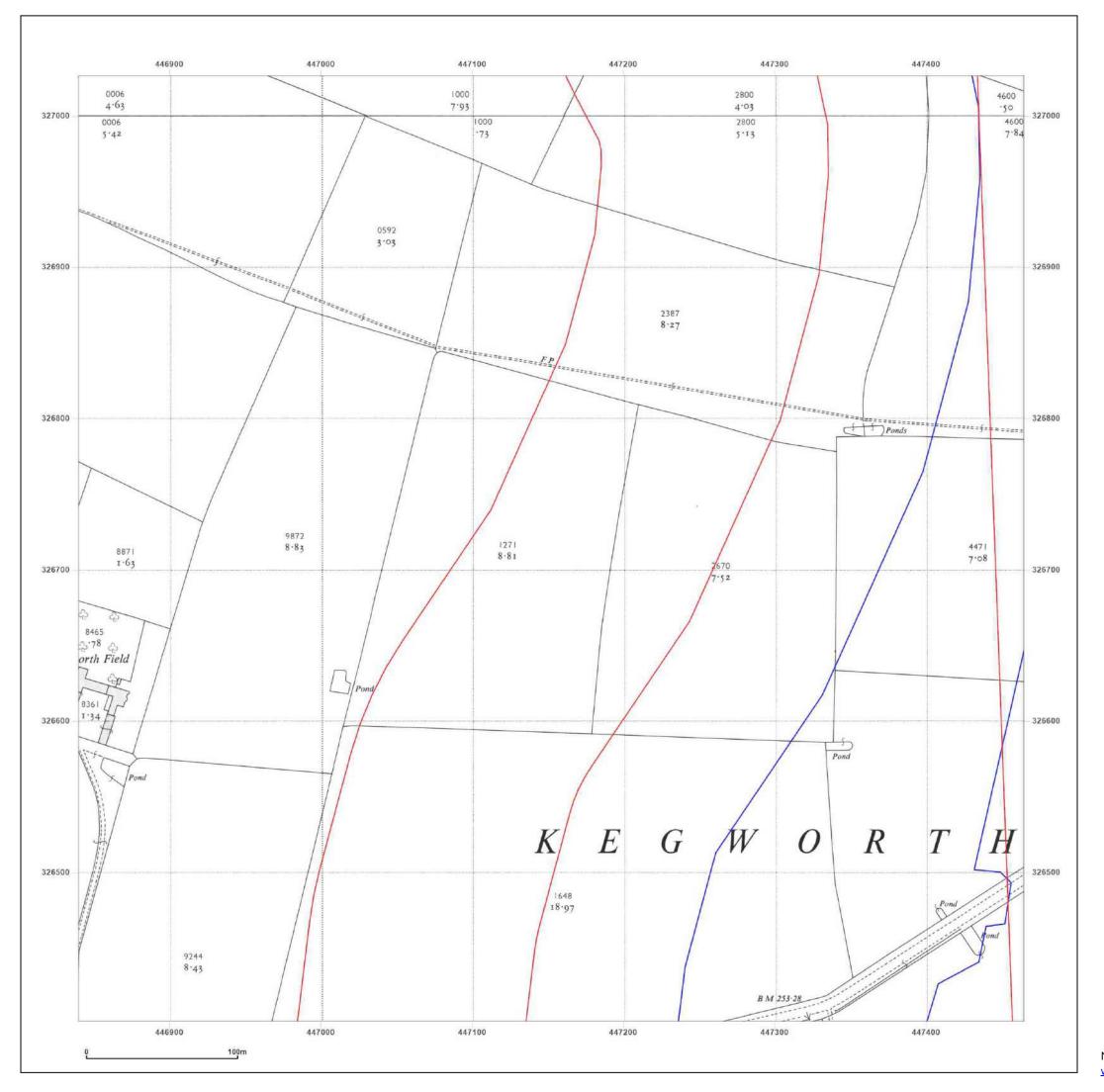




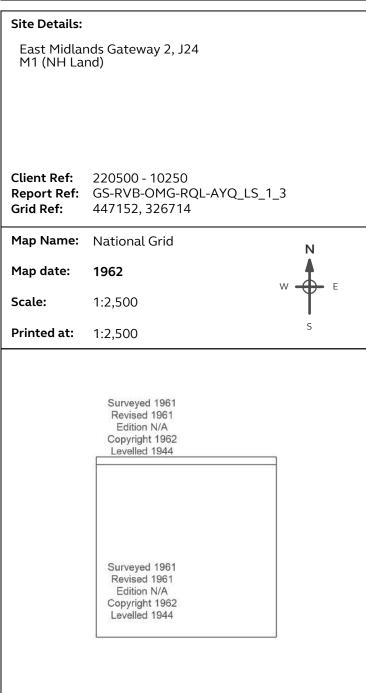
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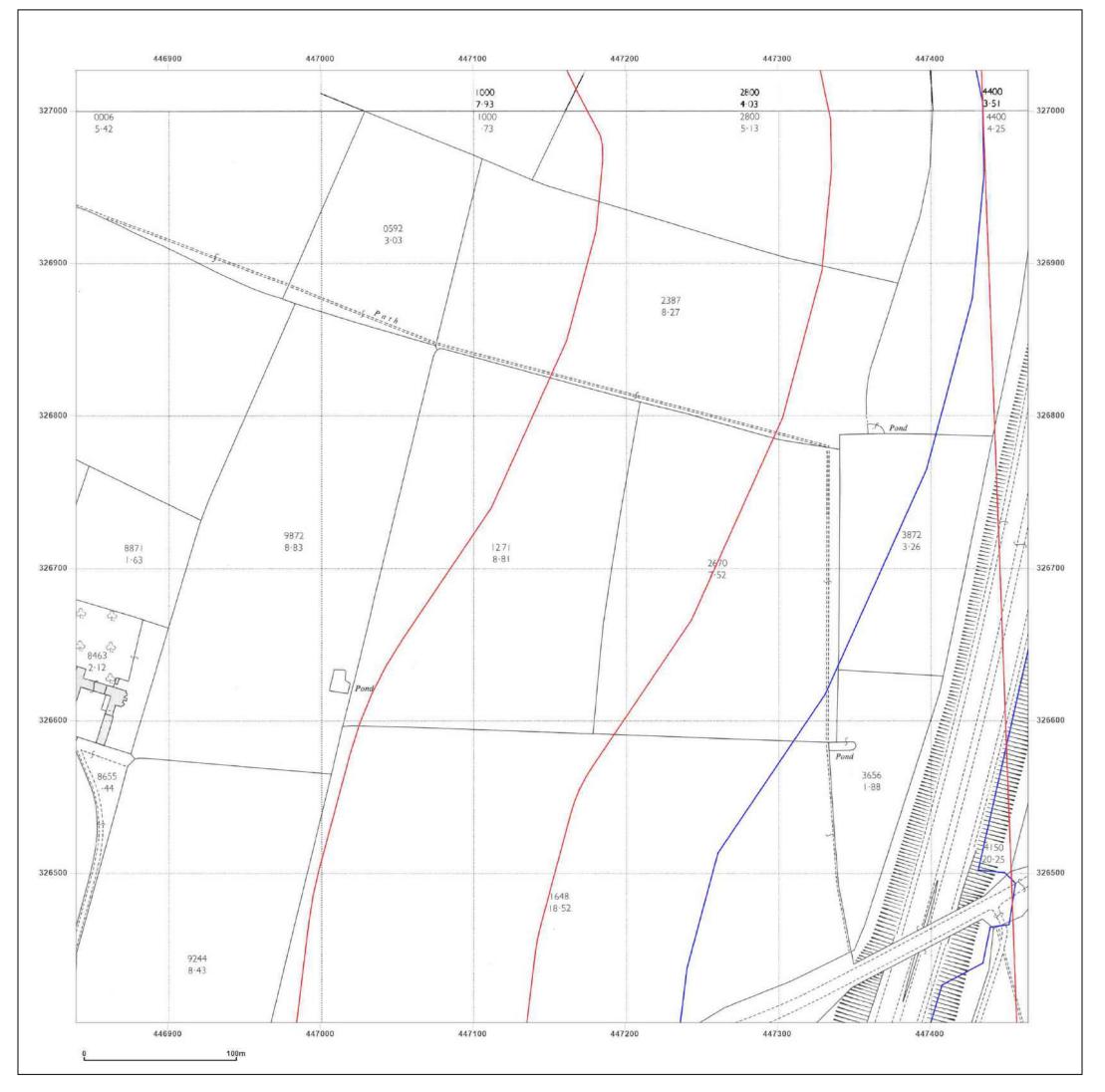




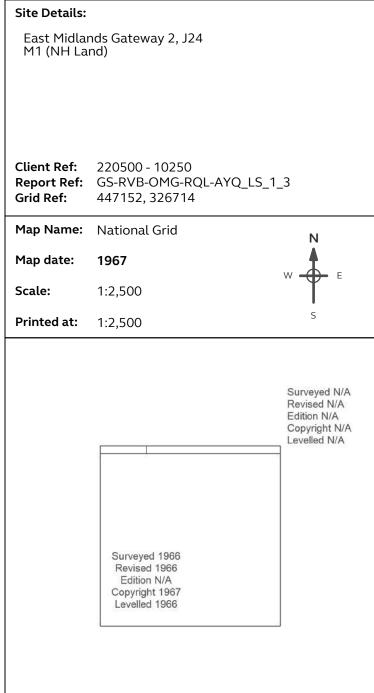
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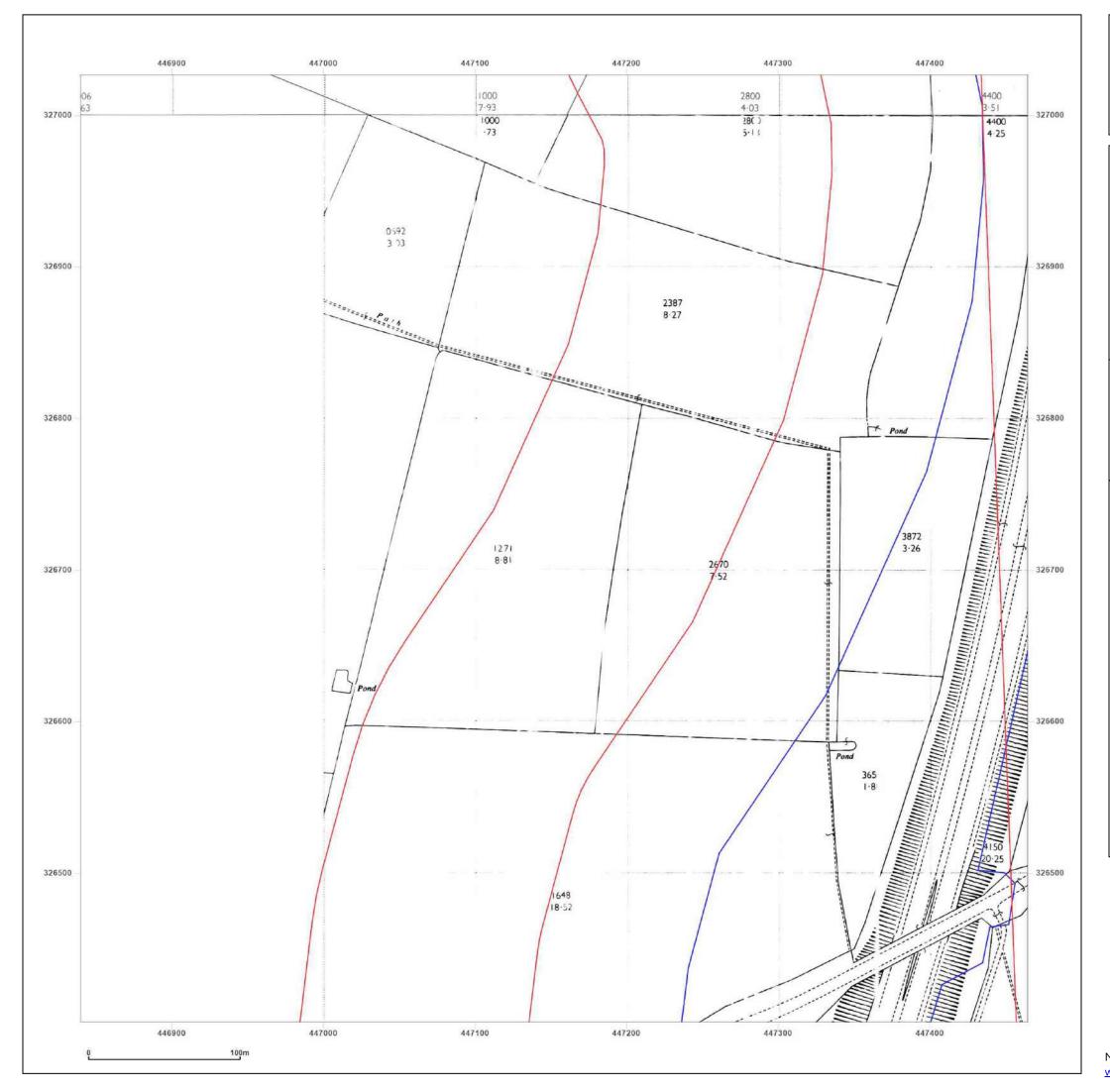




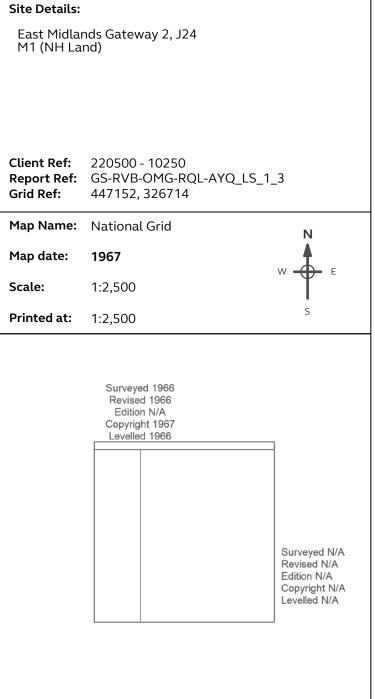
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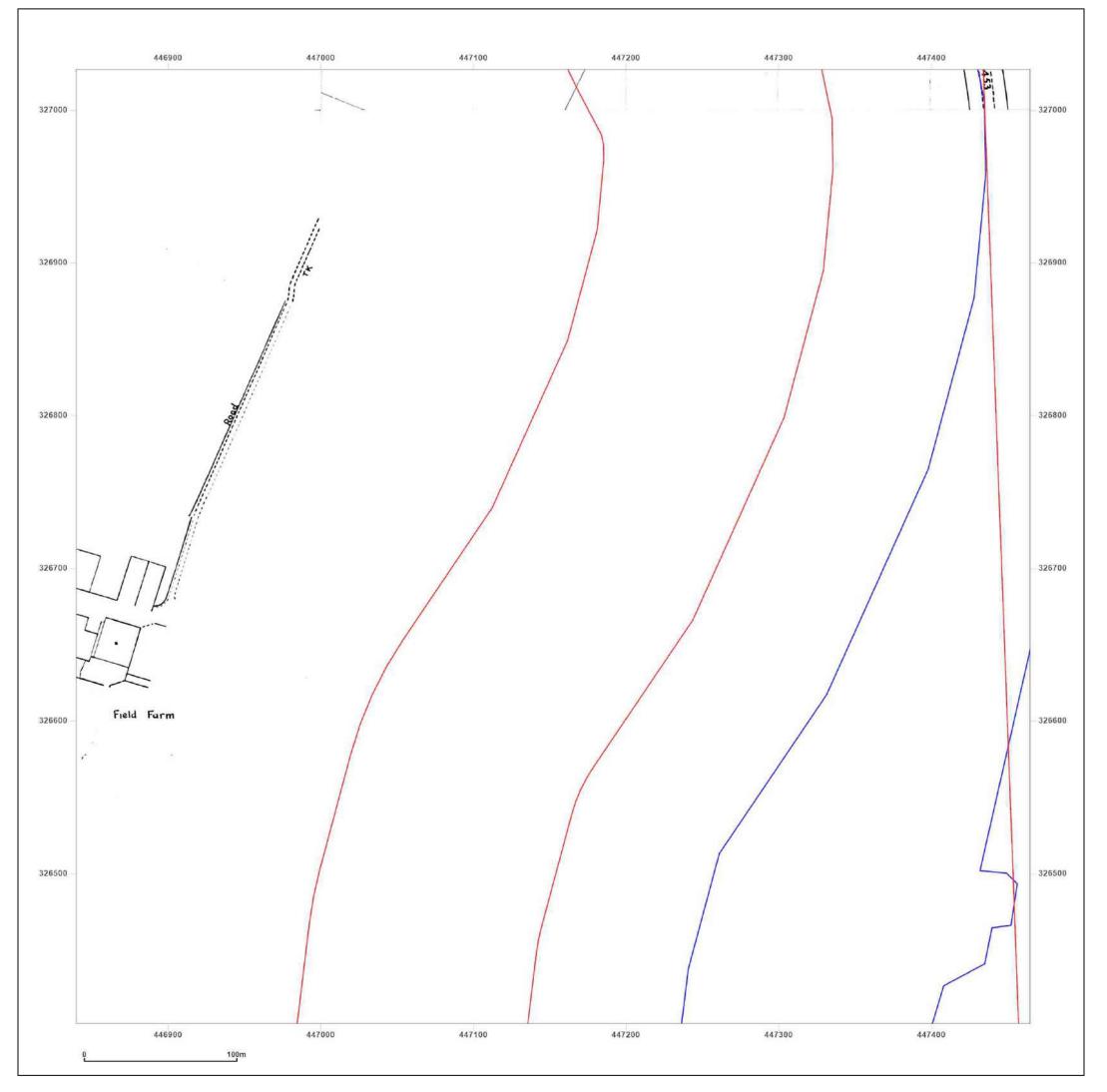




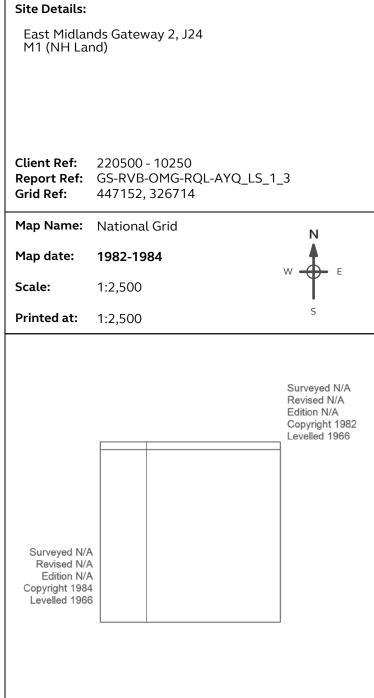
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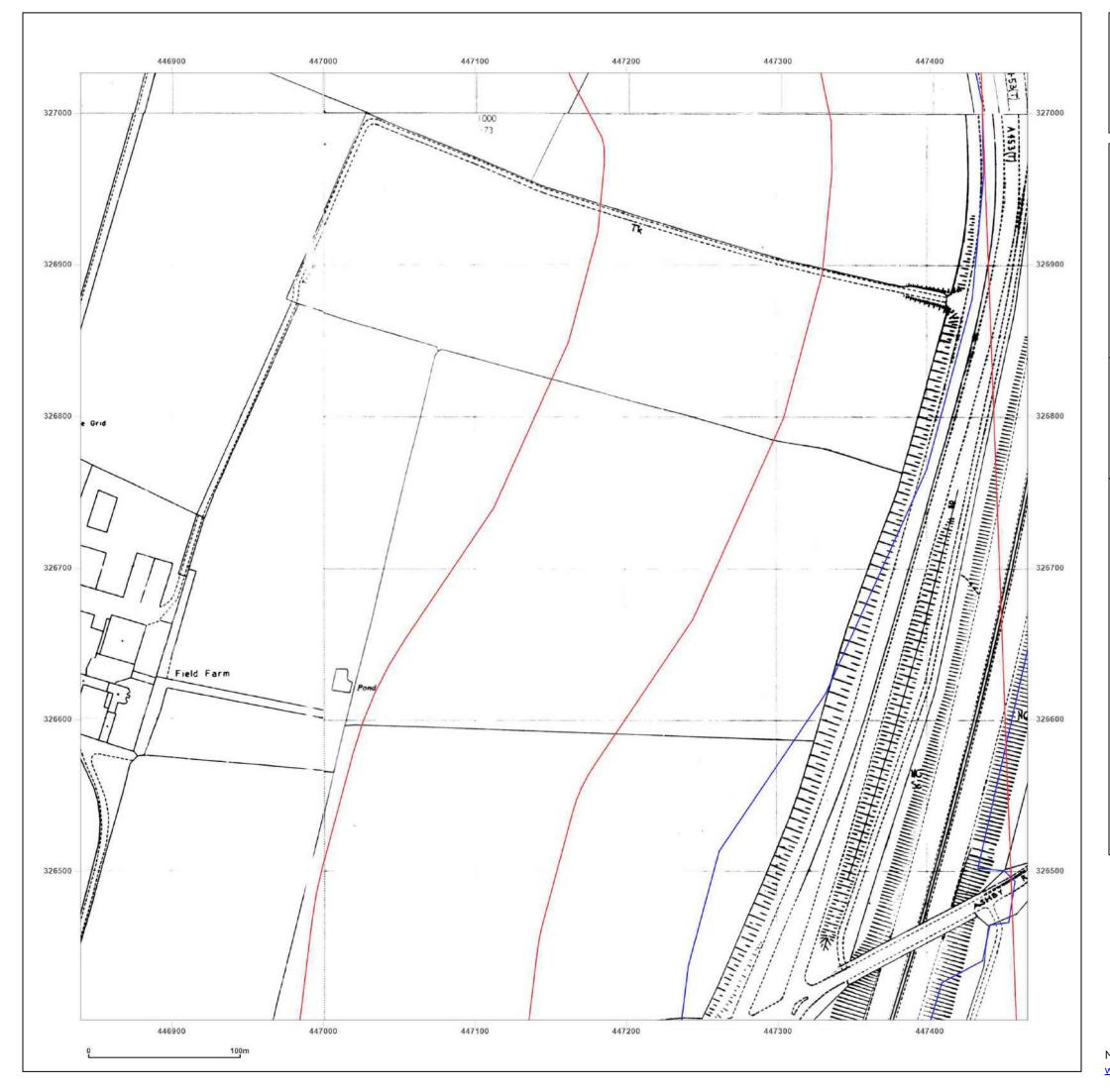




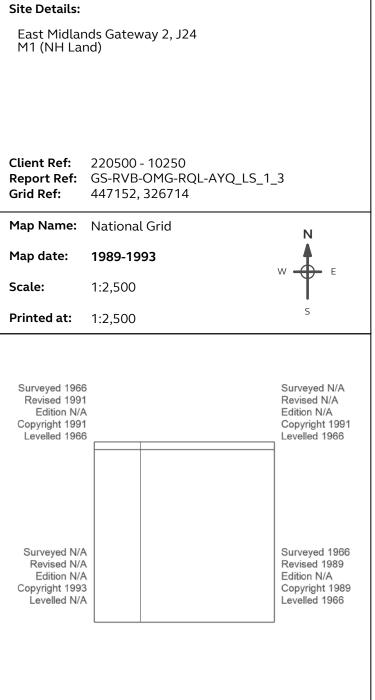
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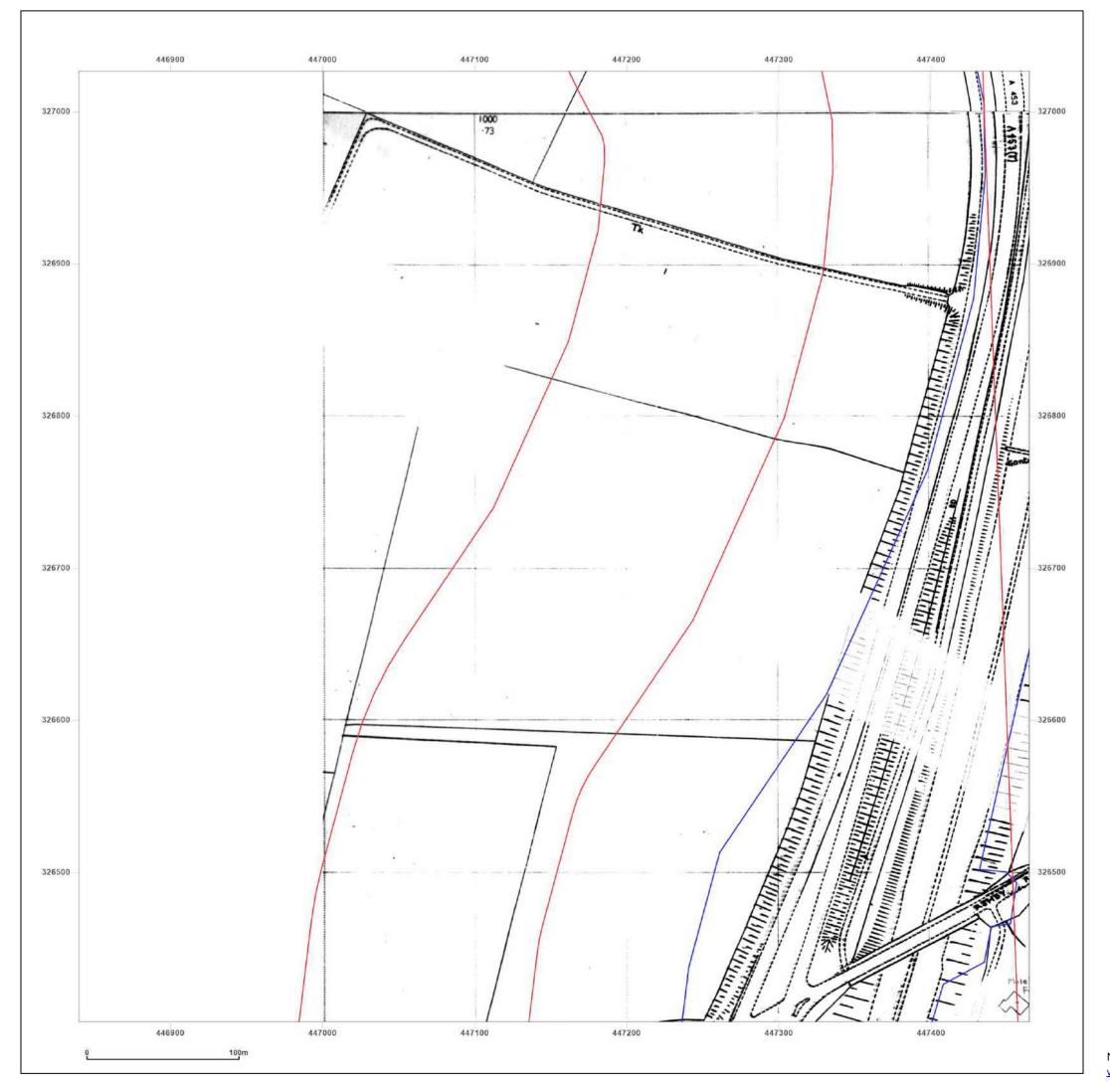




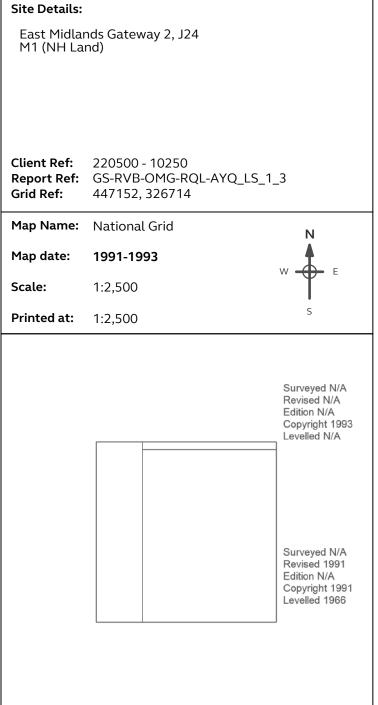
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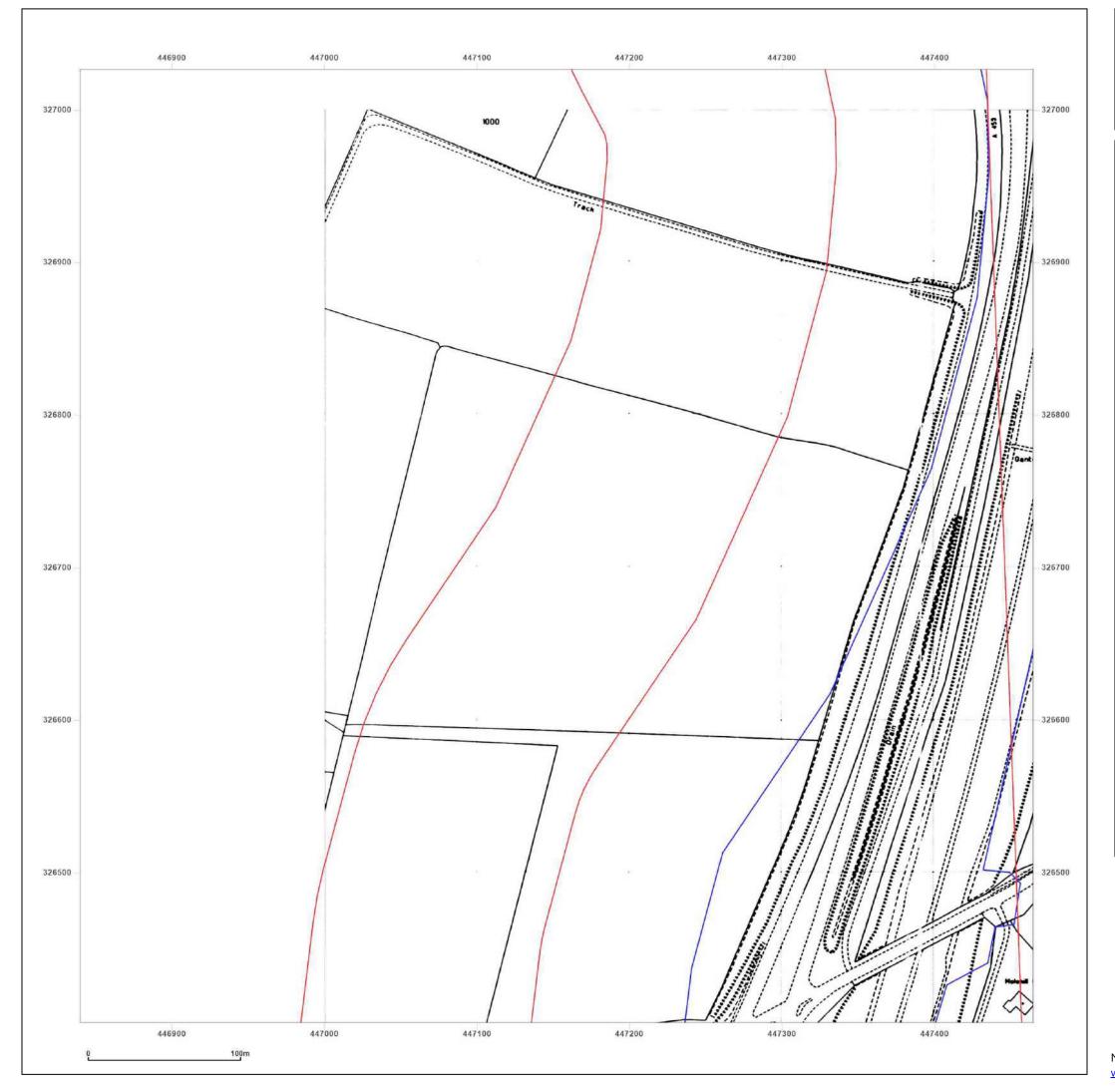




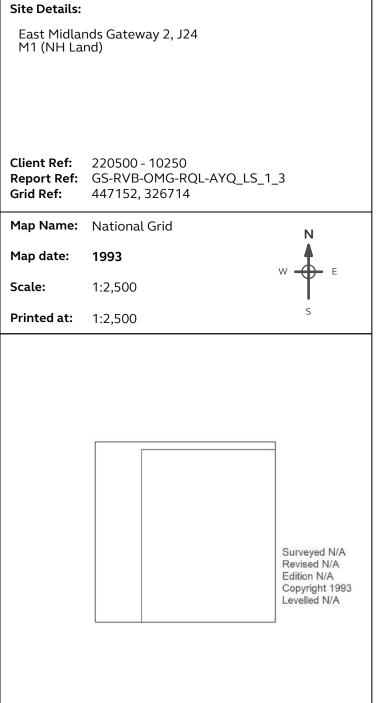
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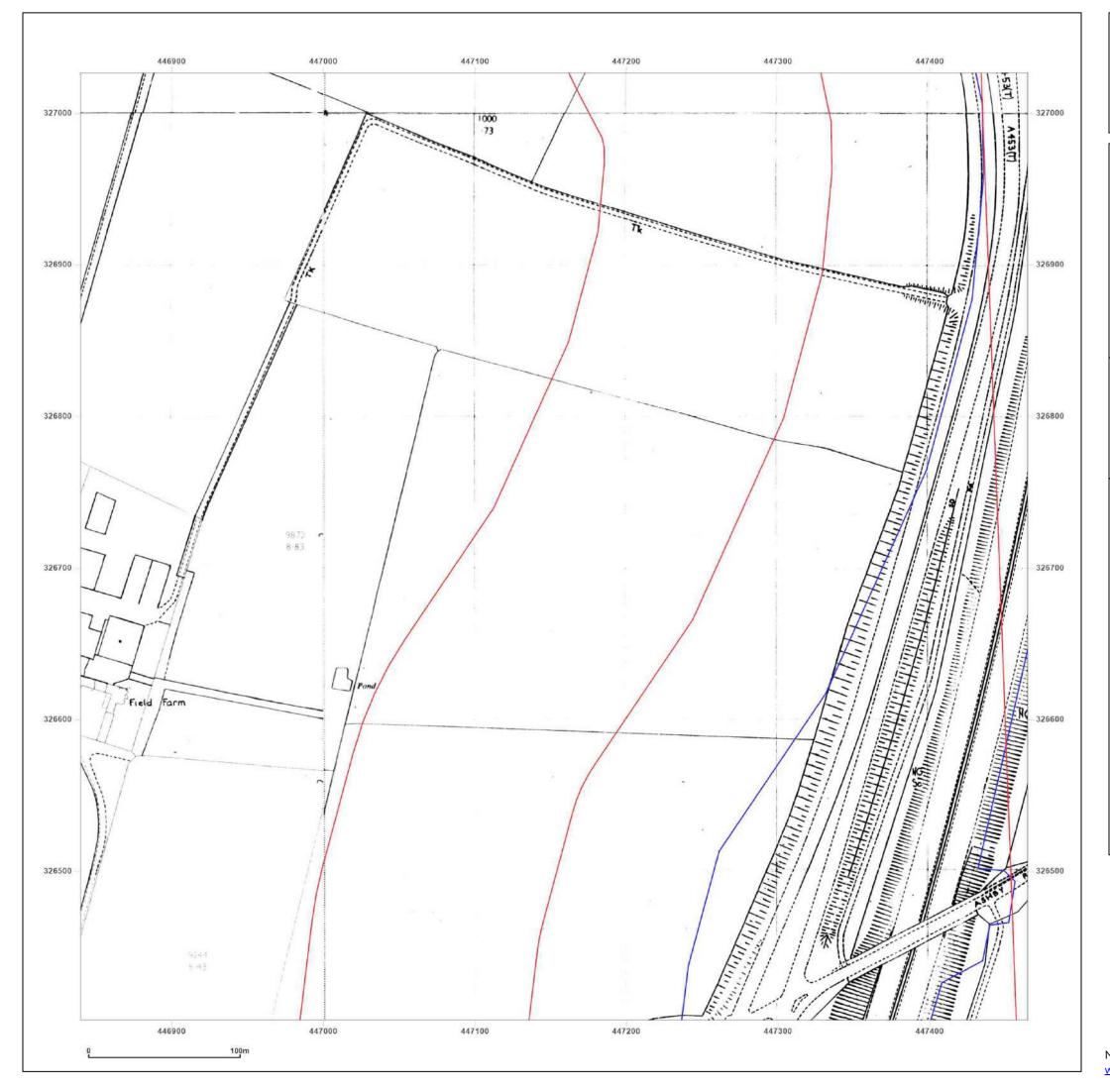




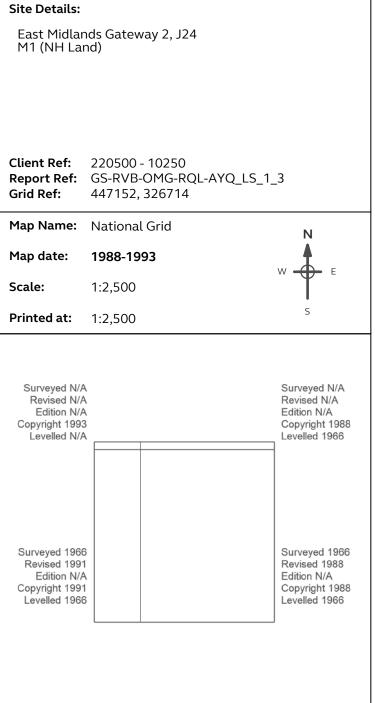
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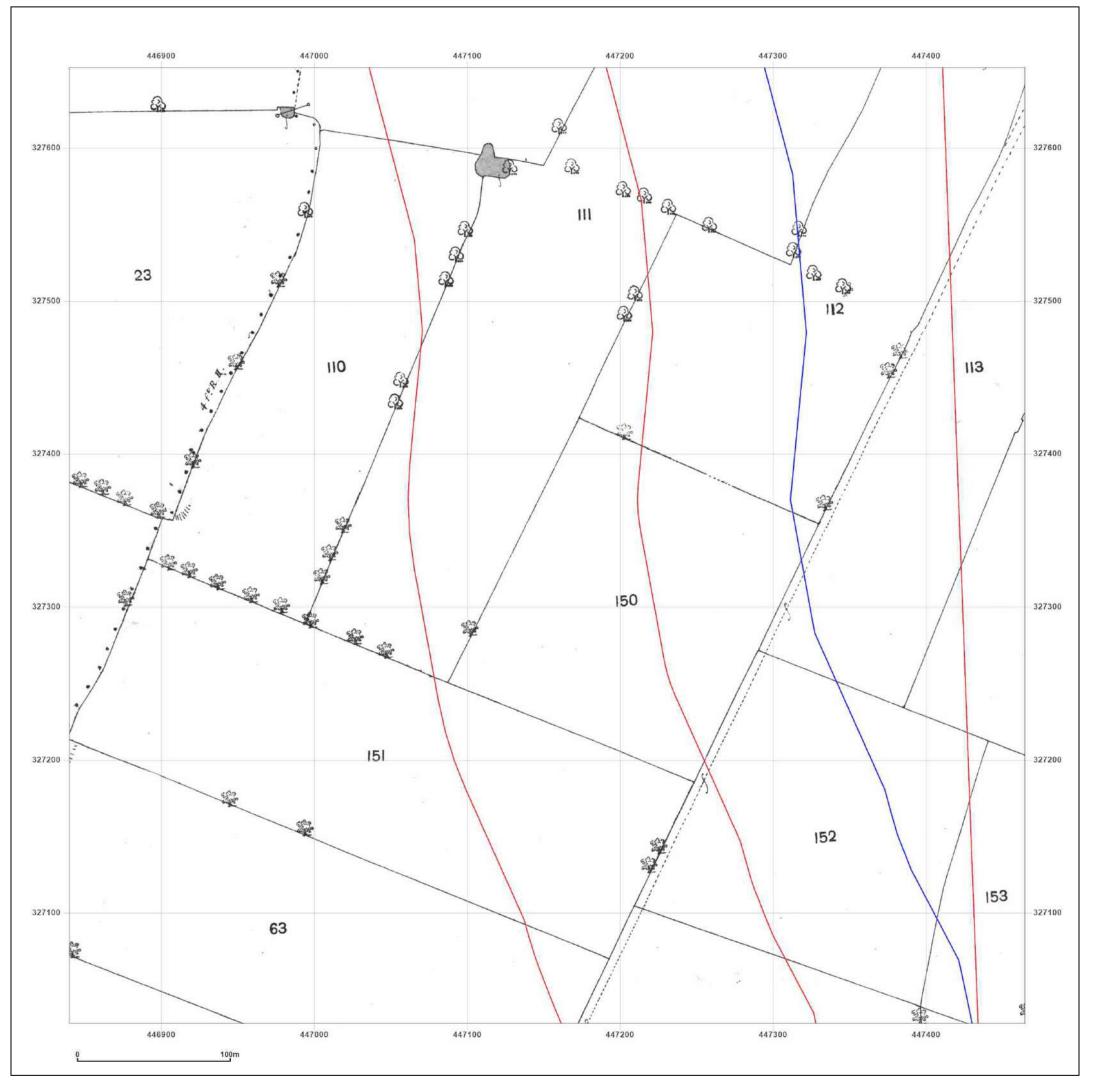




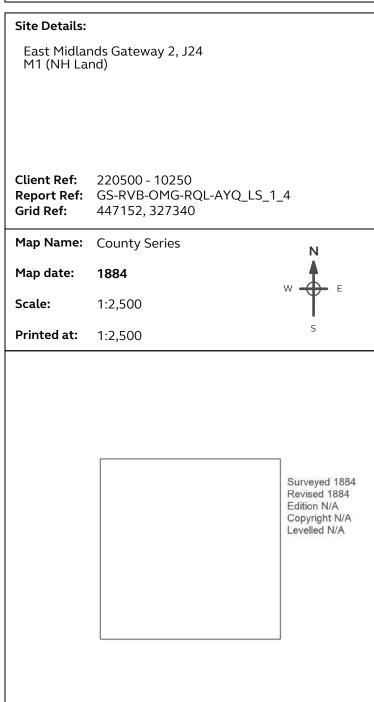
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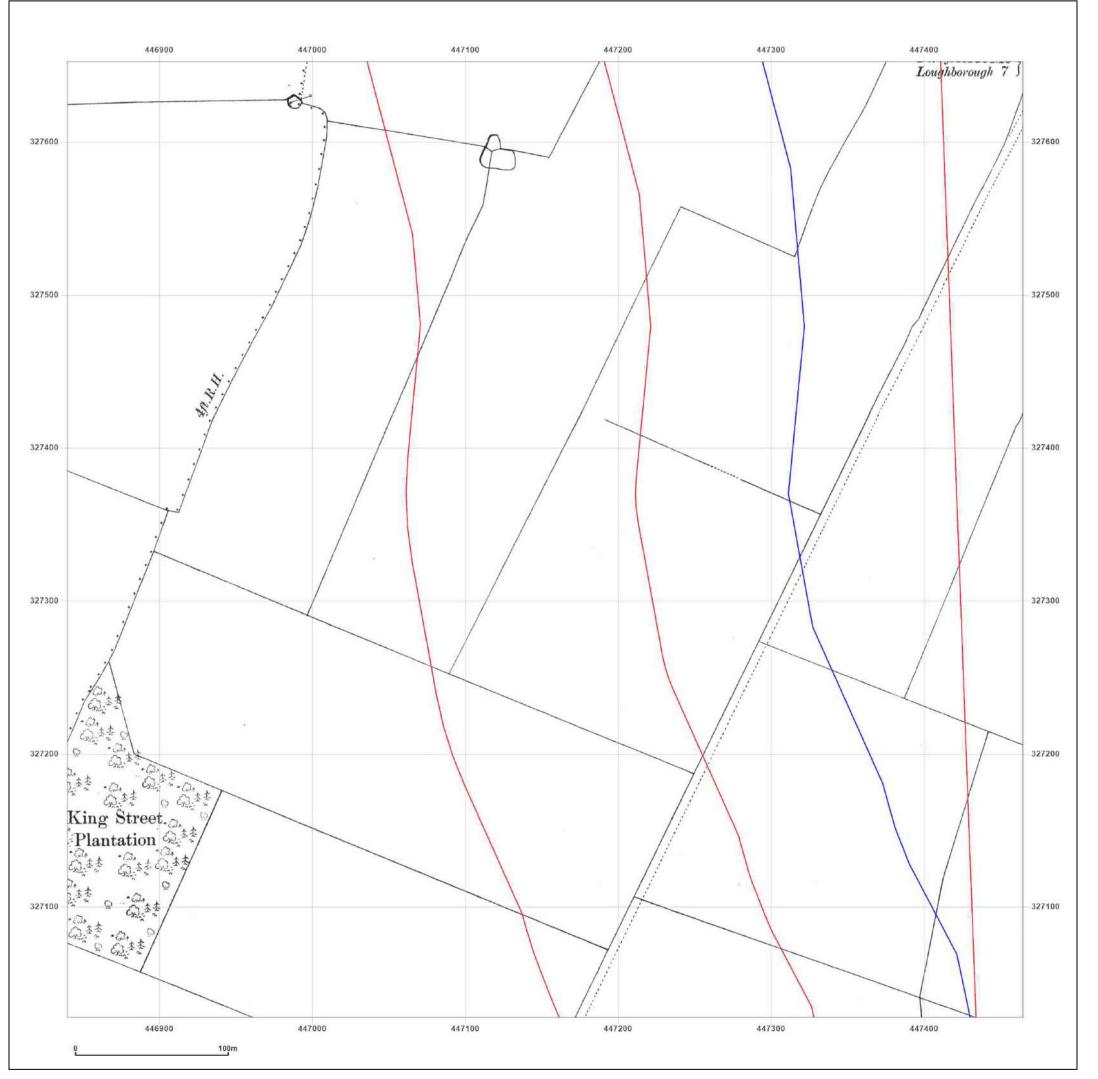




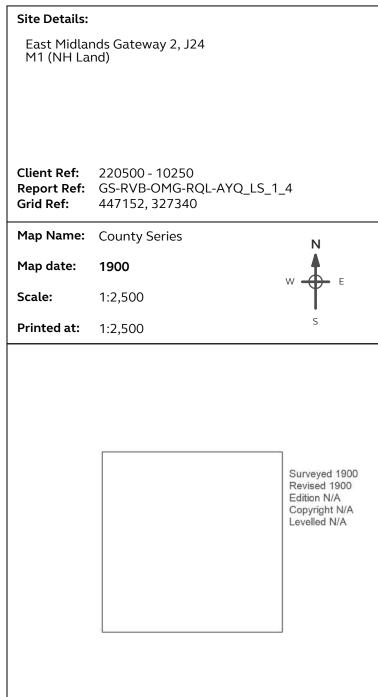
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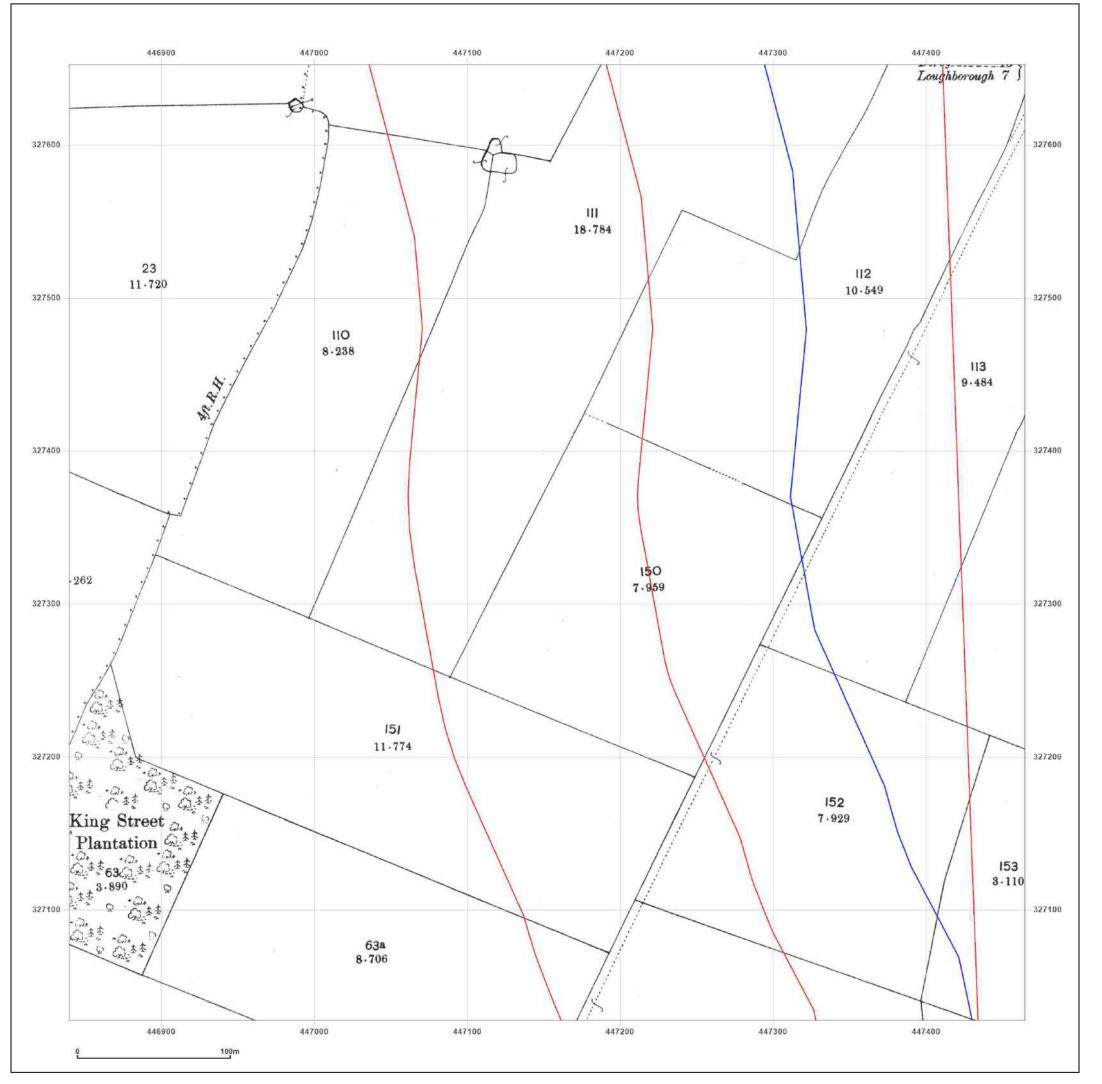




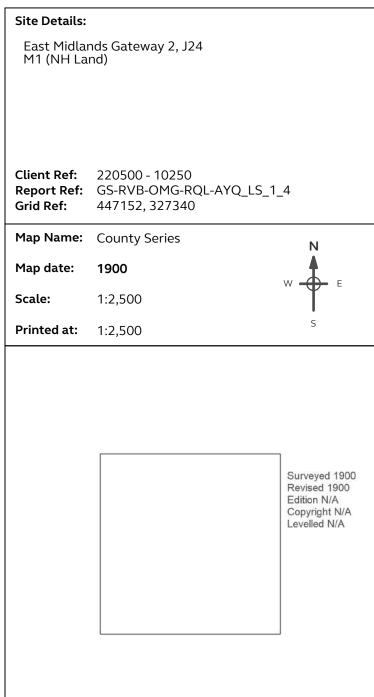
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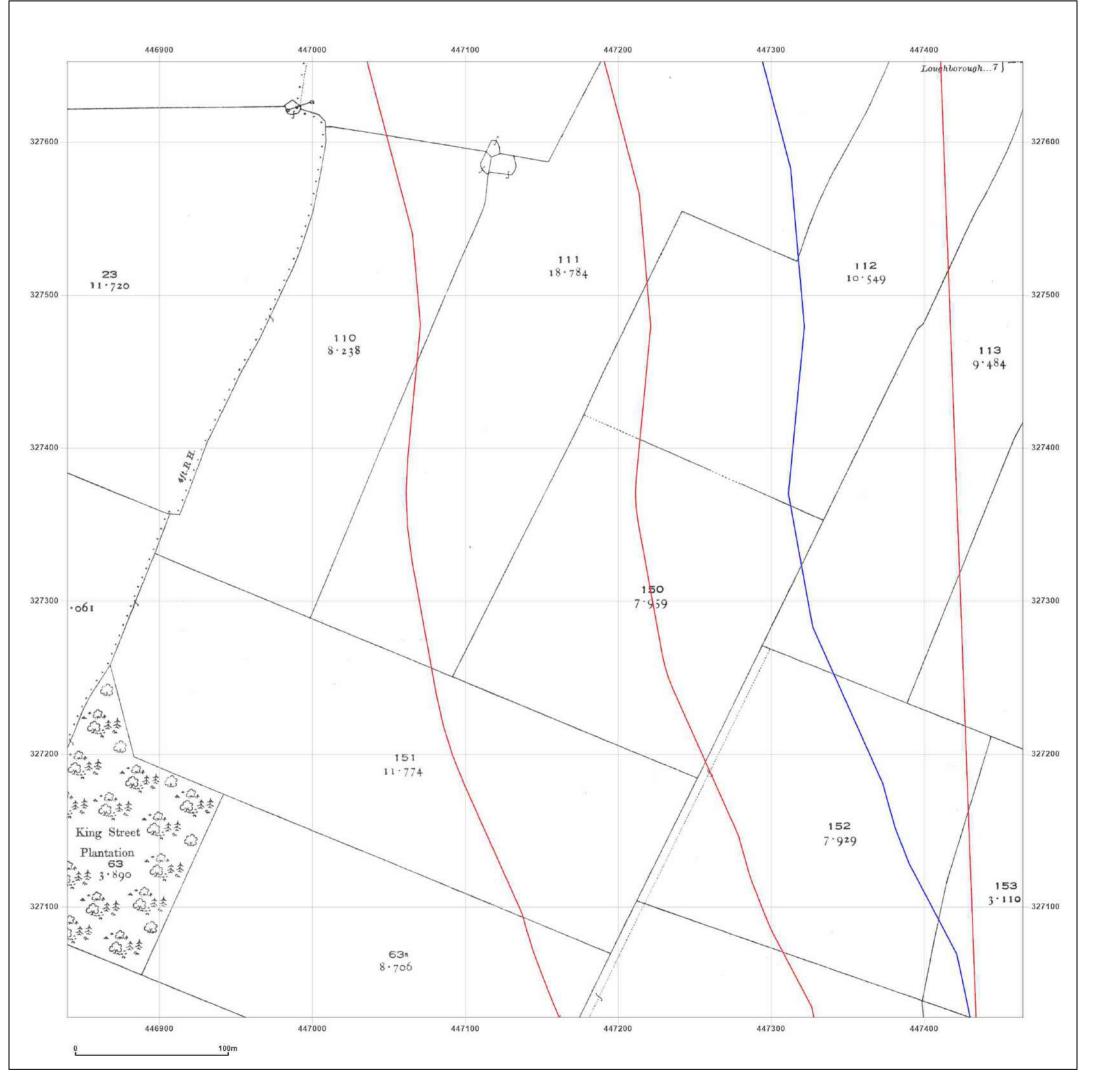




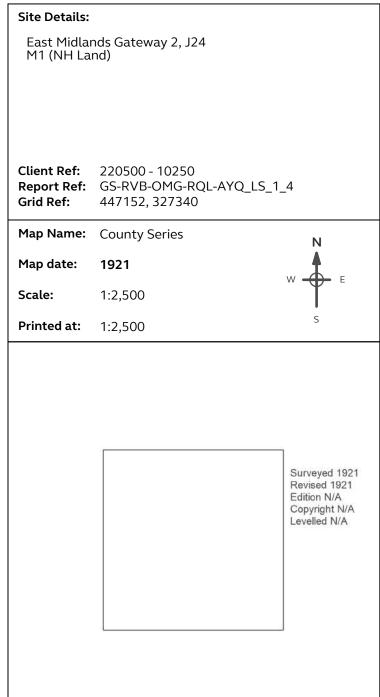
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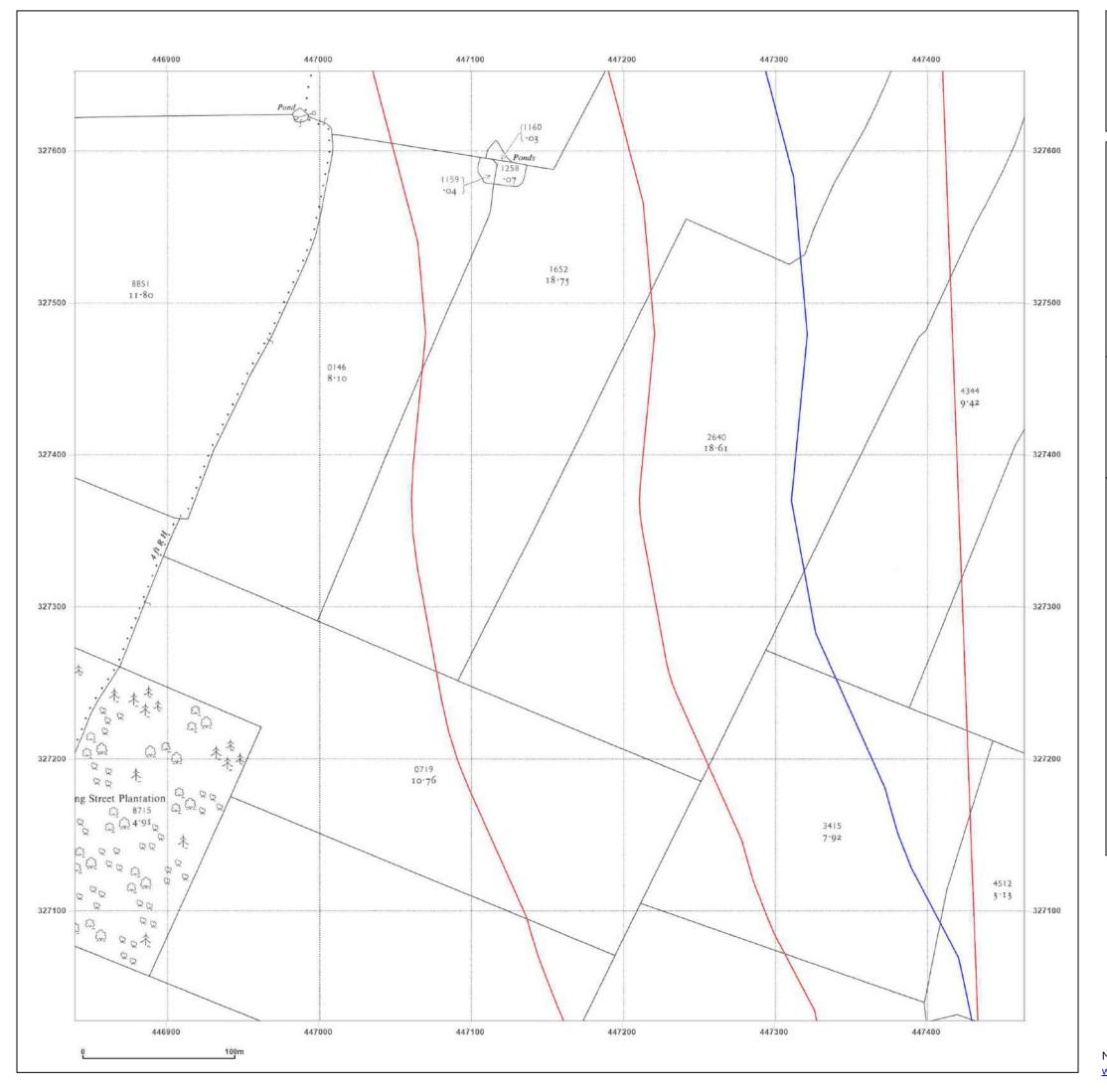




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Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_4

Grid Ref: 447152, 327340

Map Name: National Grid

Map date: 1962

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1961 Revised 1961 Edition N/A Copyright 1962 Levelled 1944

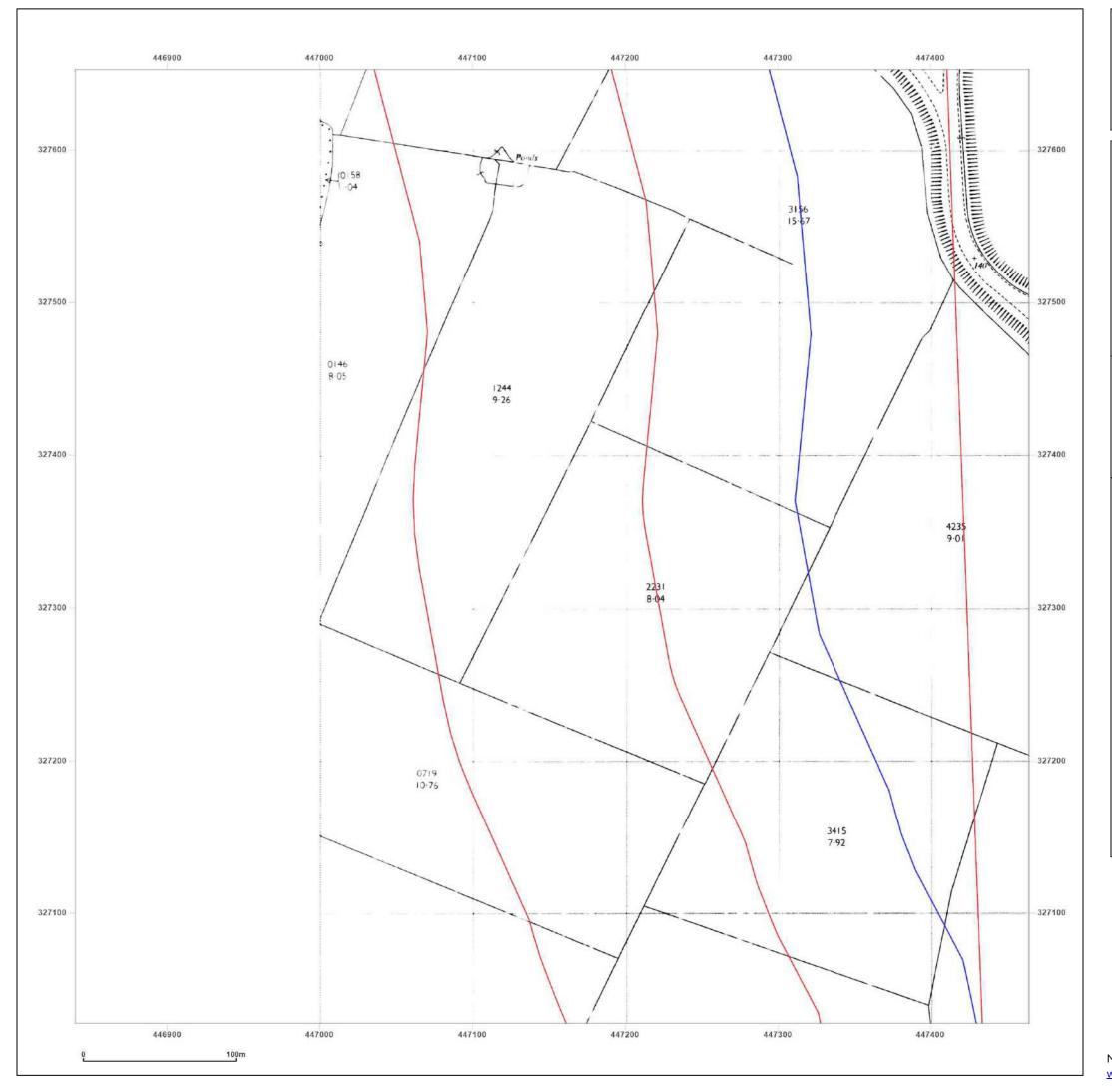


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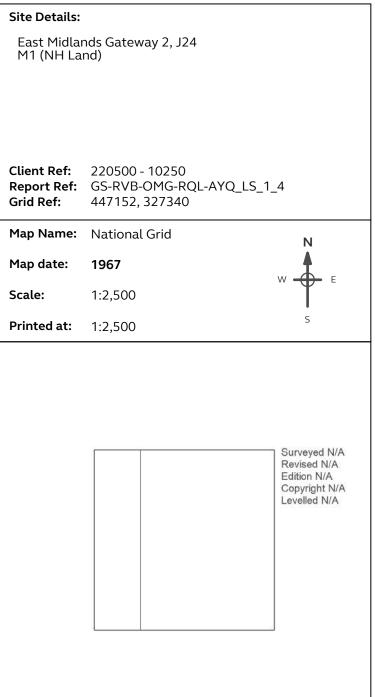
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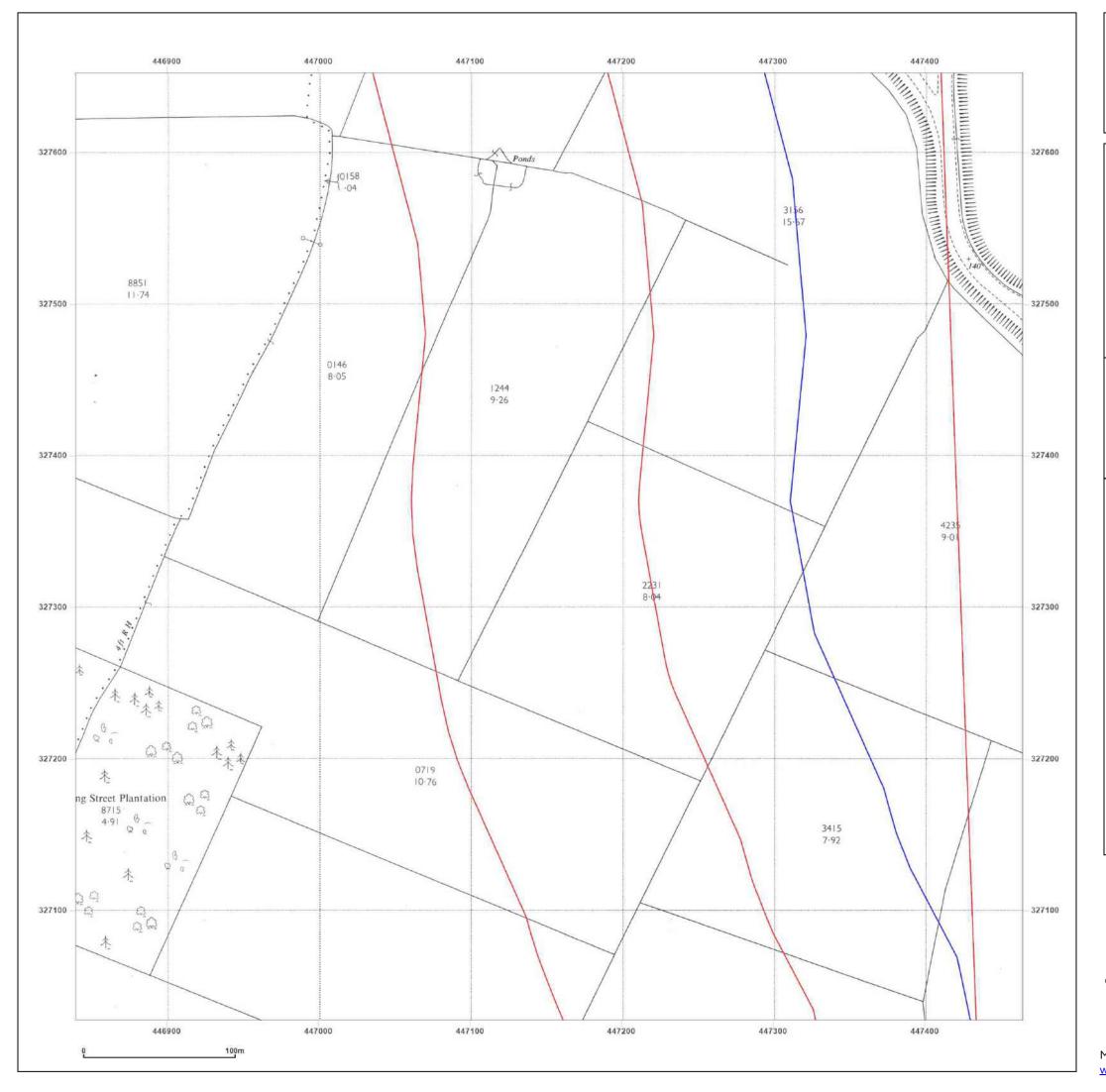




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Map legend available at:





Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_4

Grid Ref: 447152, 327340

Map Name: National Grid

Map date: 1967

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1966 Revised 1966 Edition N/A Copyright 1967 Levelled 1966

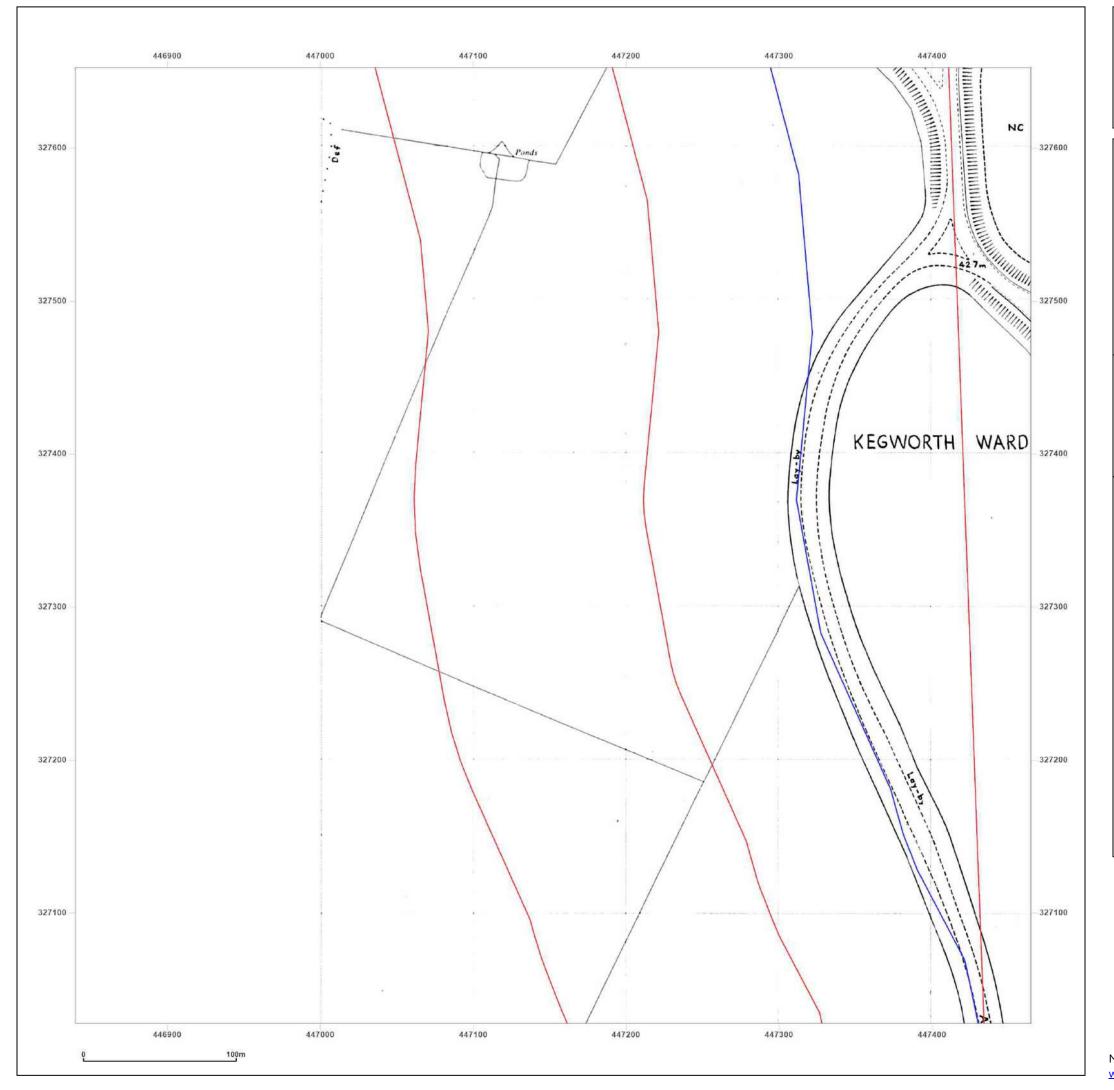


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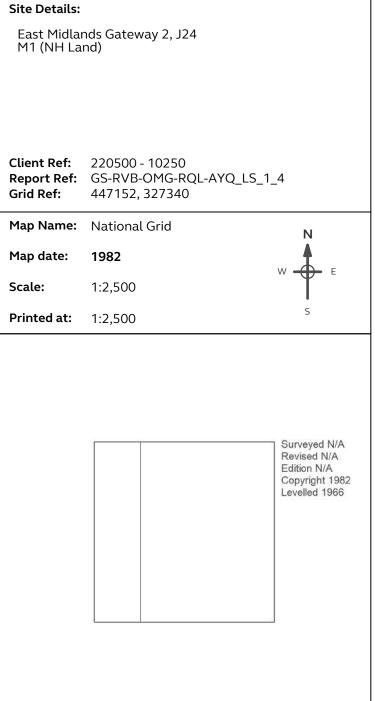
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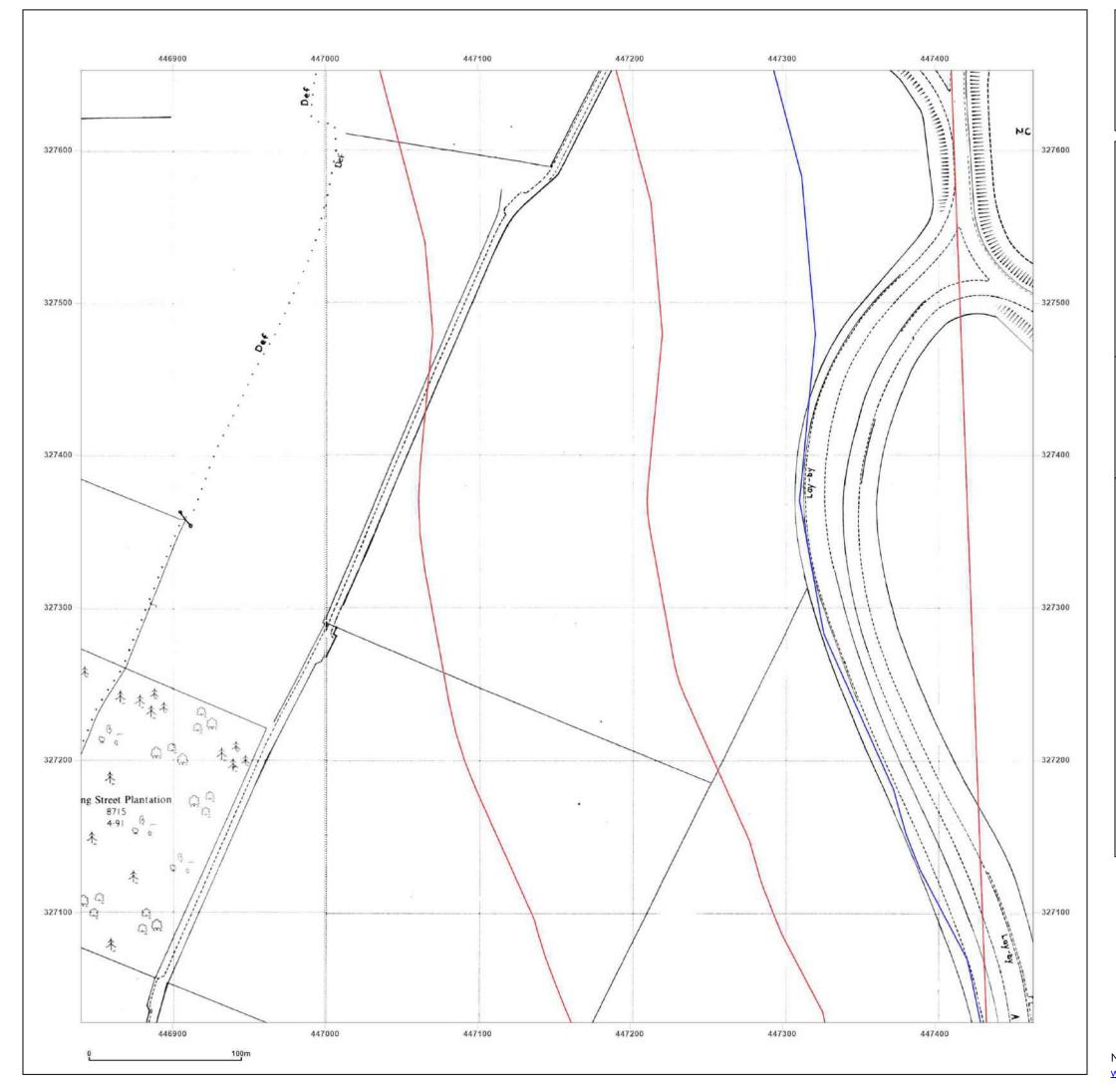




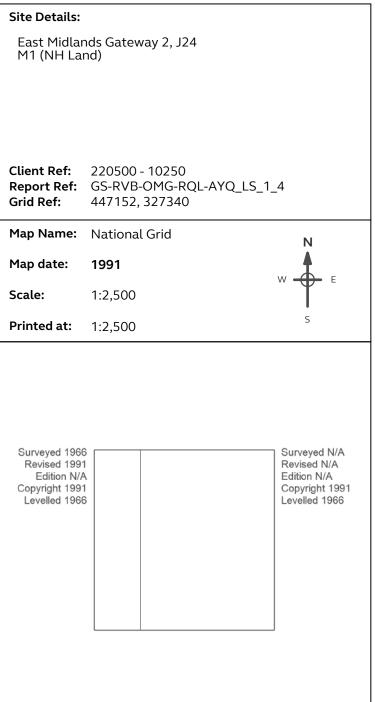
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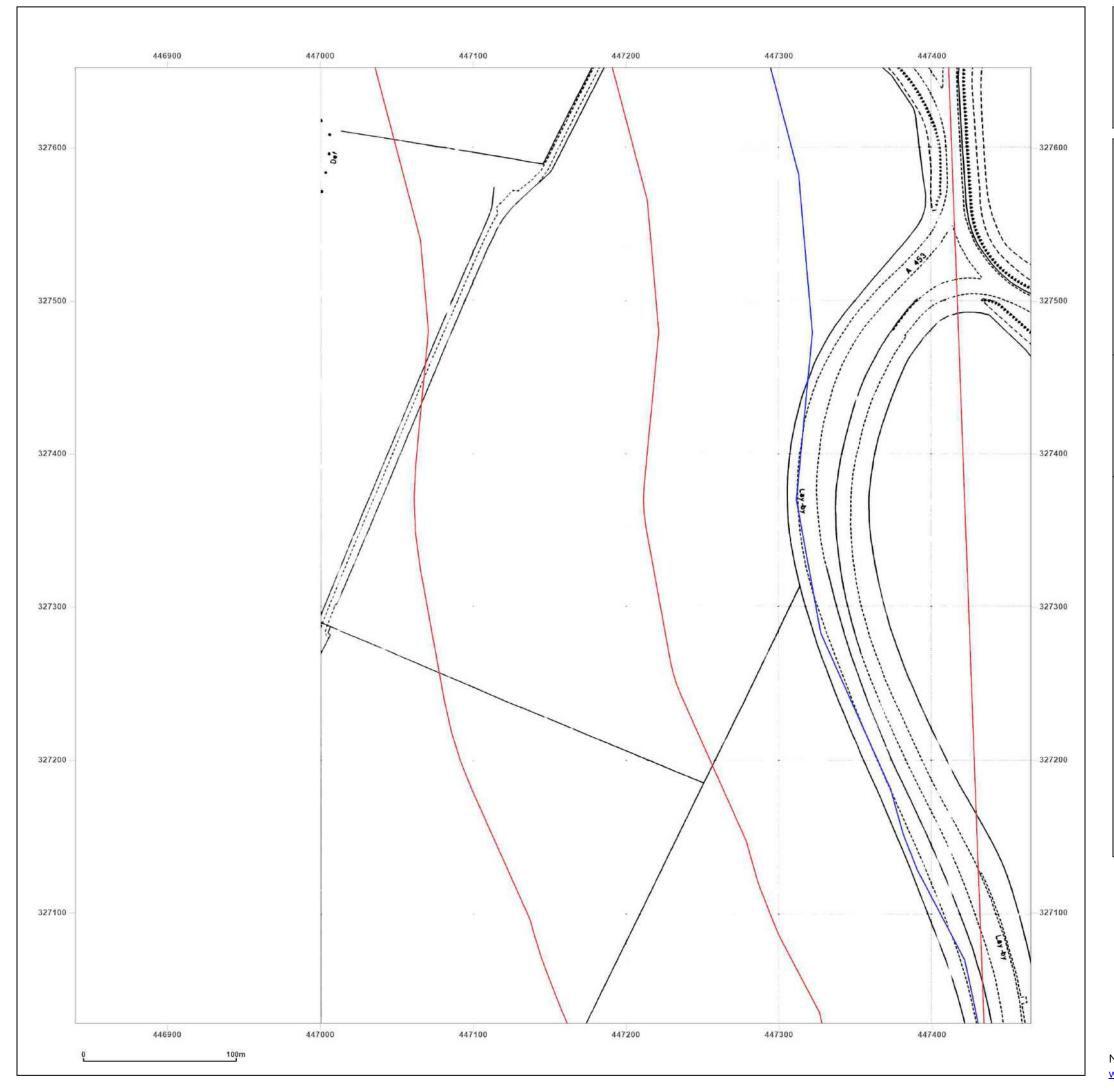




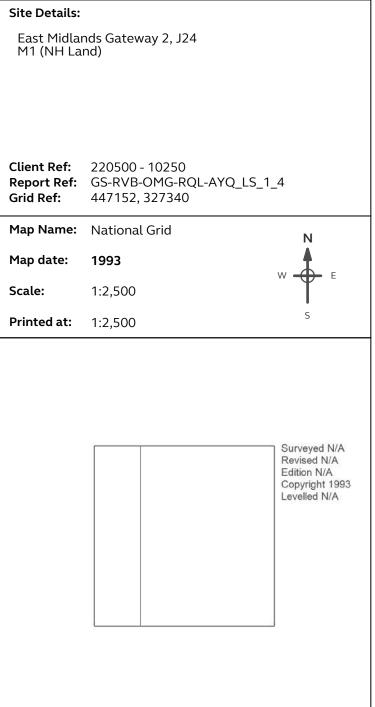
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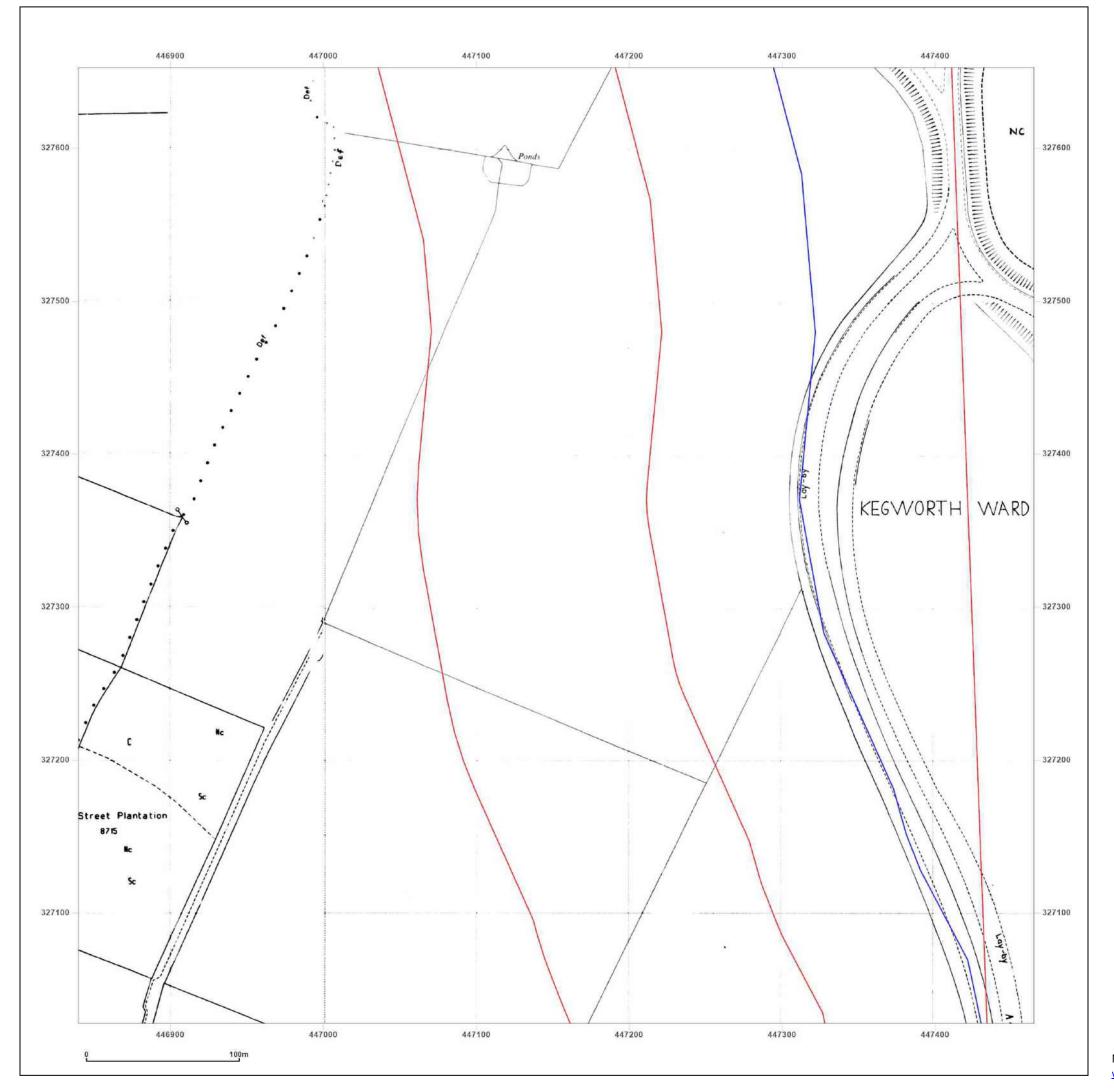




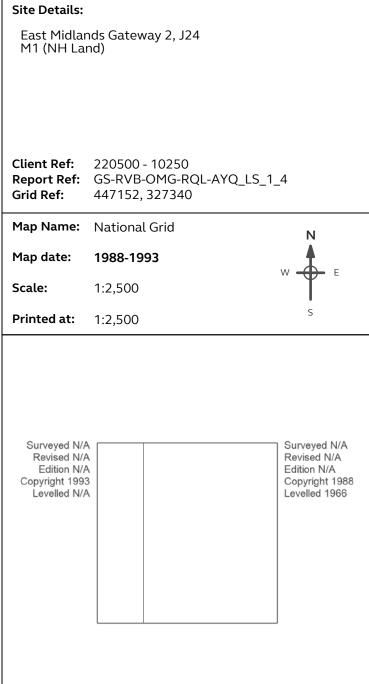
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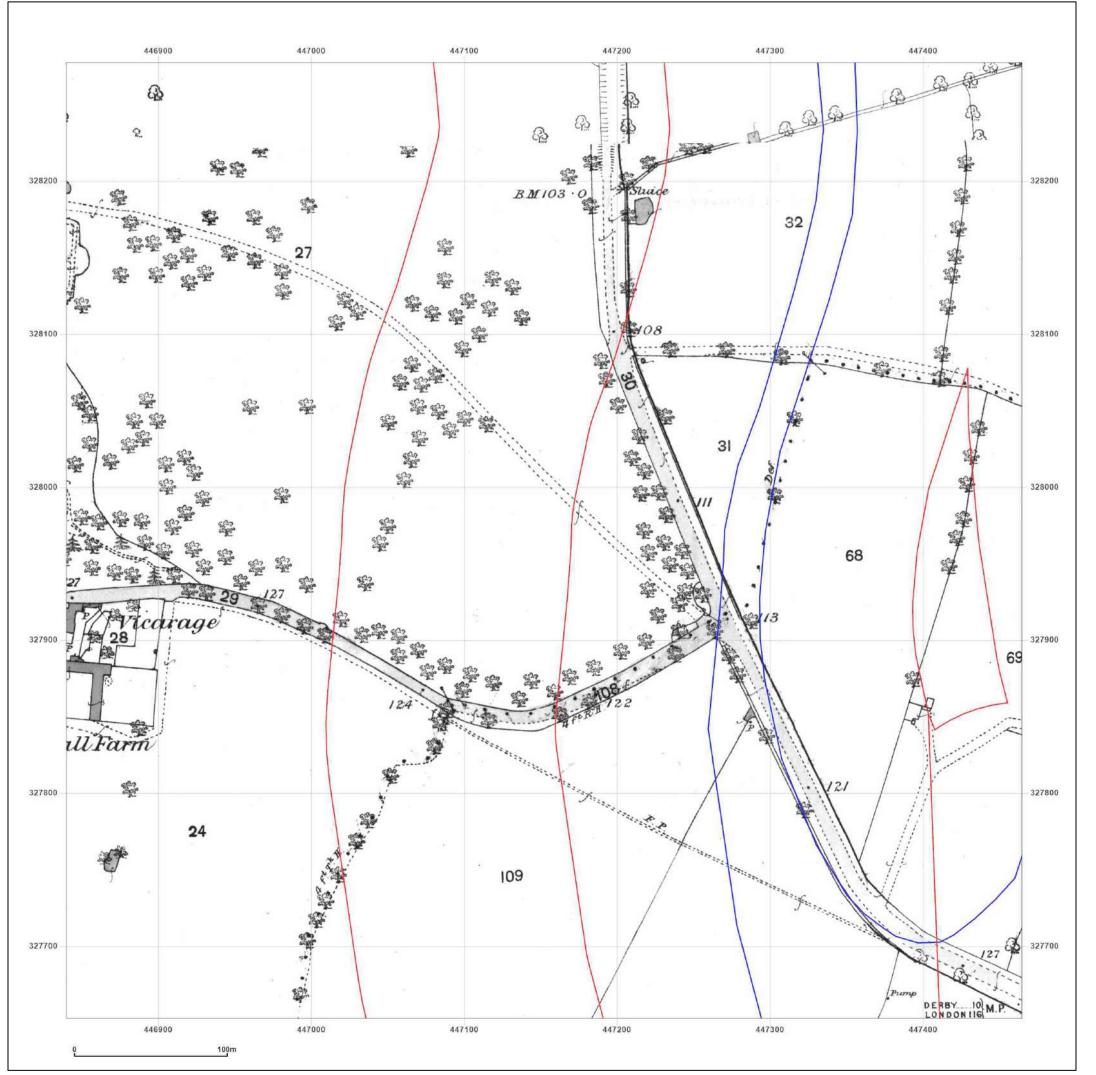




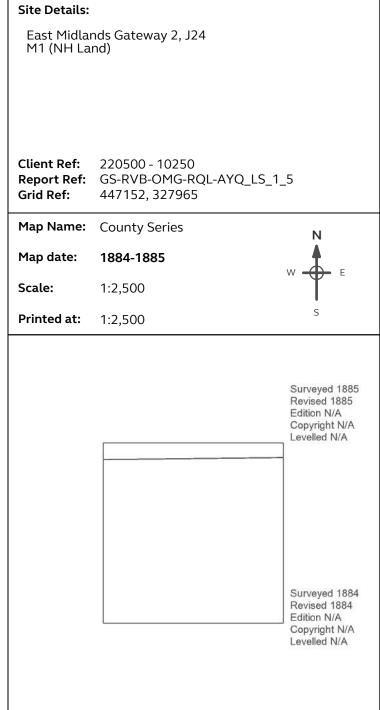
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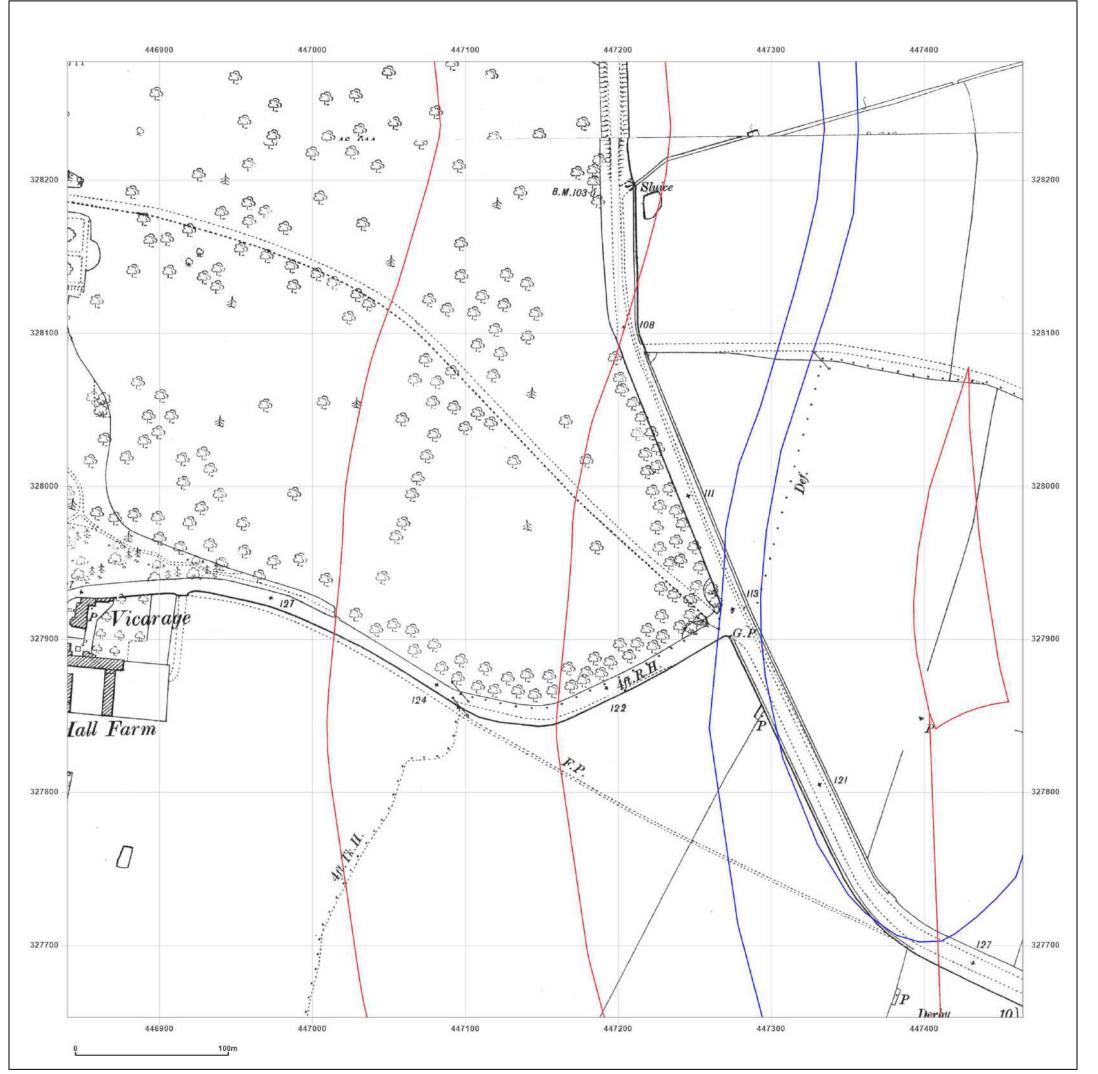




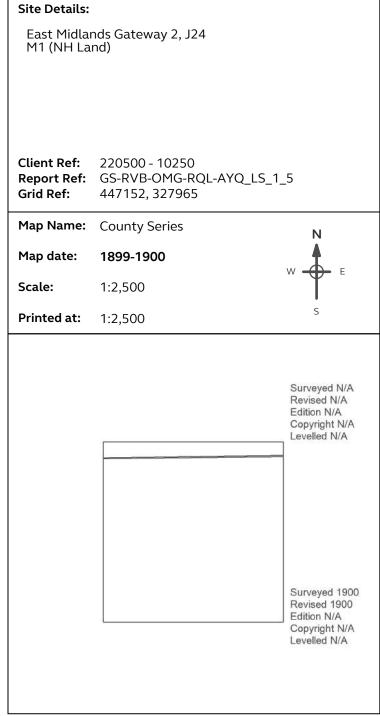
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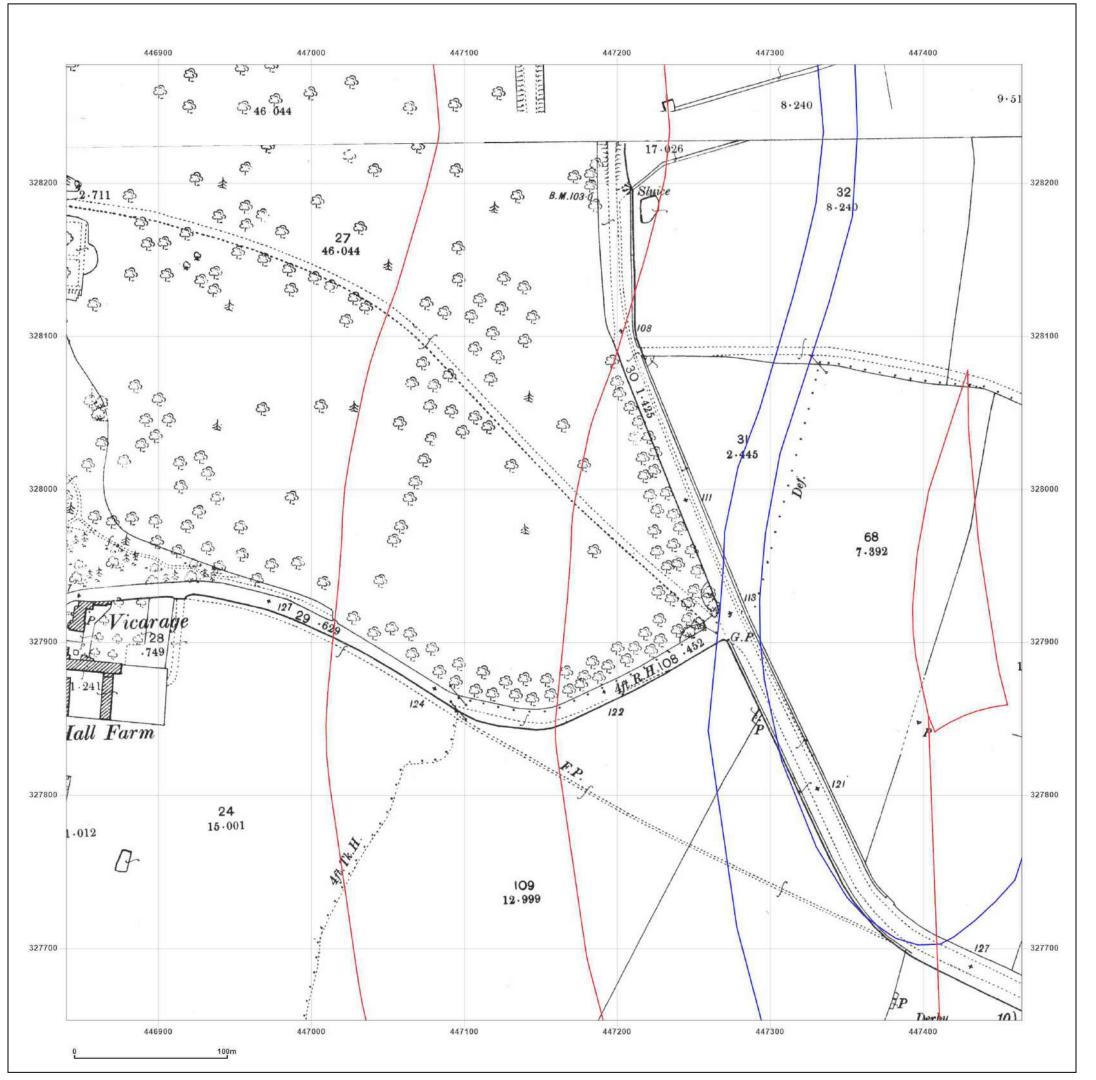




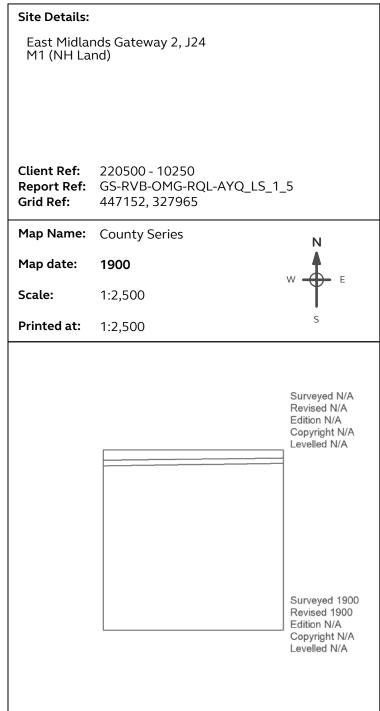
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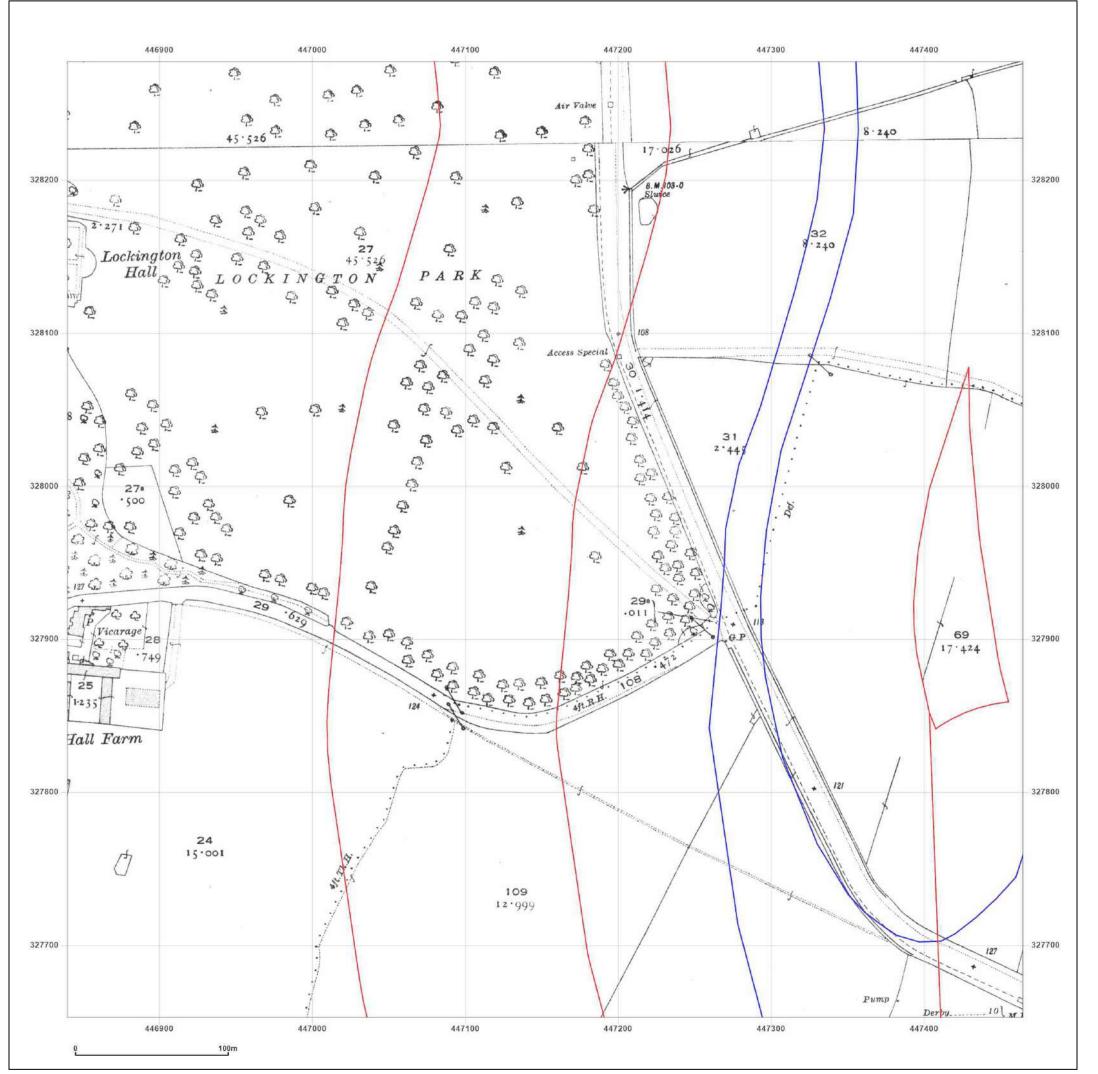




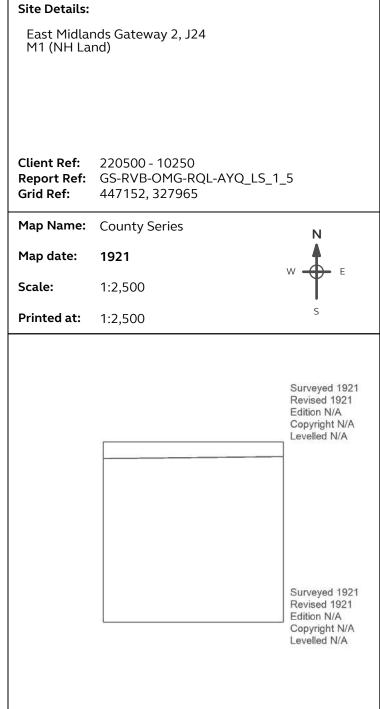
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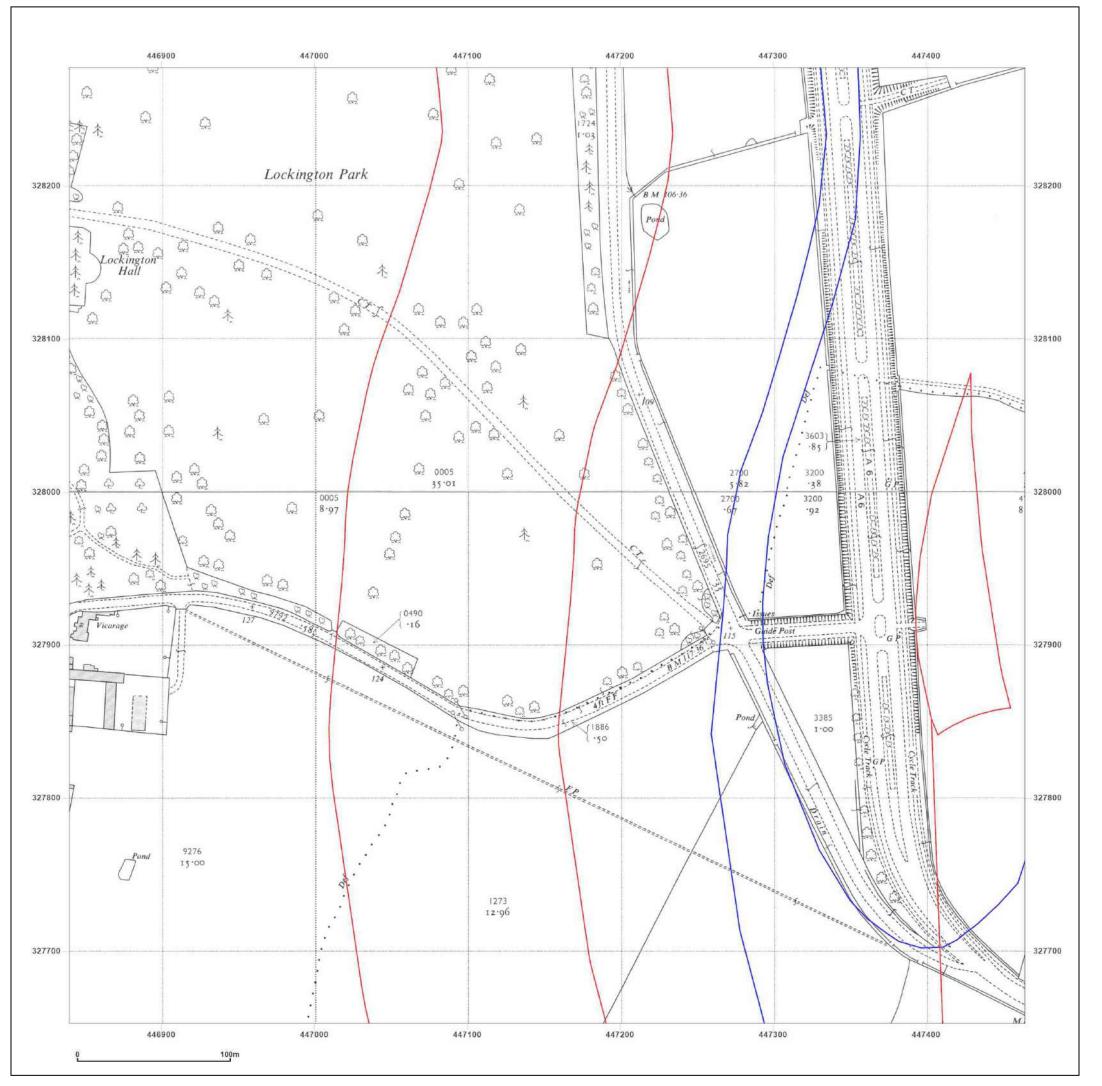




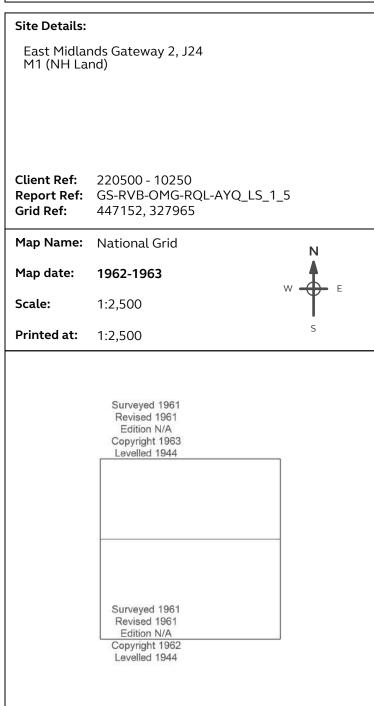
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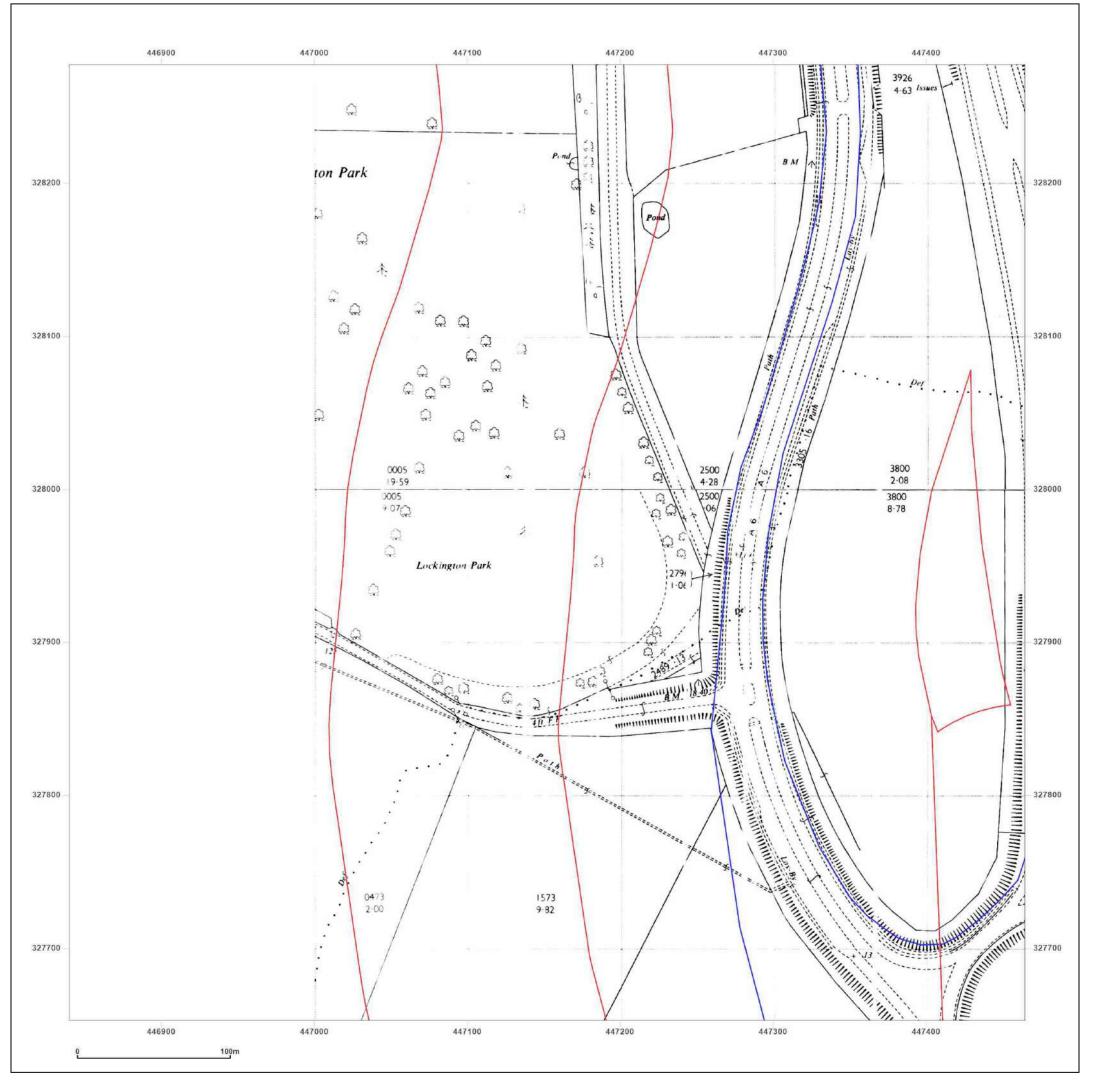




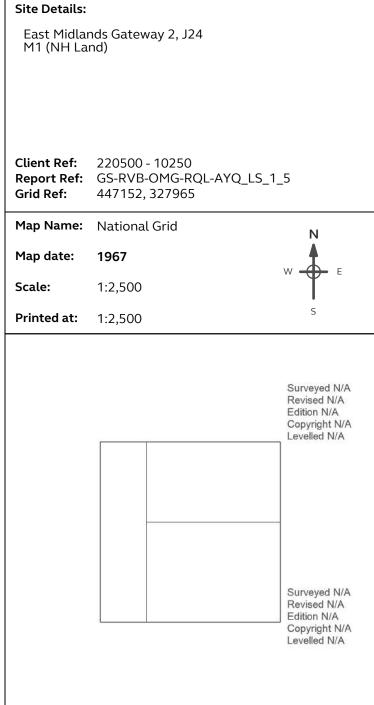
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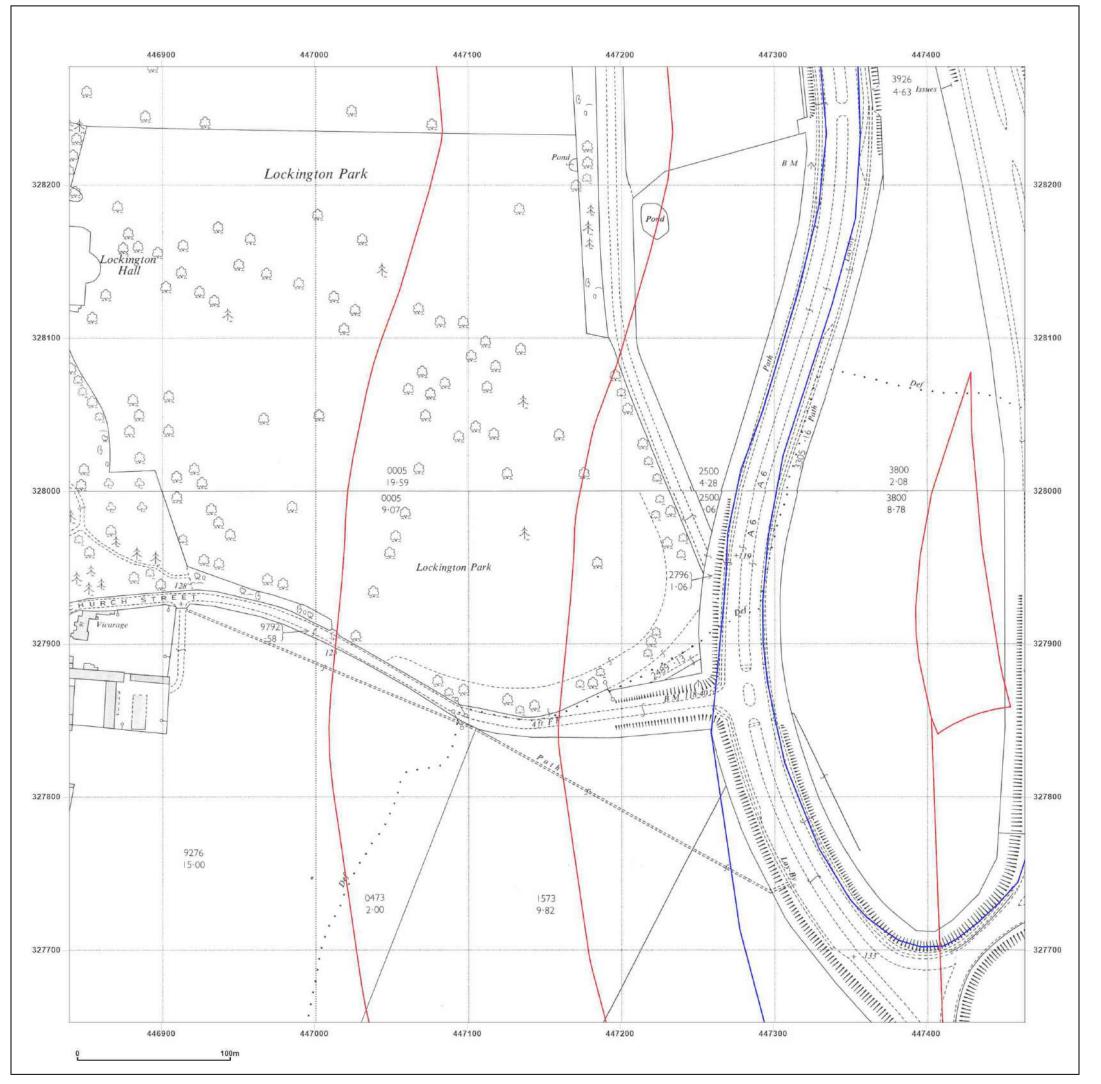




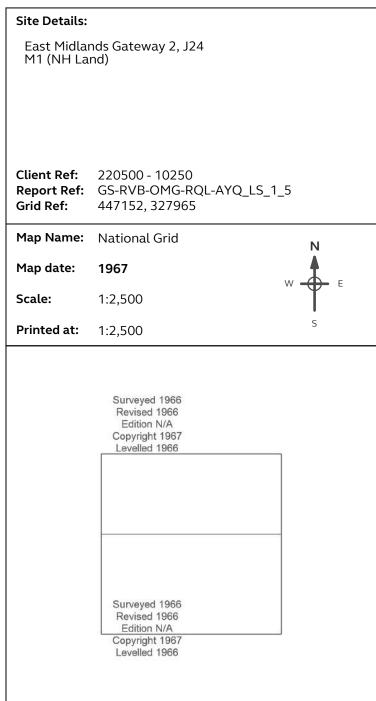
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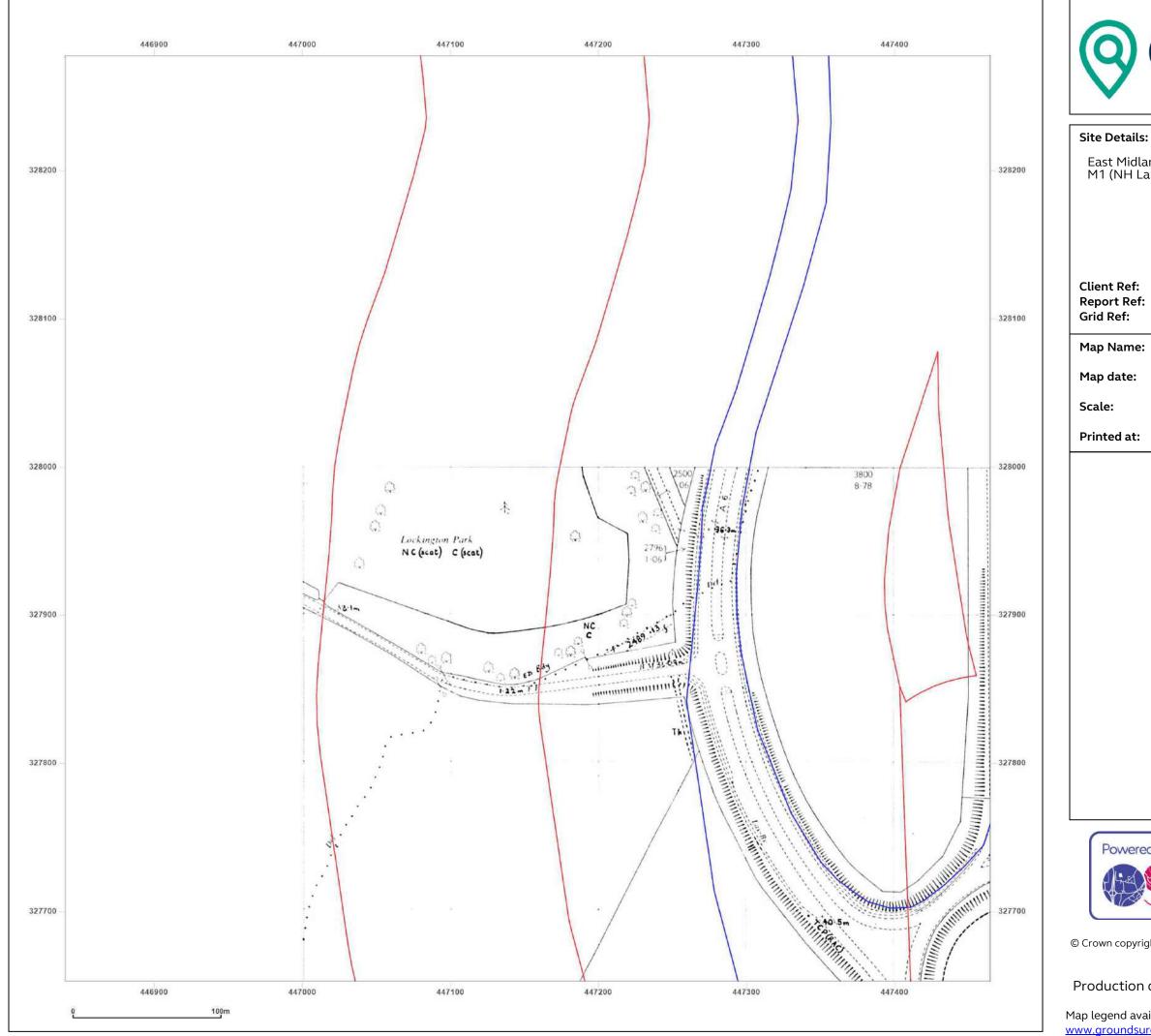




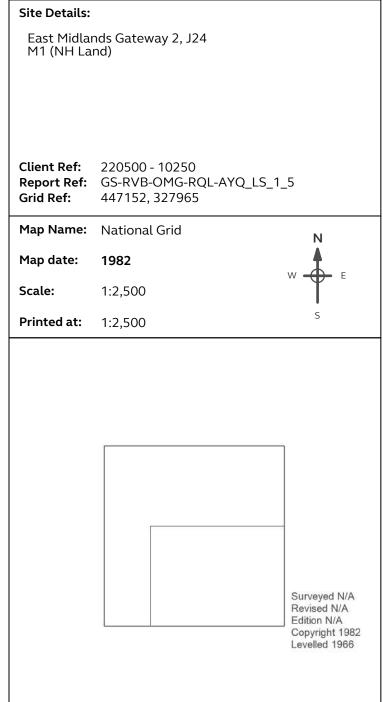
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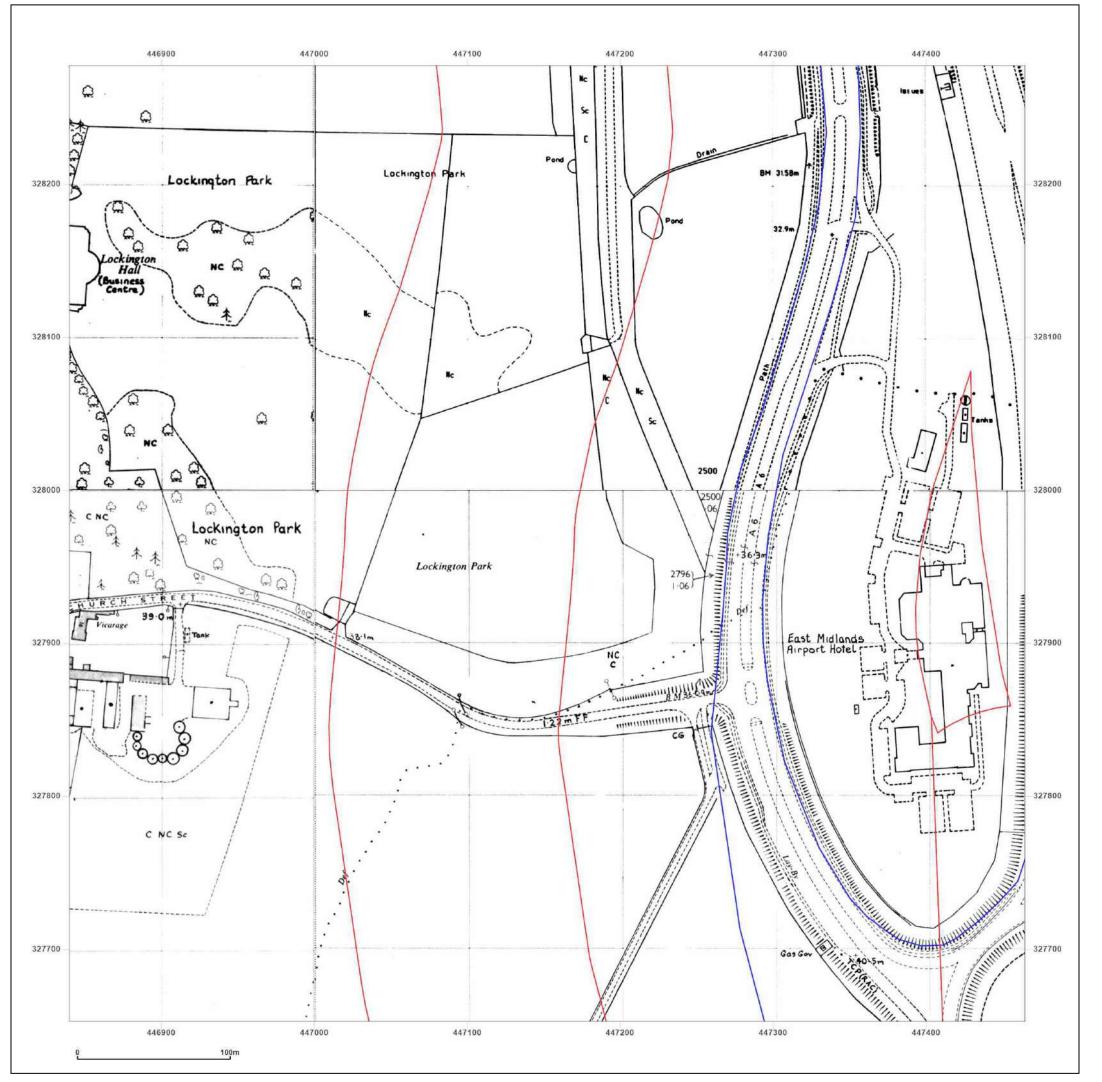




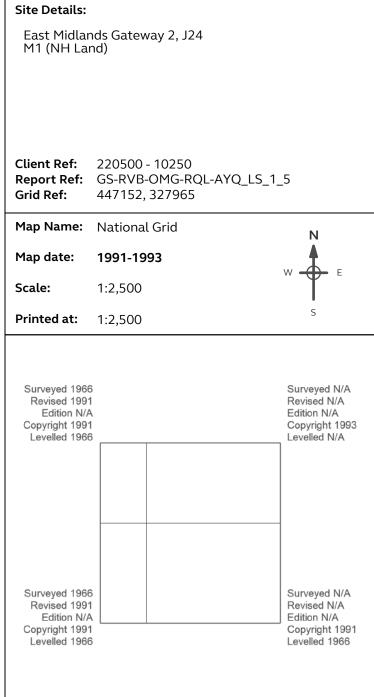
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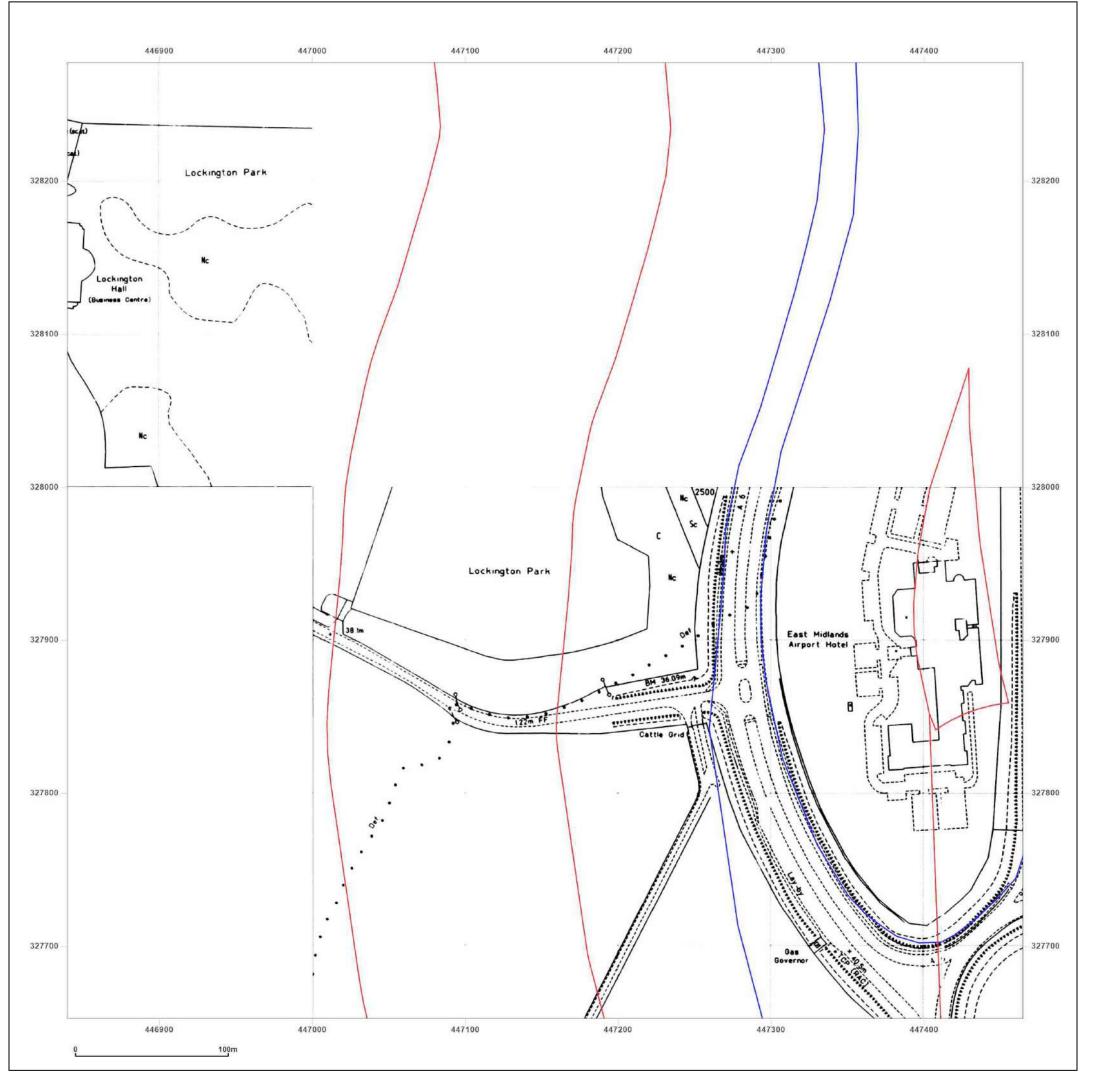




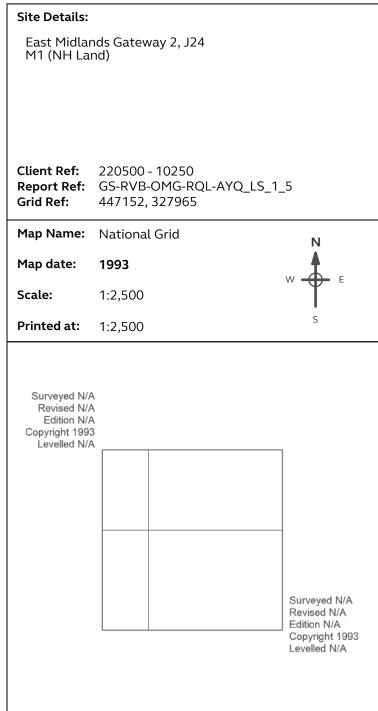
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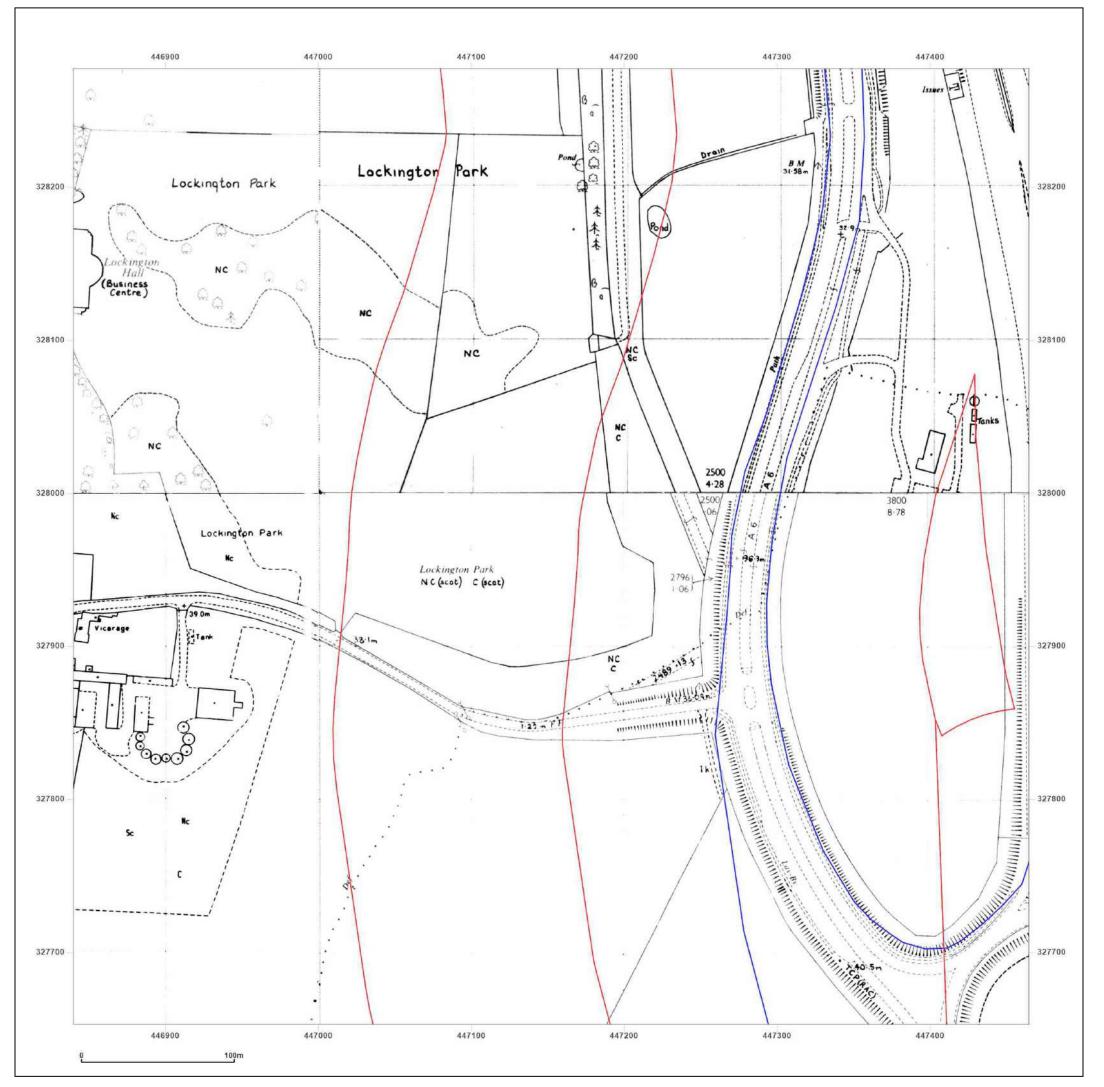




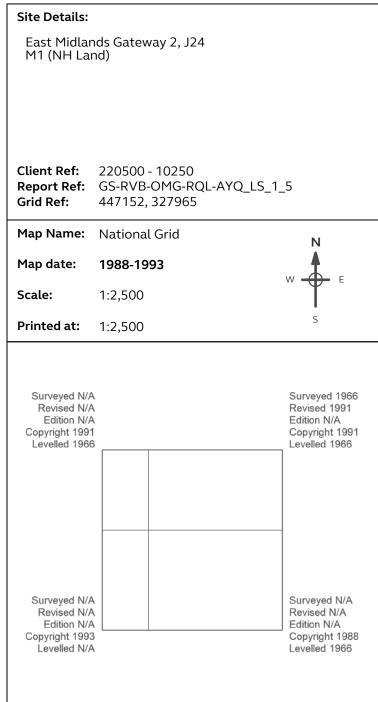
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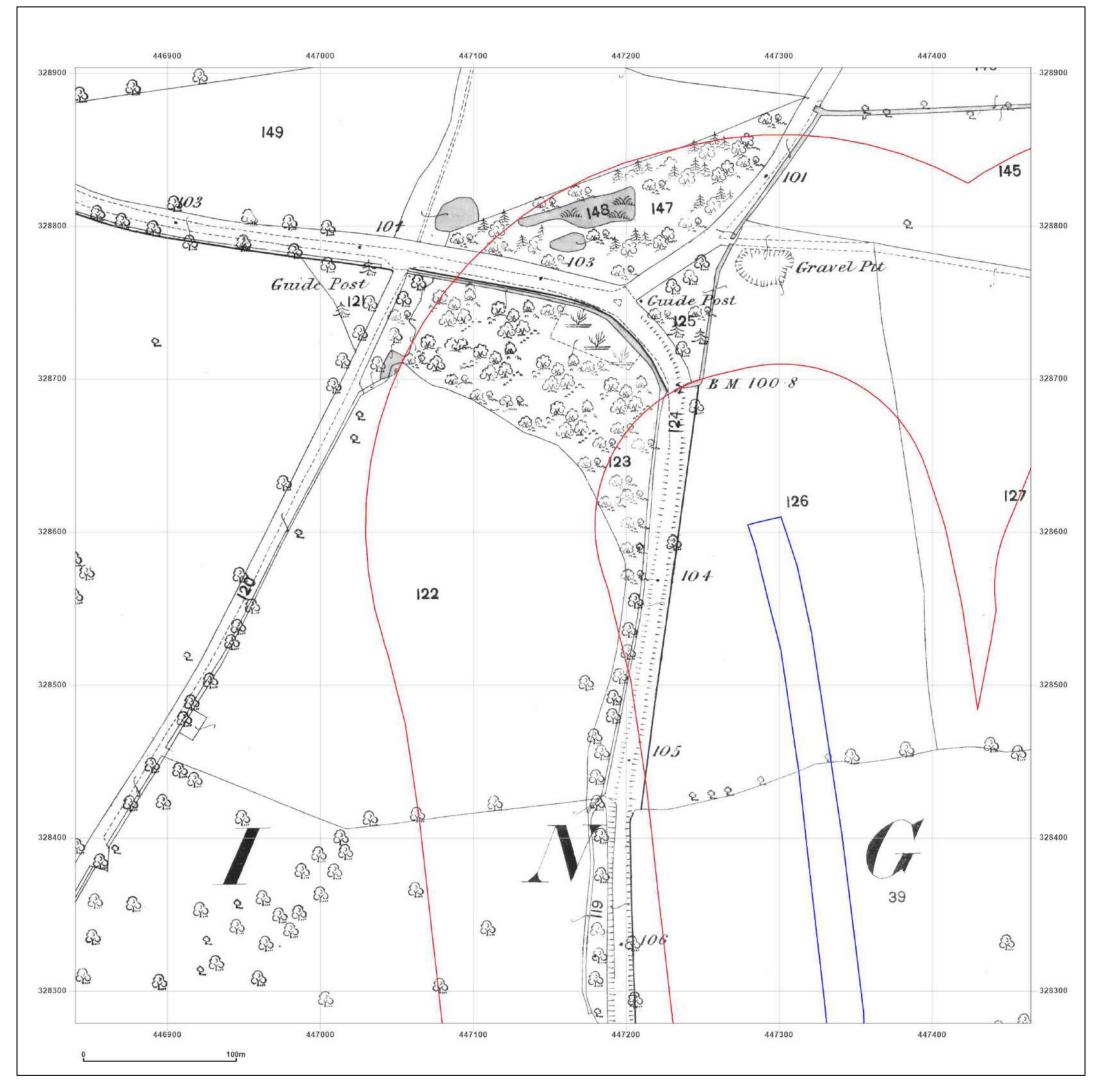




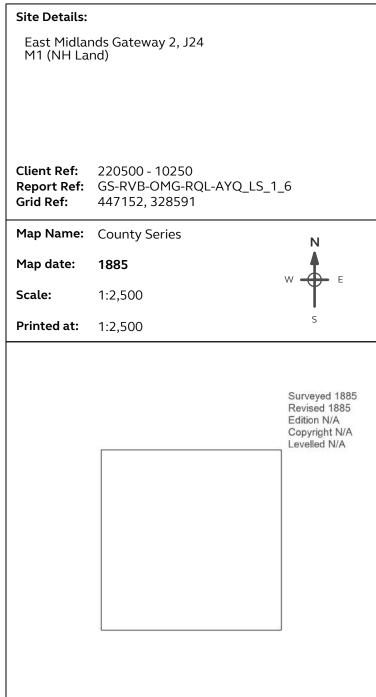
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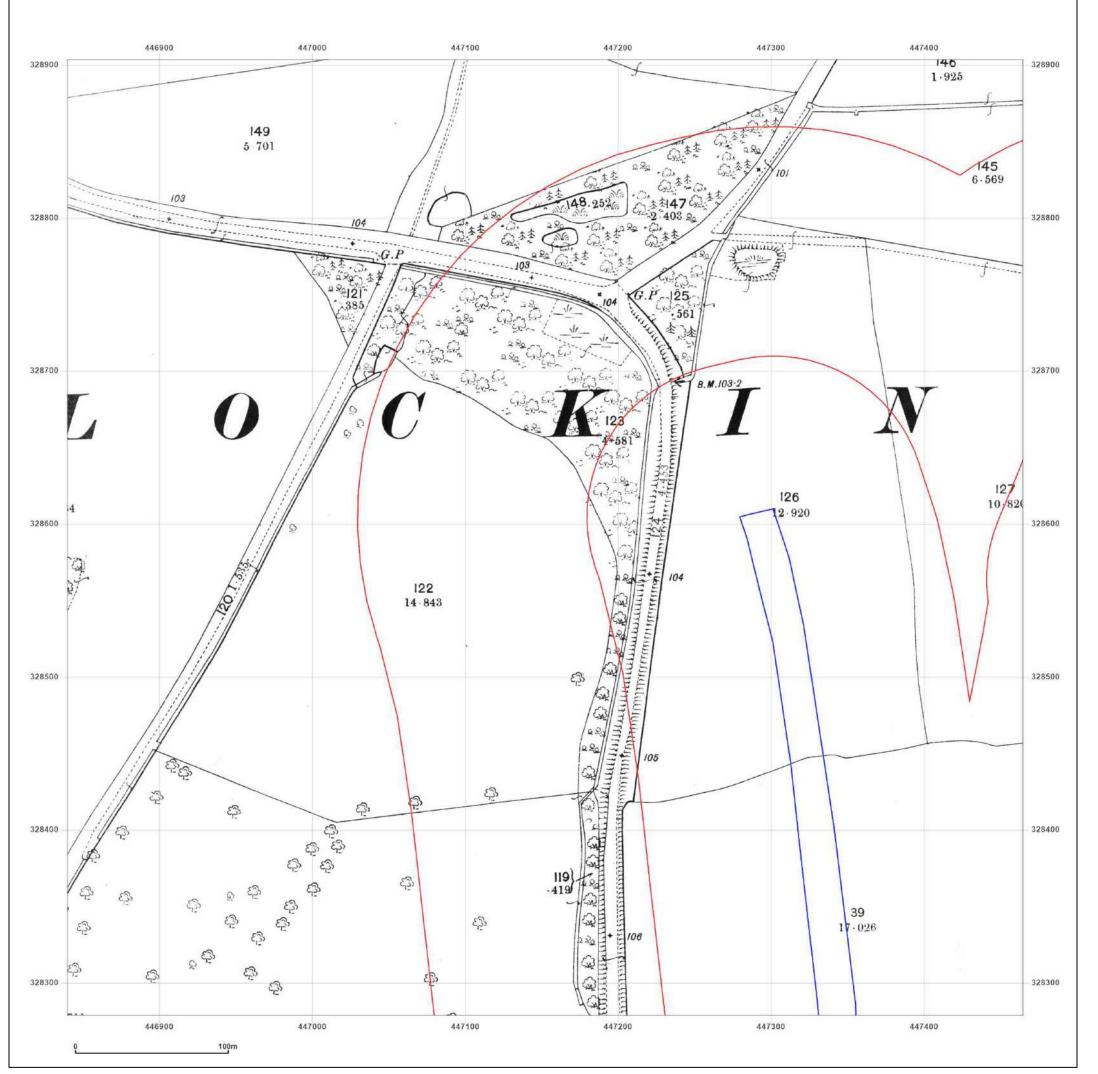




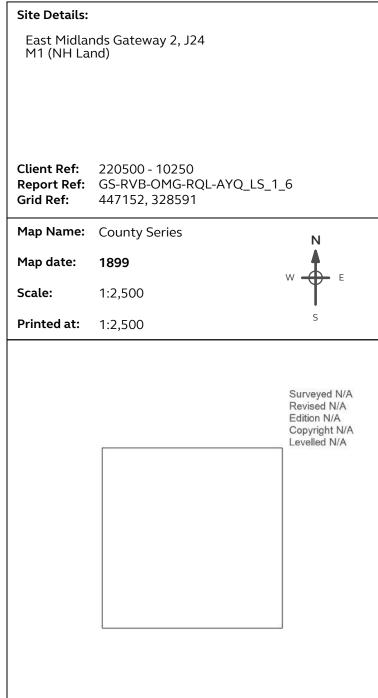
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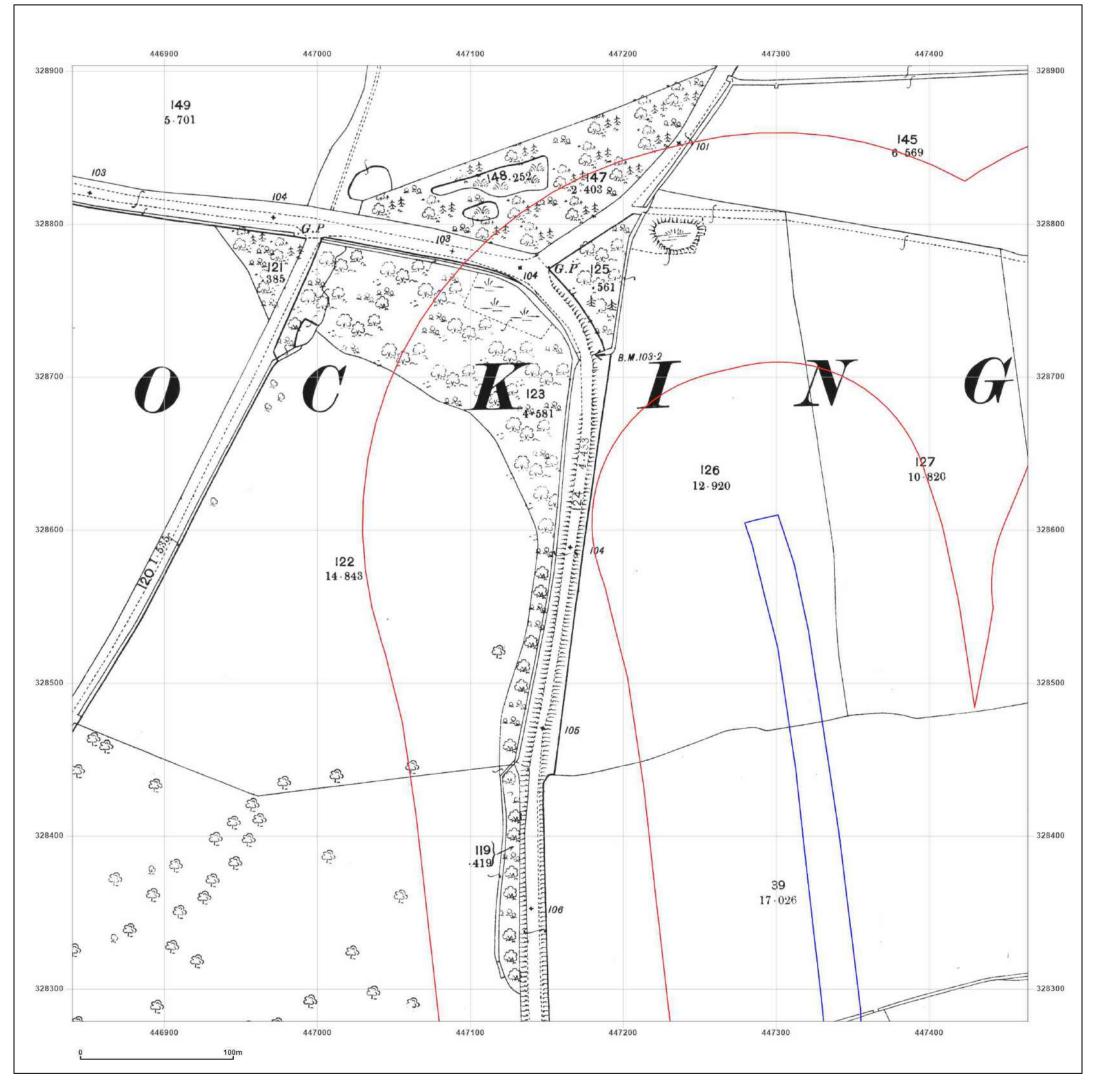




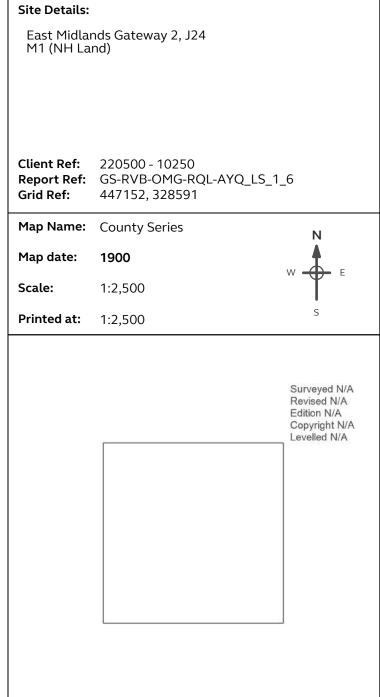
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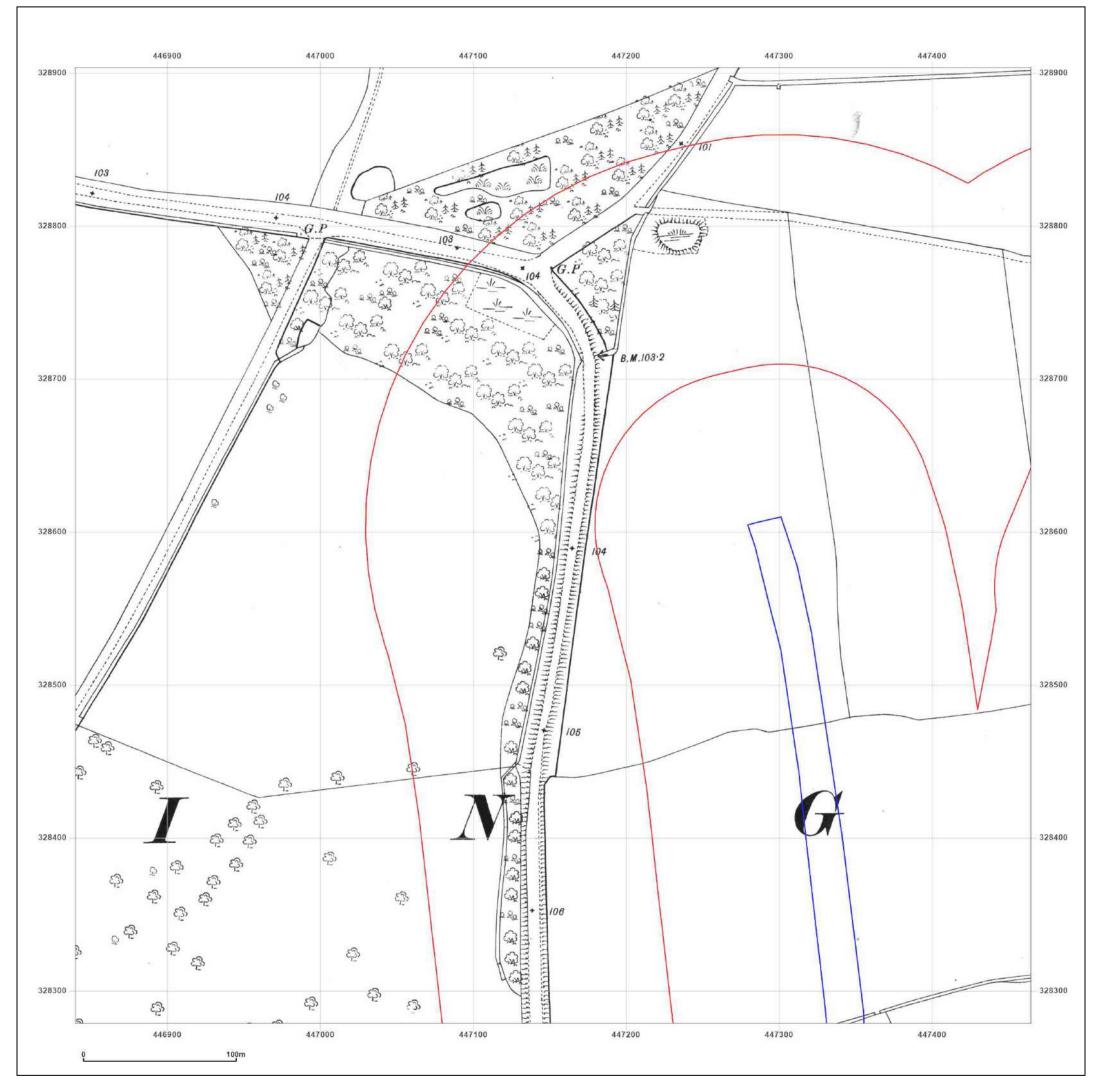




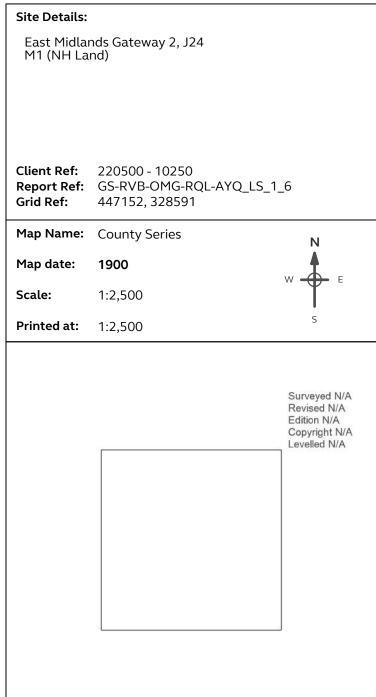
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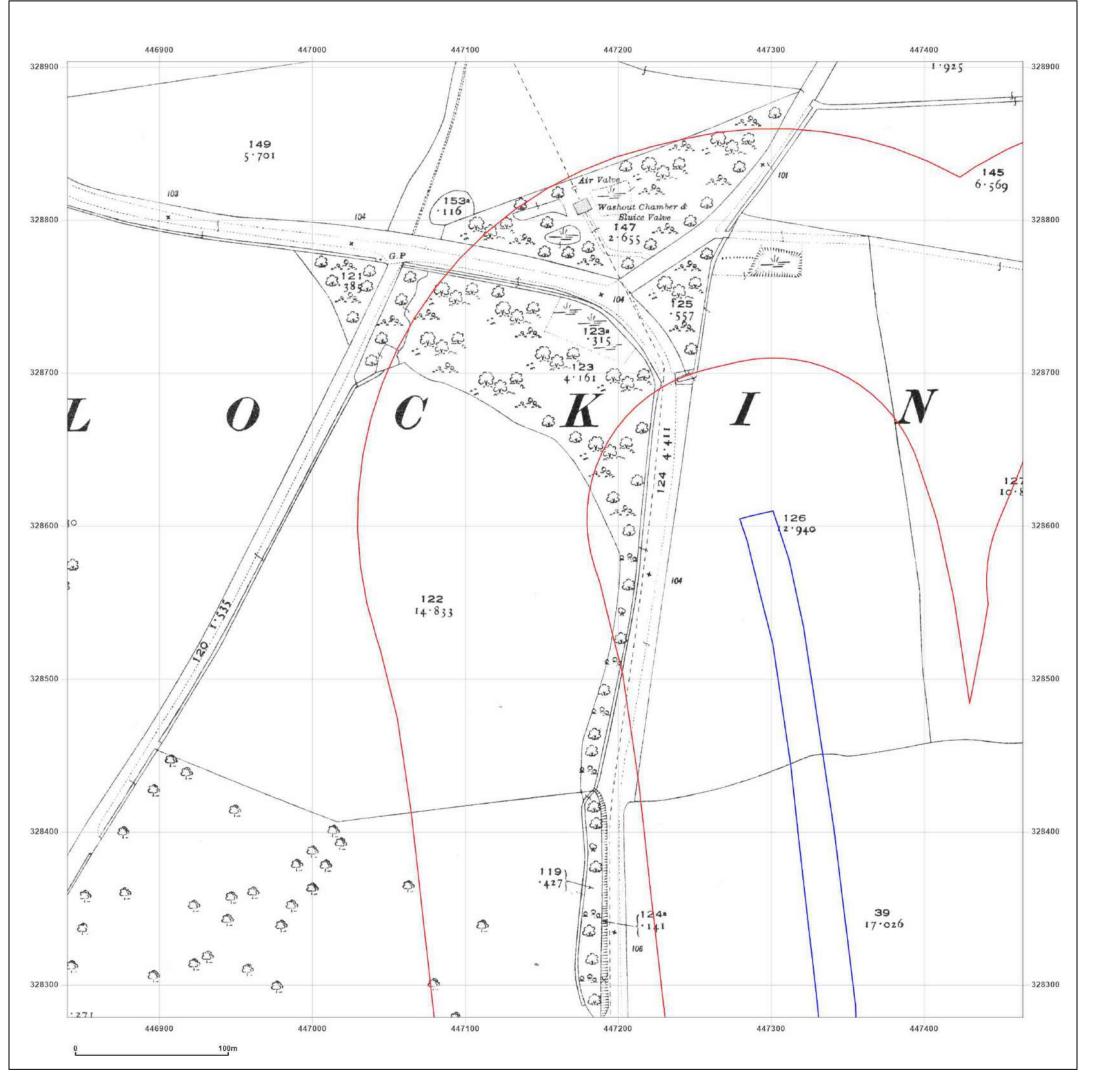




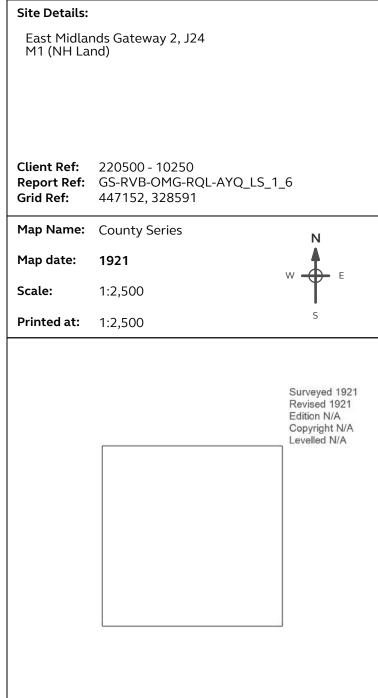
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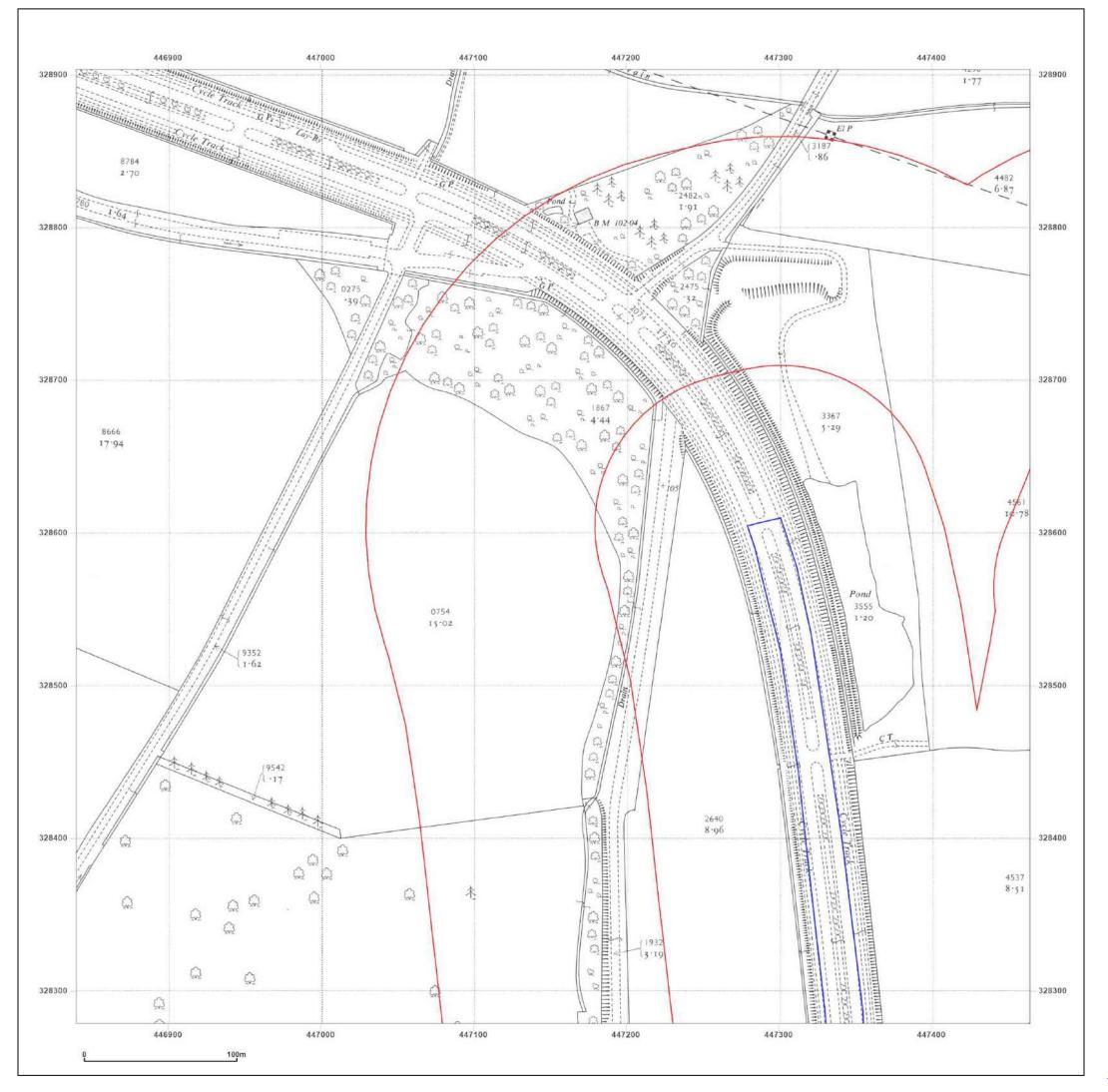




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Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_6

Grid Ref: 447152, 328591

Map Name: National Grid

Map date: 1963

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1961 Revised 1961 Edition N/A Copyright 1963 Levelled 1944

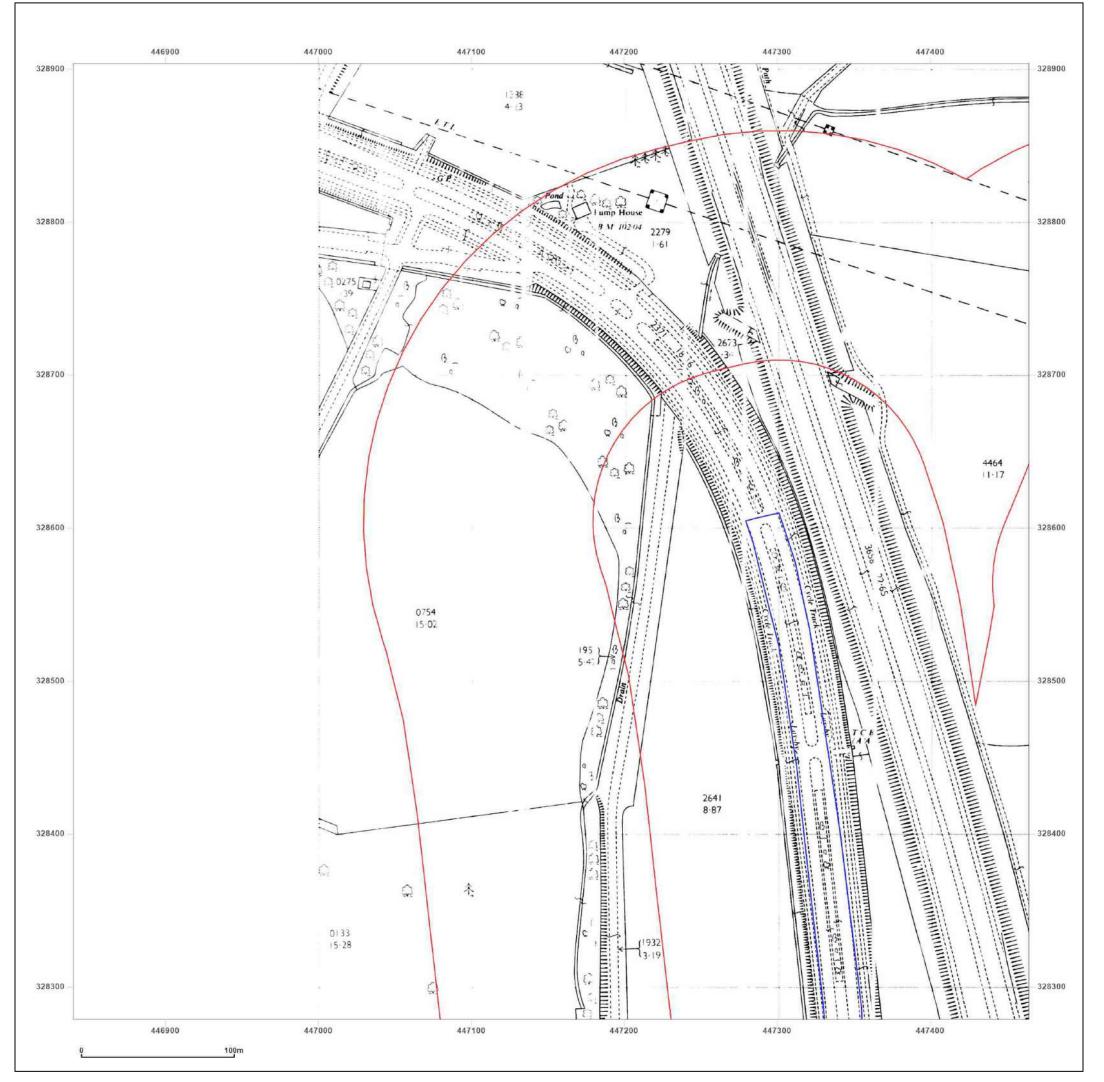


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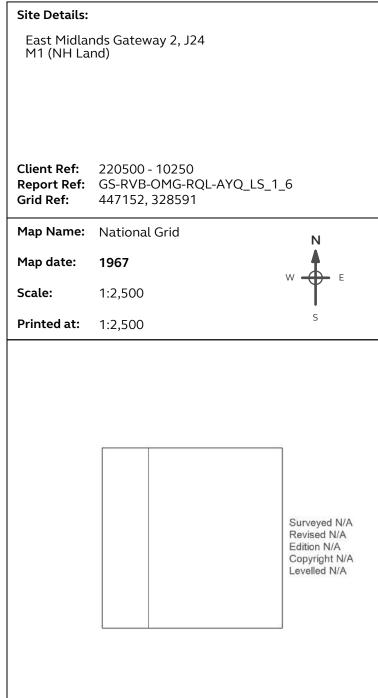
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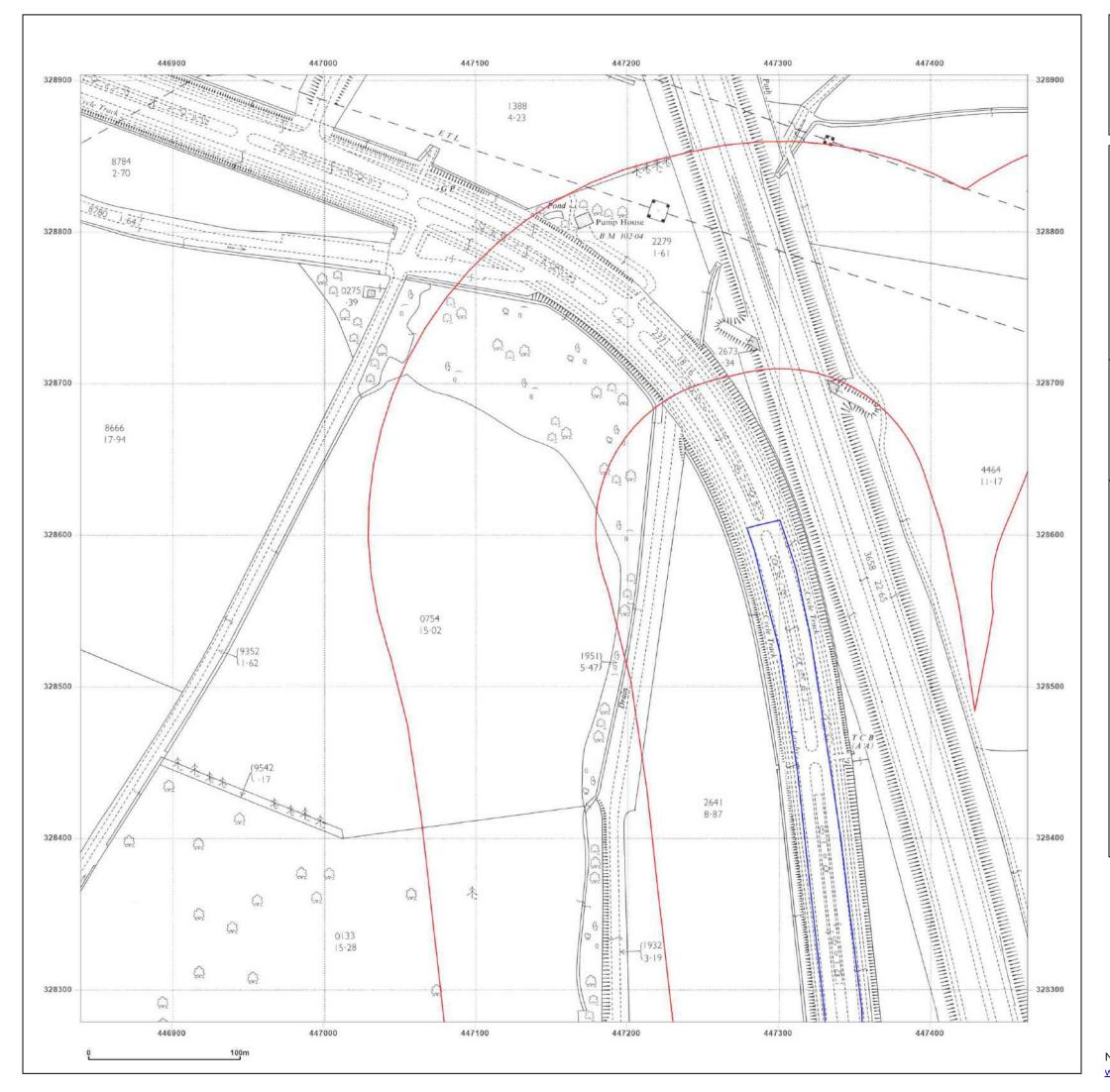




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Production date: 13 December 2024

Map legend available at:





Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_1_6

Grid Ref: 447152, 328591

Map Name: National Grid

Map date: 1967

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1966 Revised 1966 Edition N/A Copyright 1967 Levelled 1966

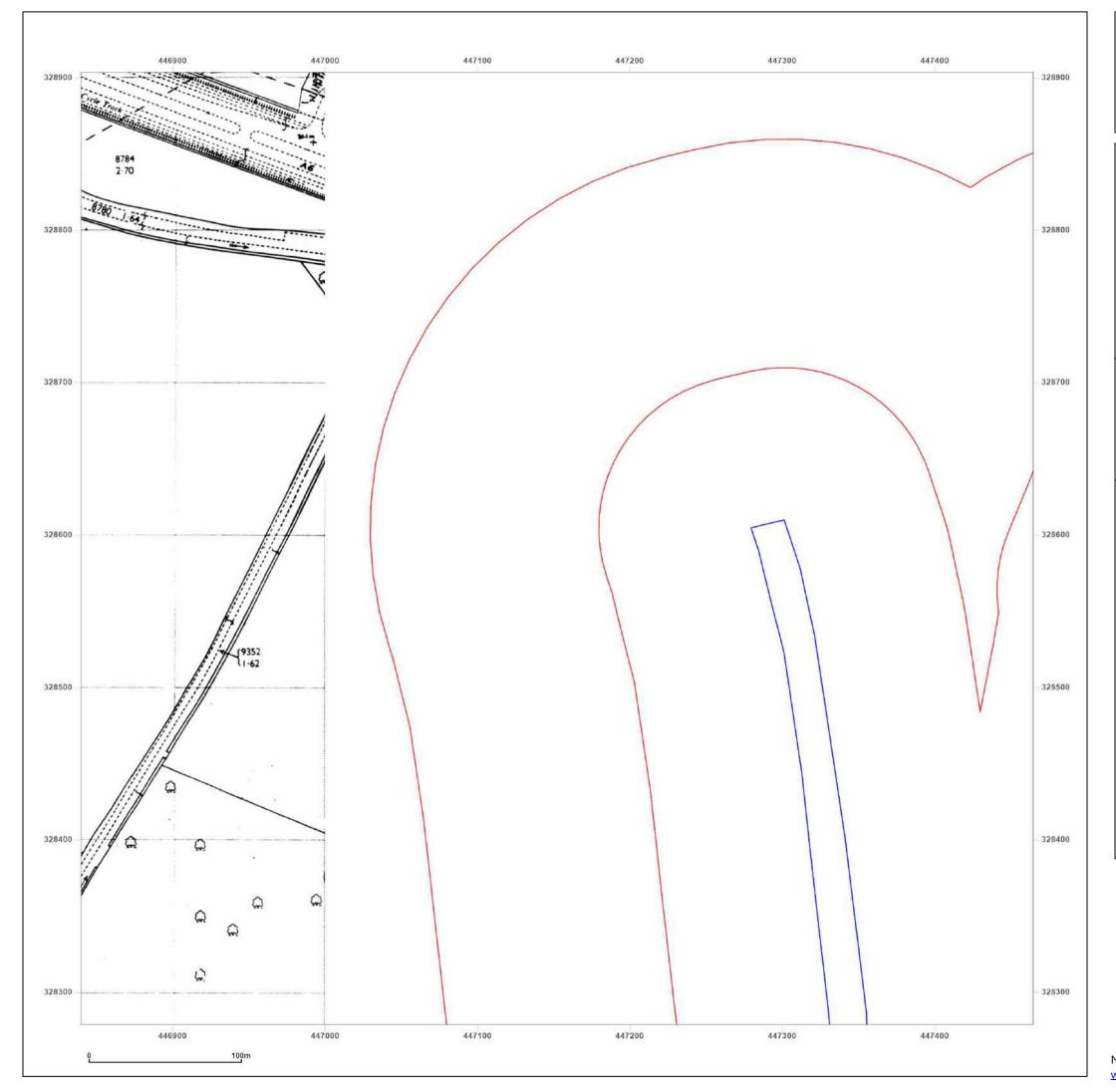


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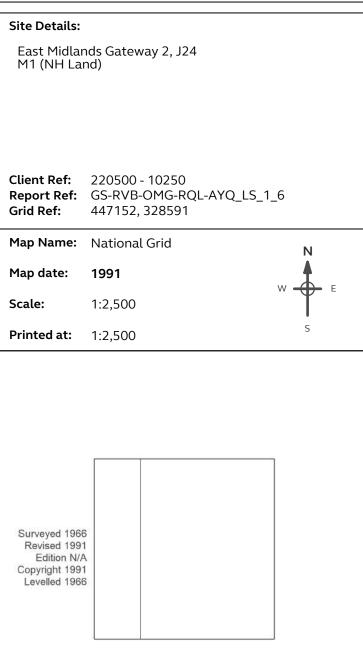
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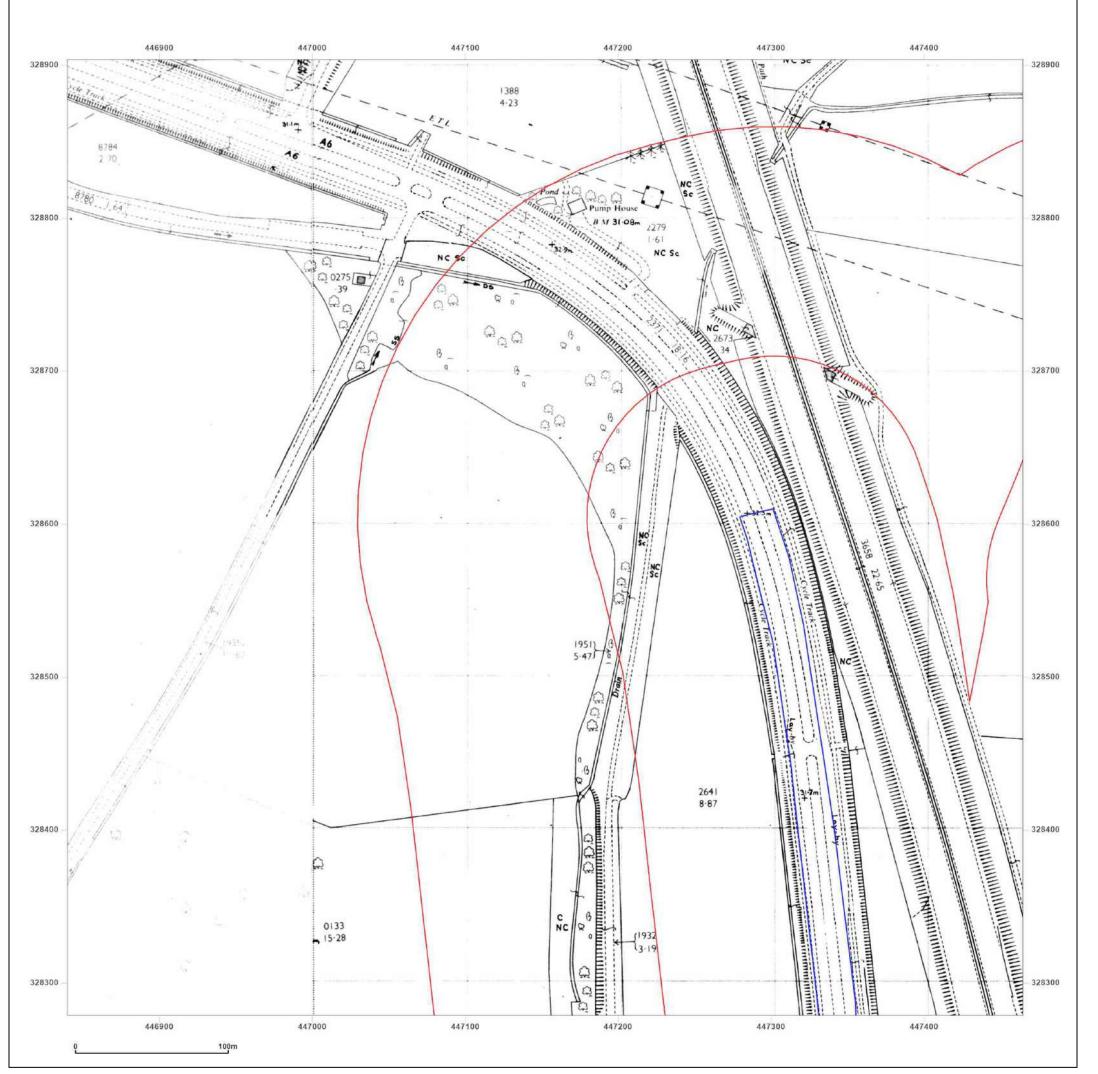




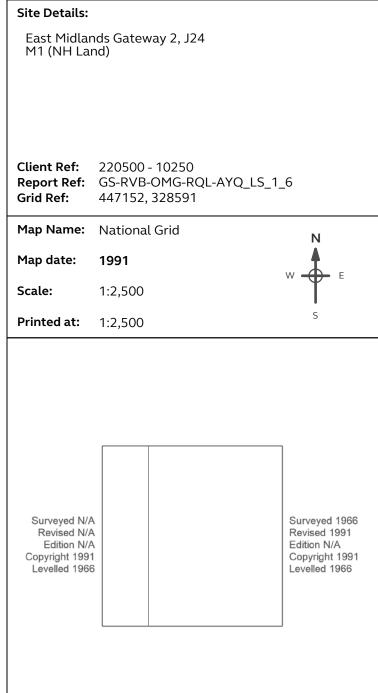
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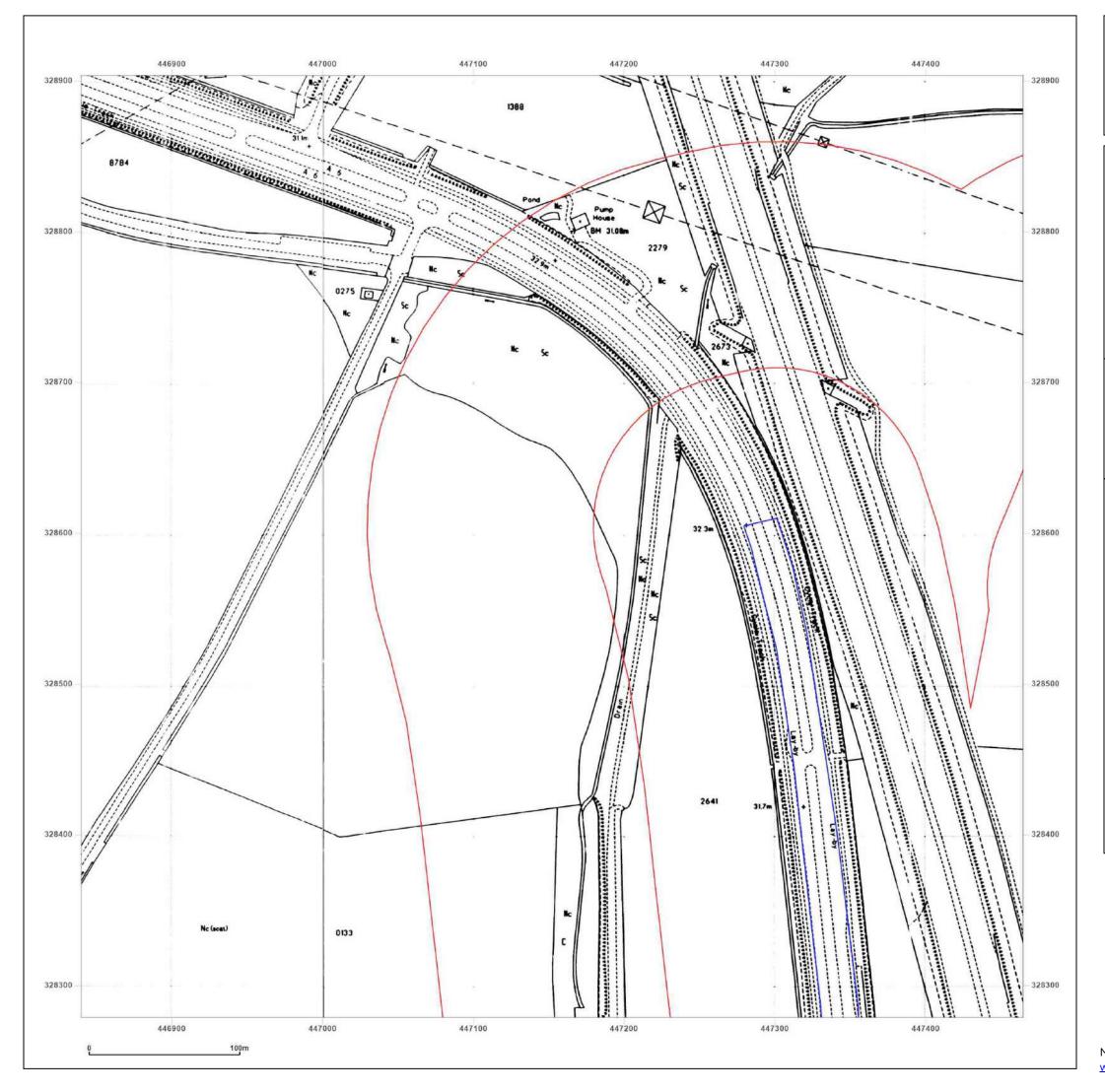




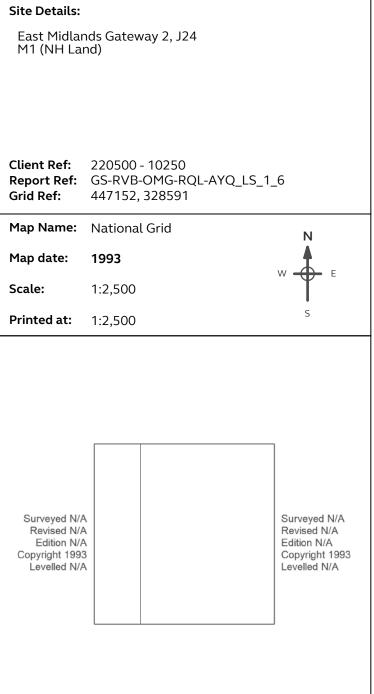
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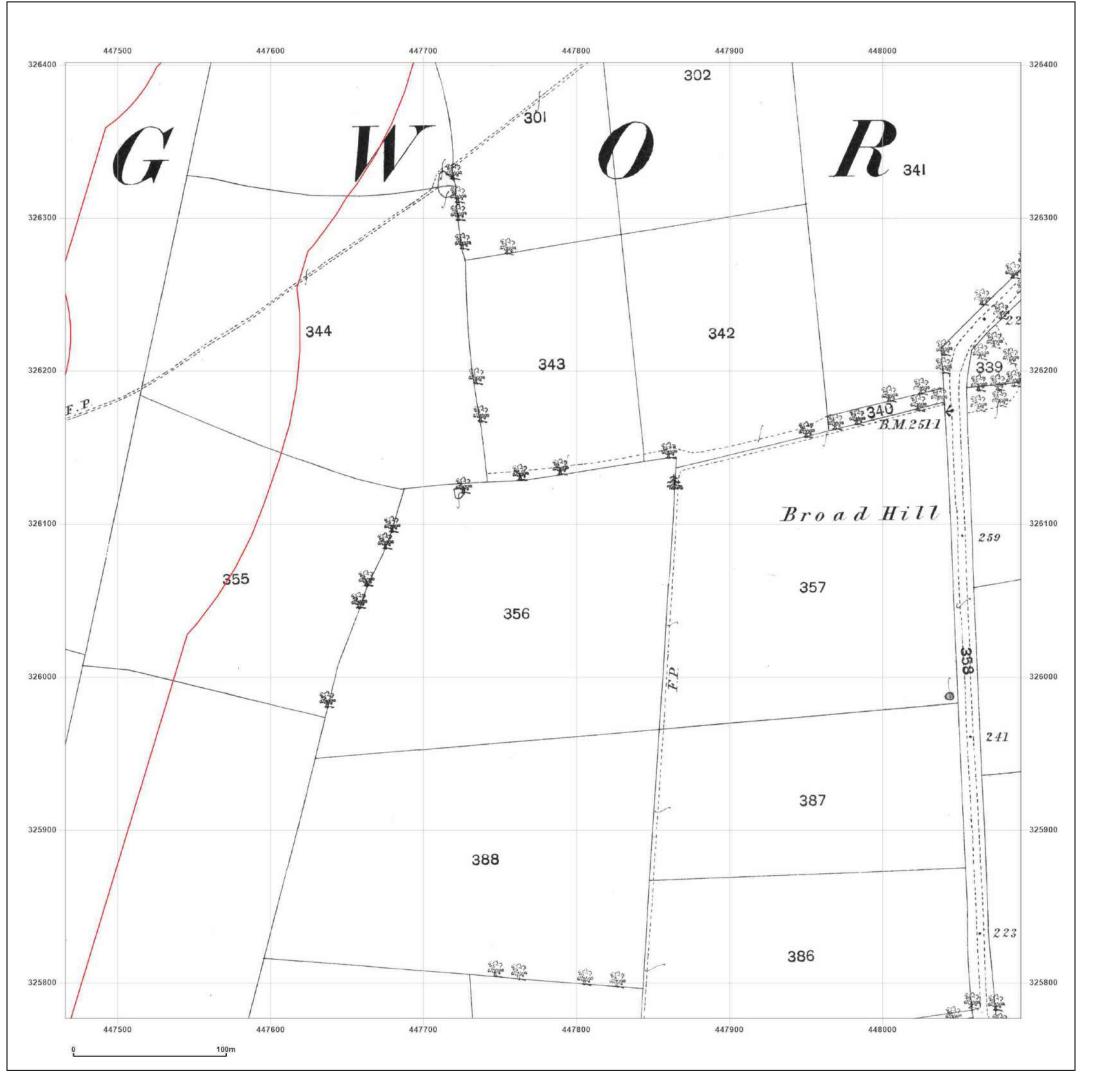




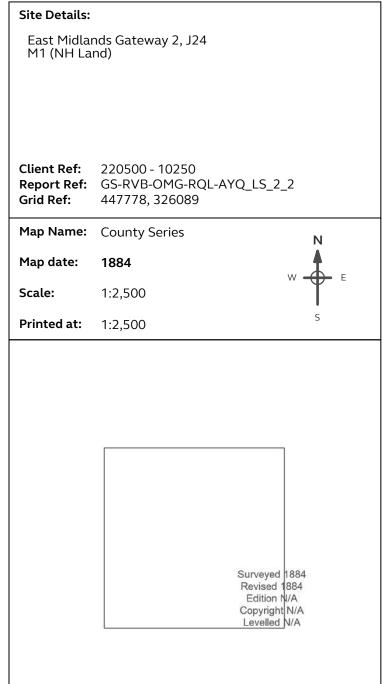
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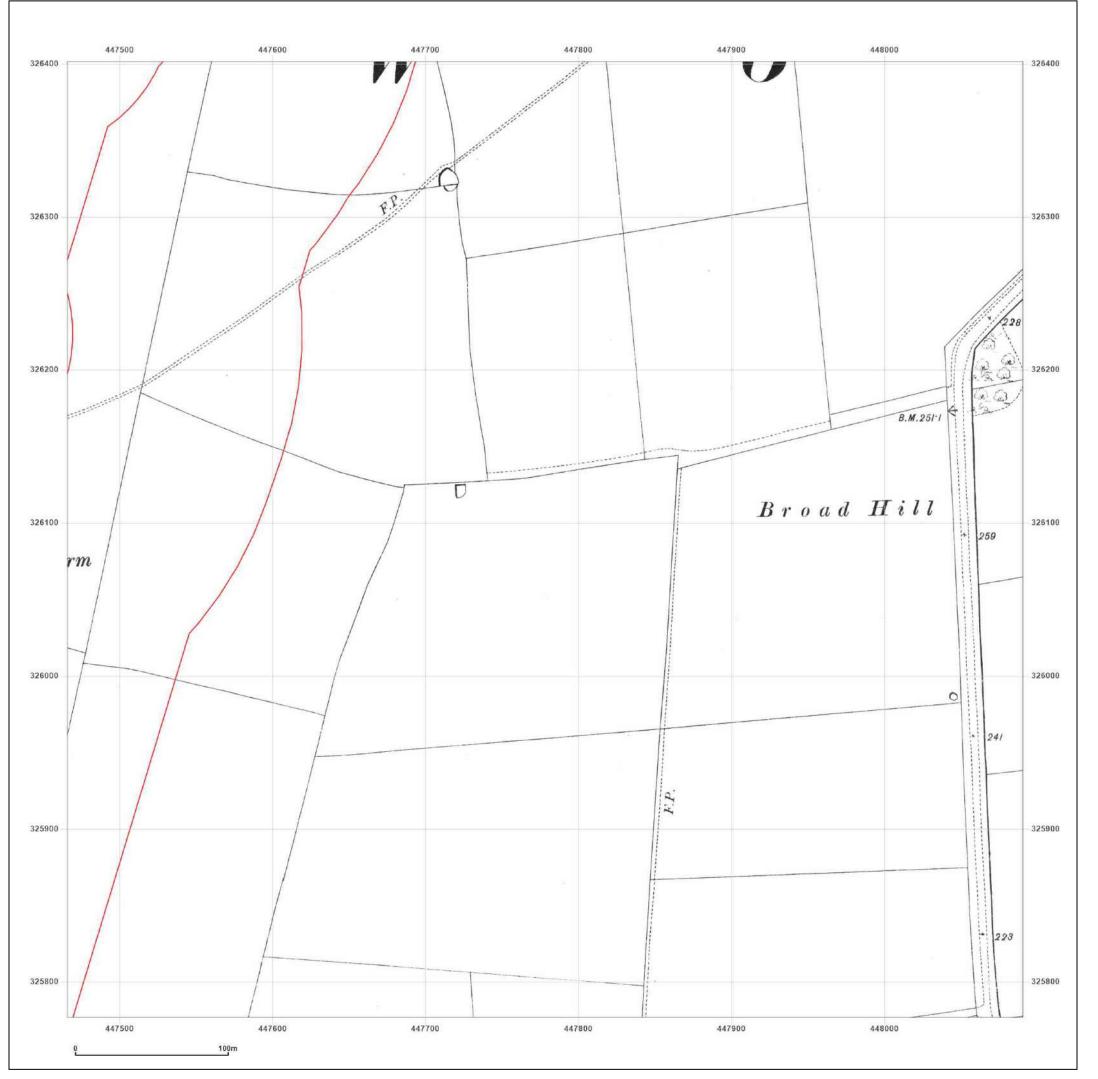




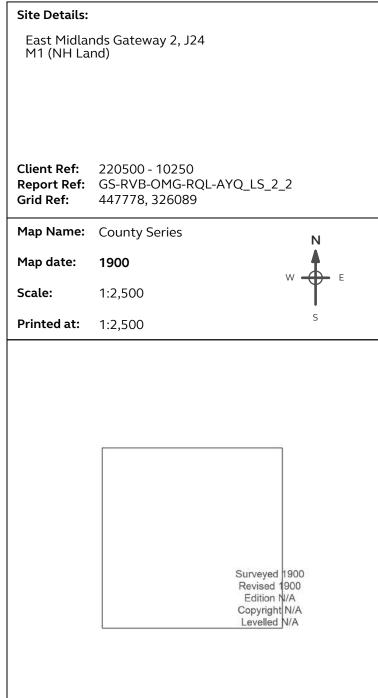
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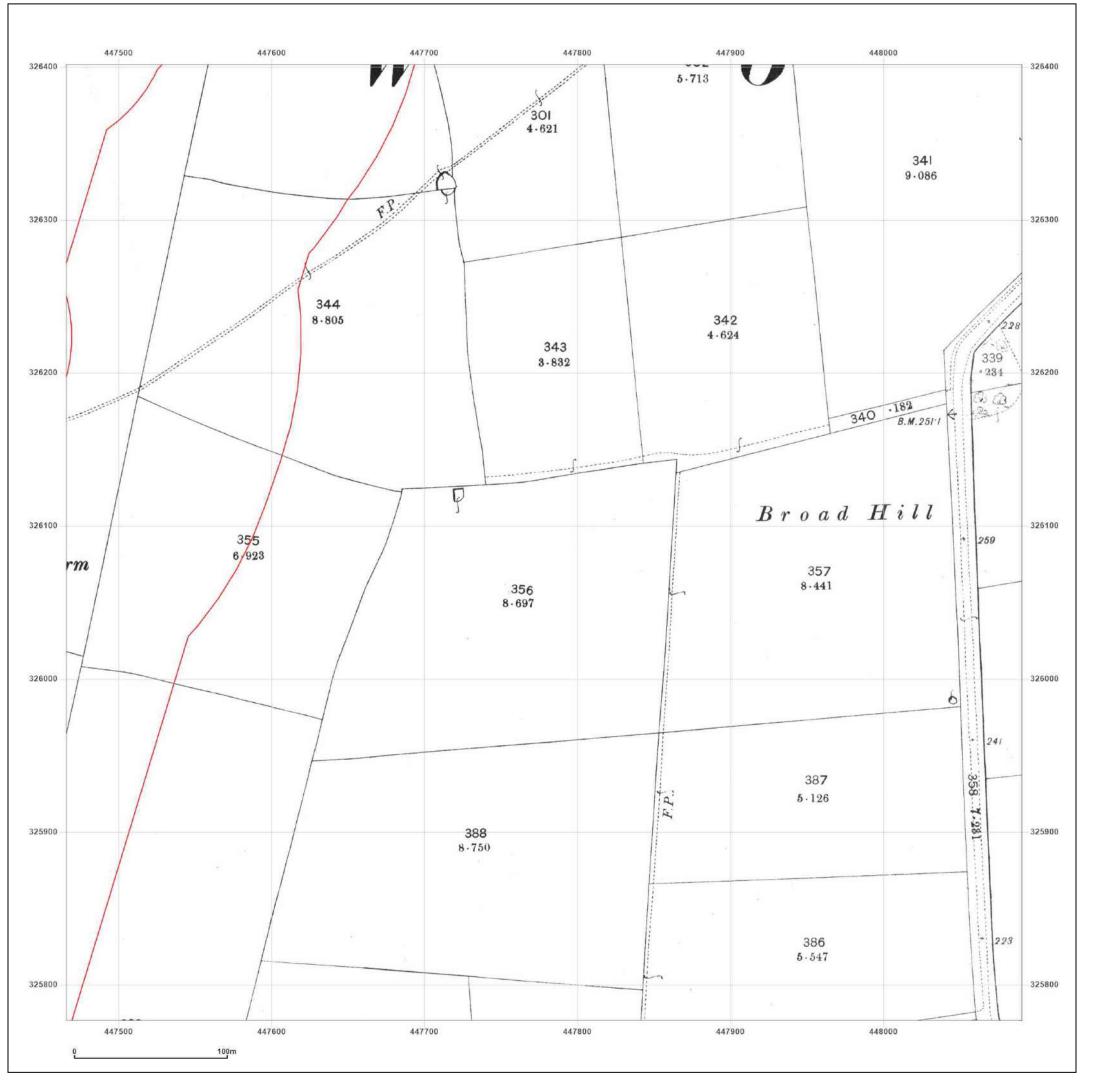




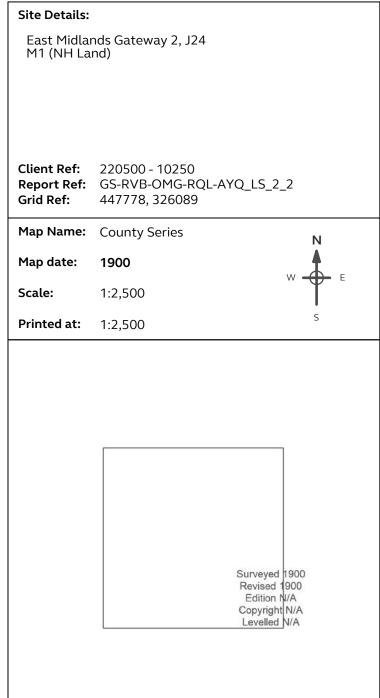
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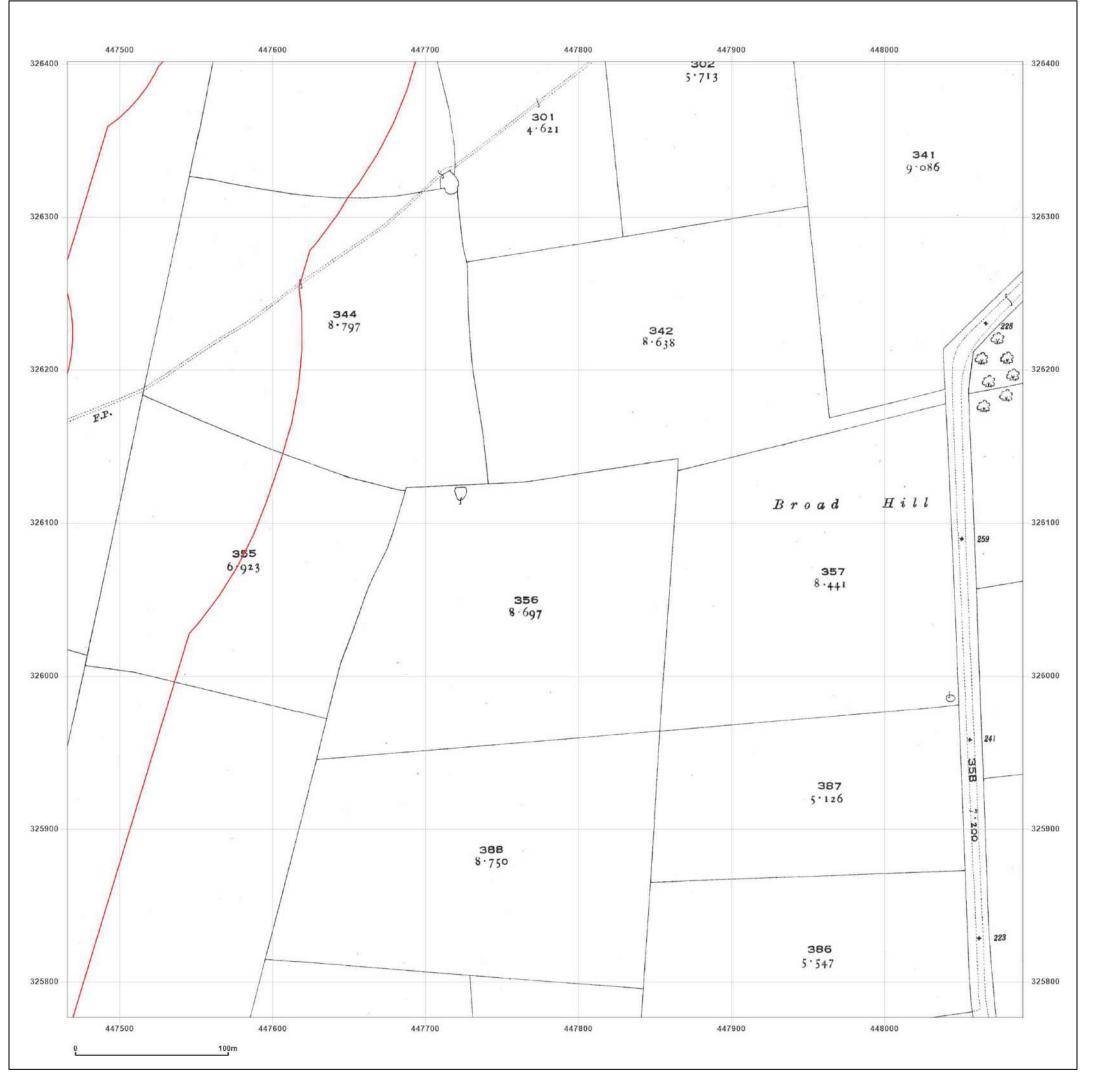




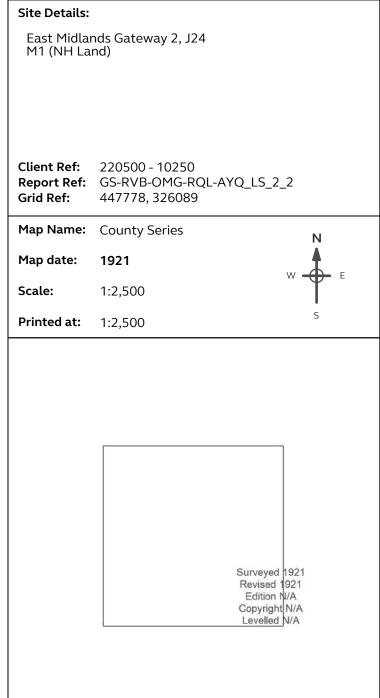
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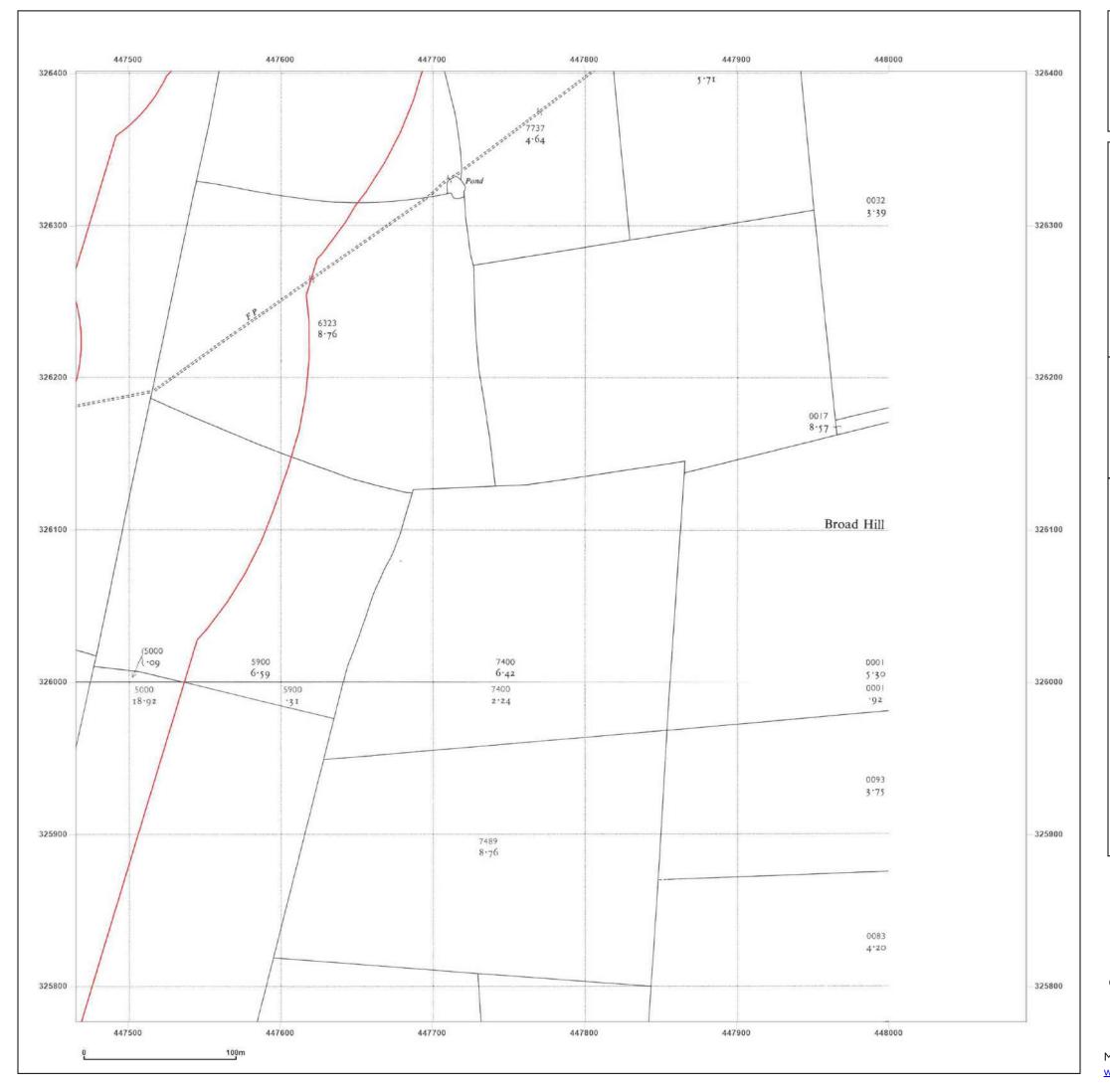




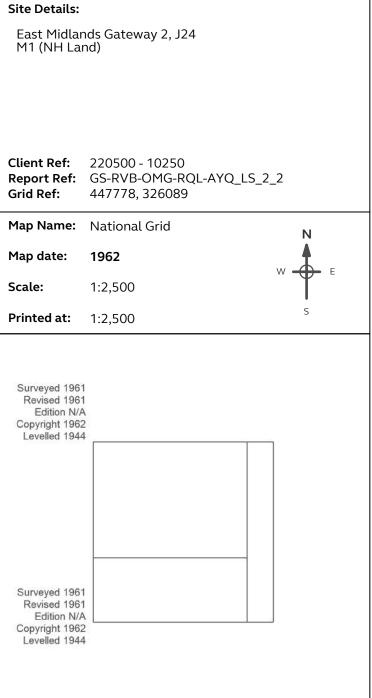
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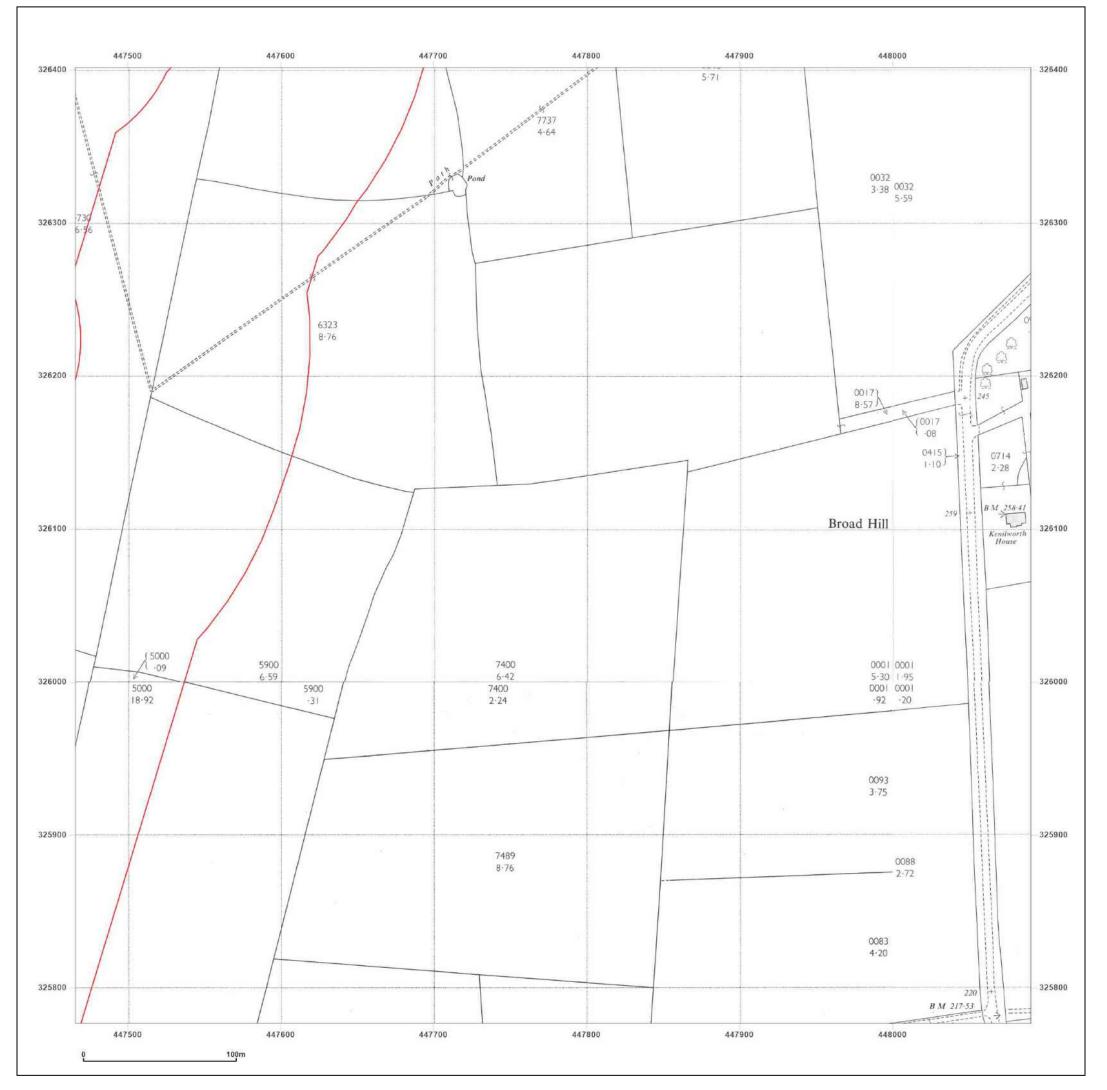




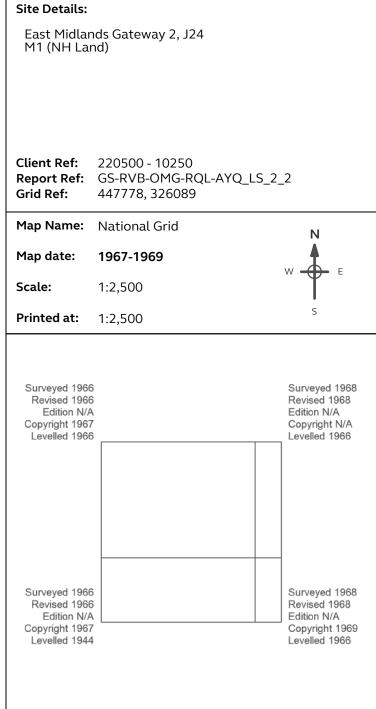
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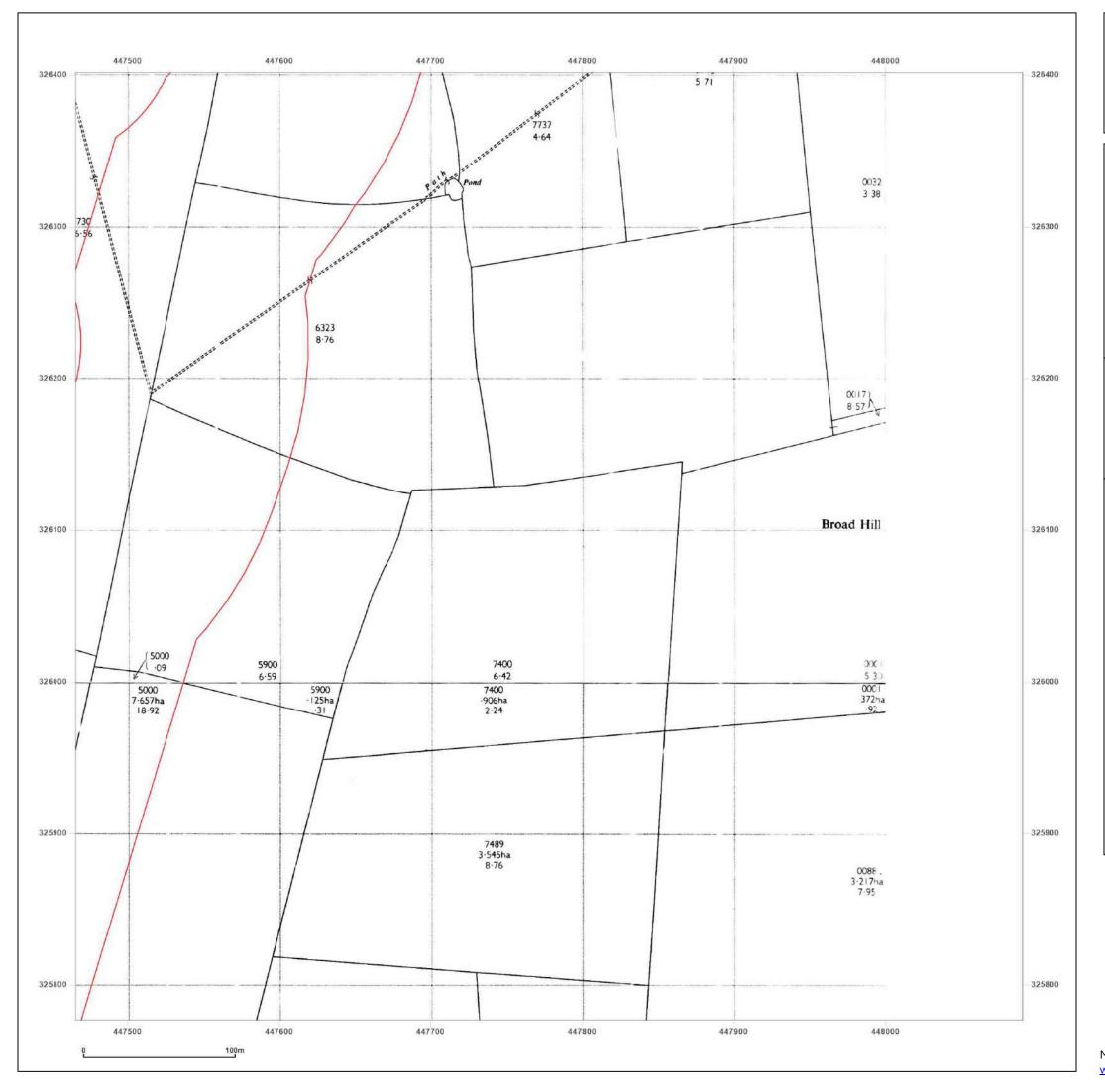




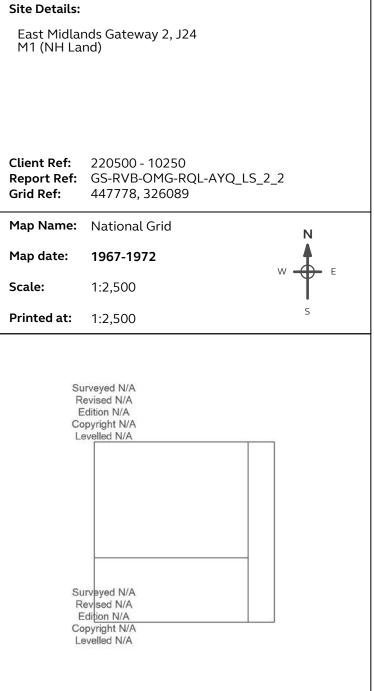
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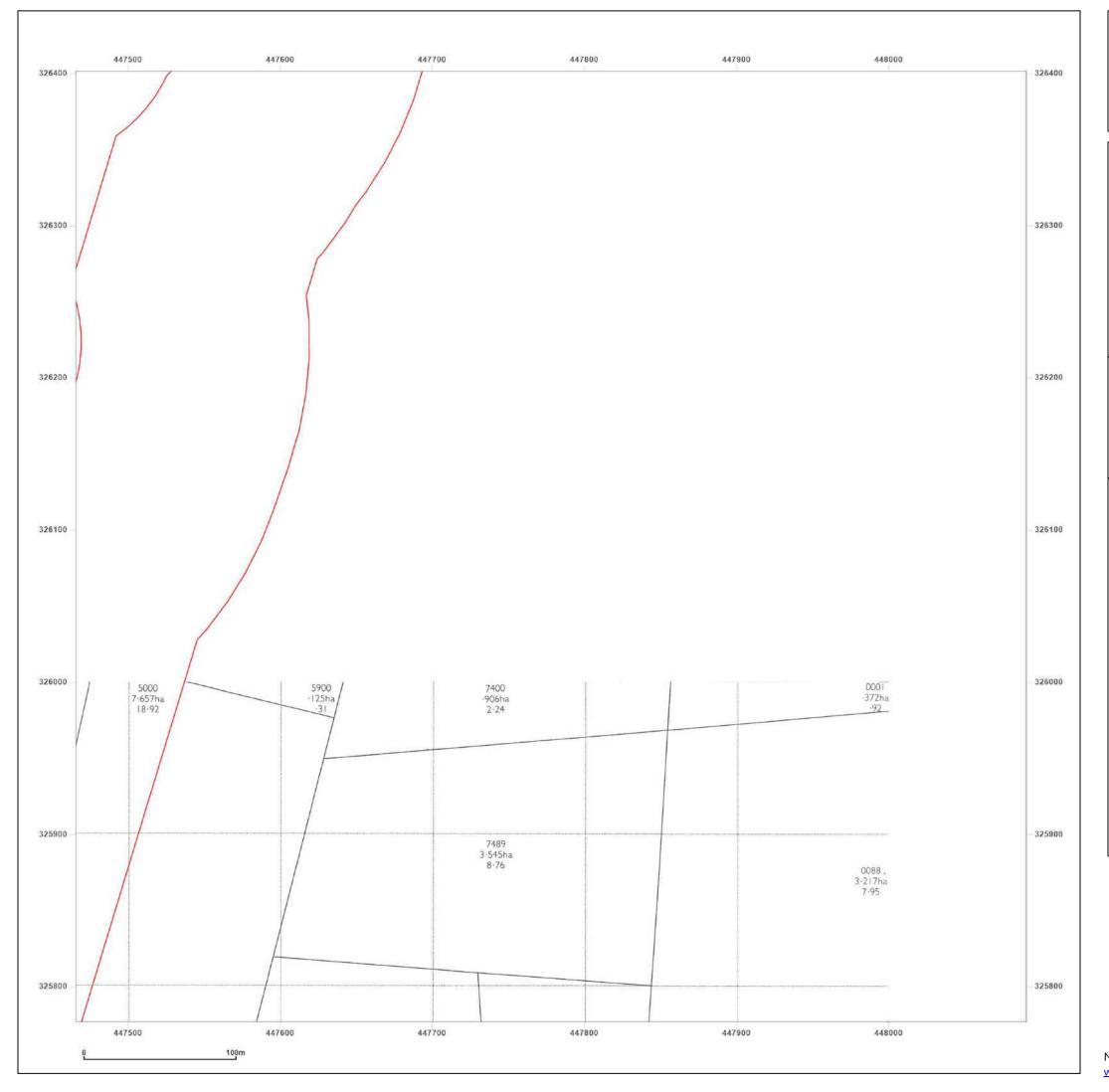




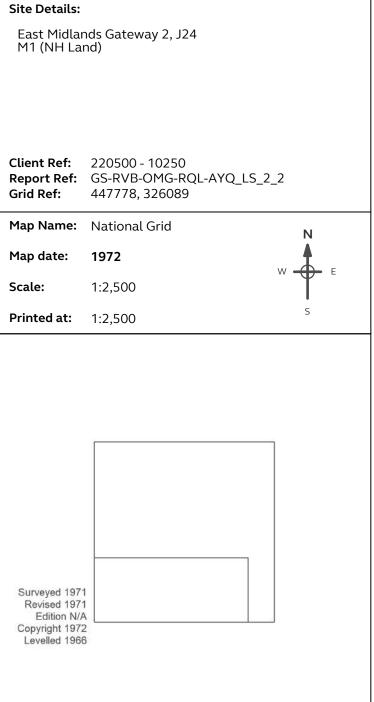
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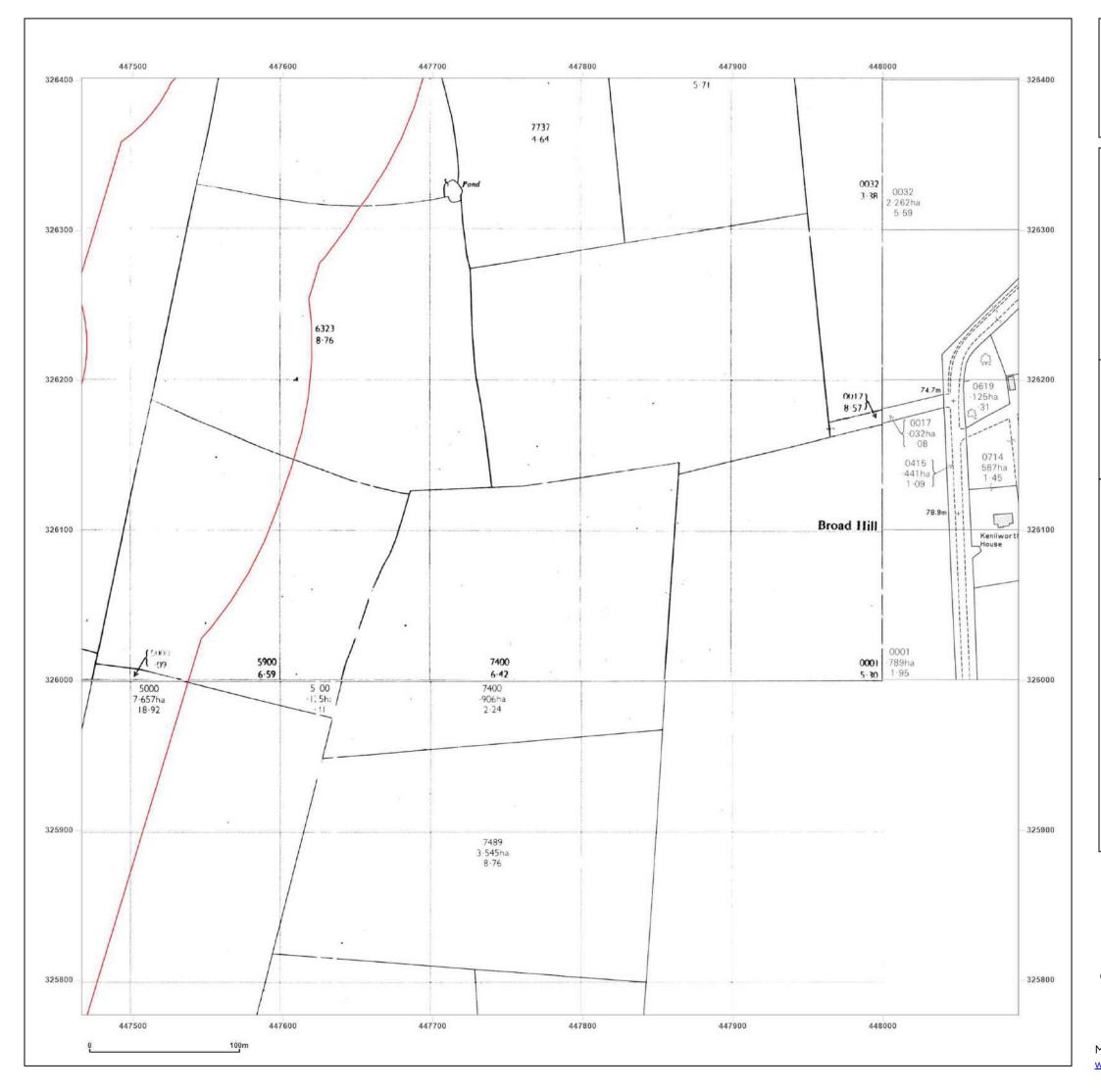




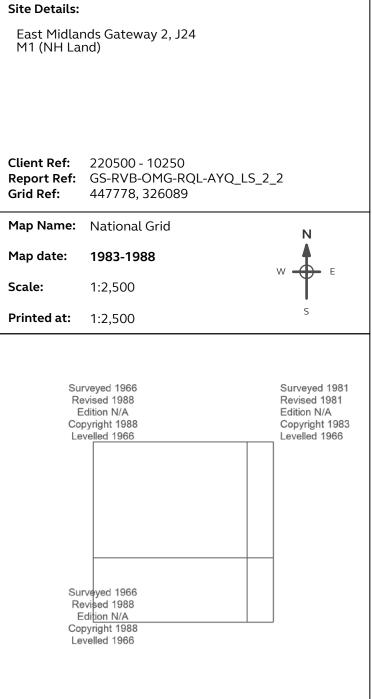
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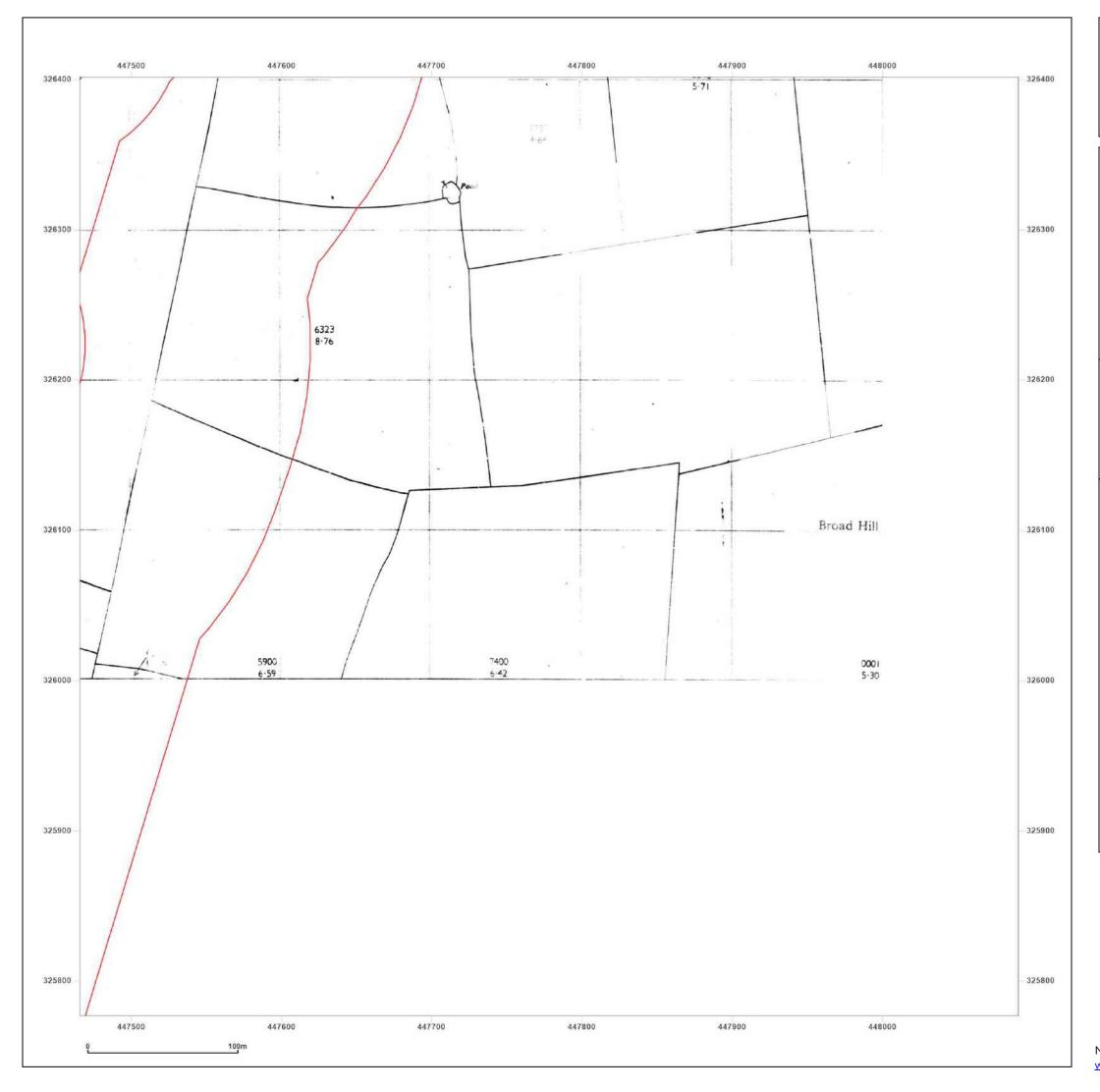




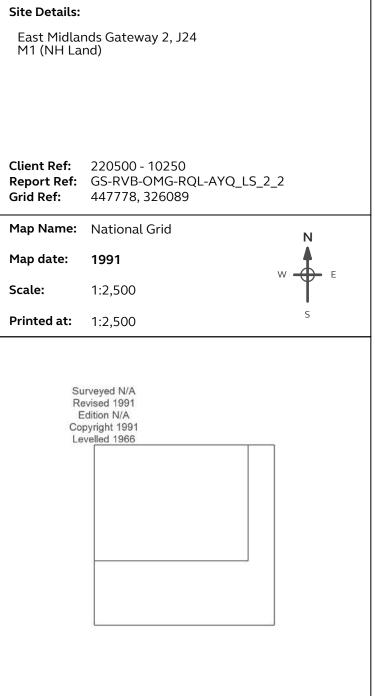
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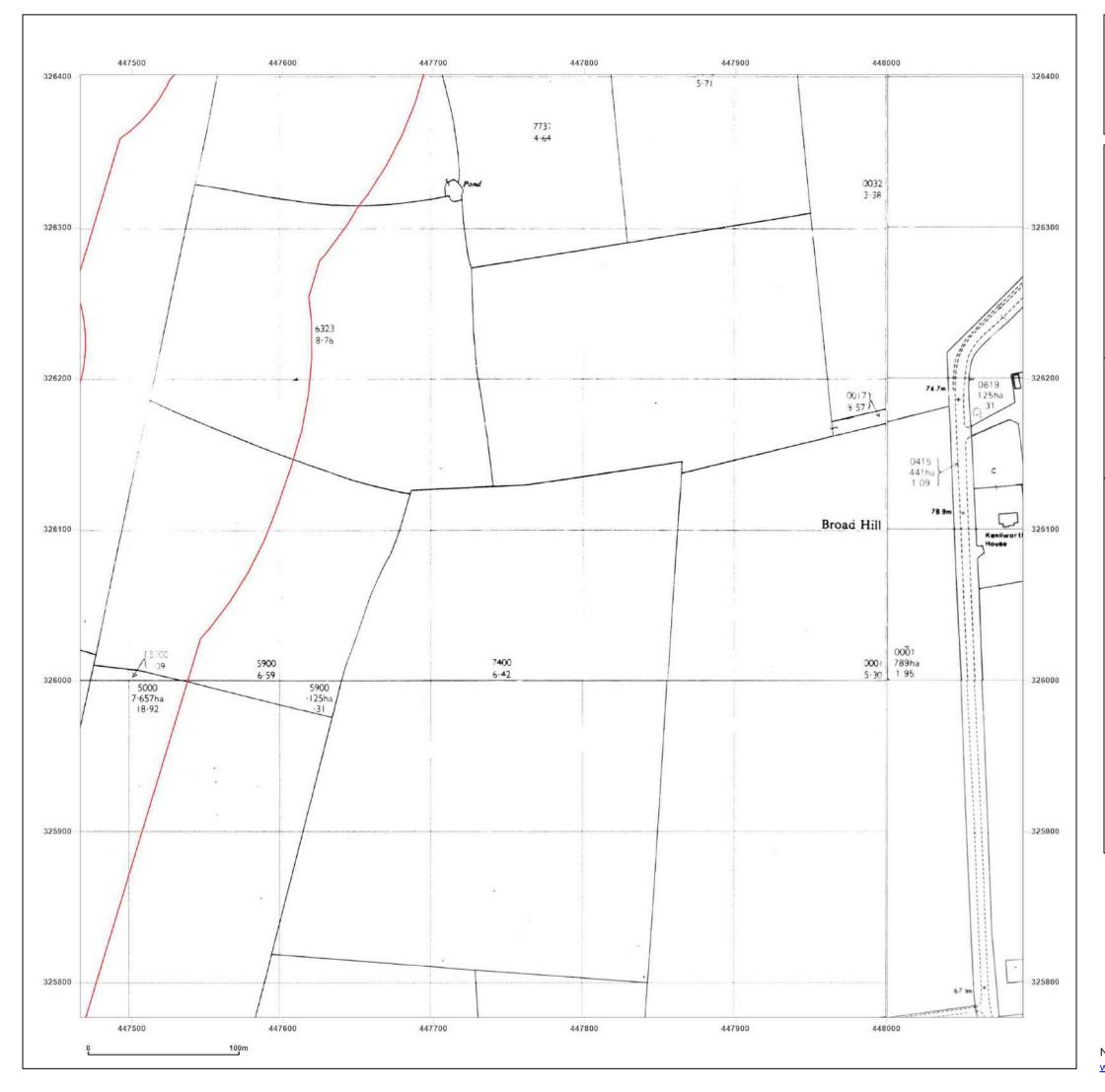




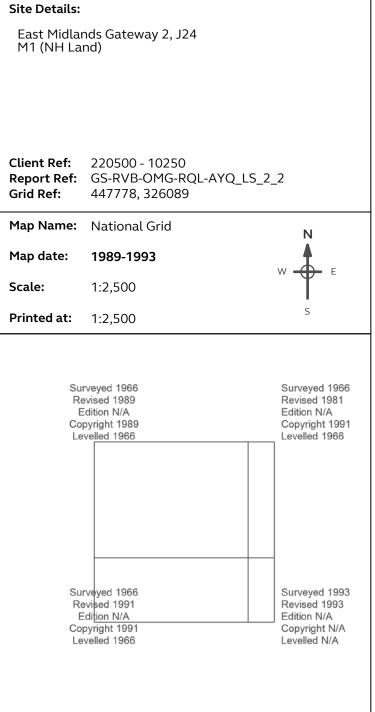
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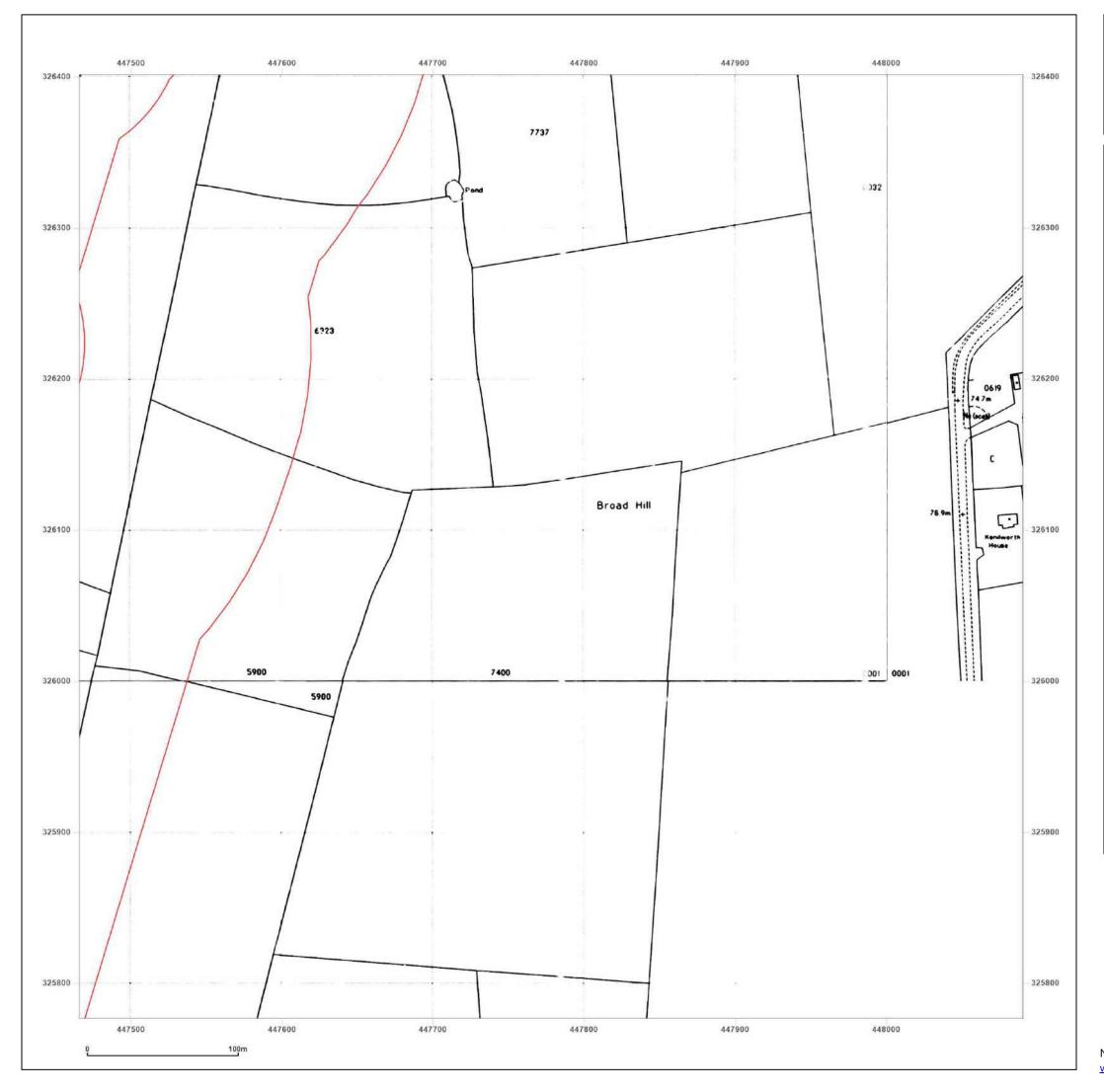




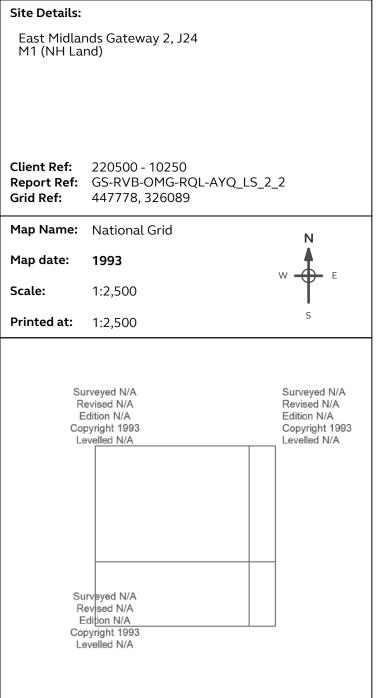
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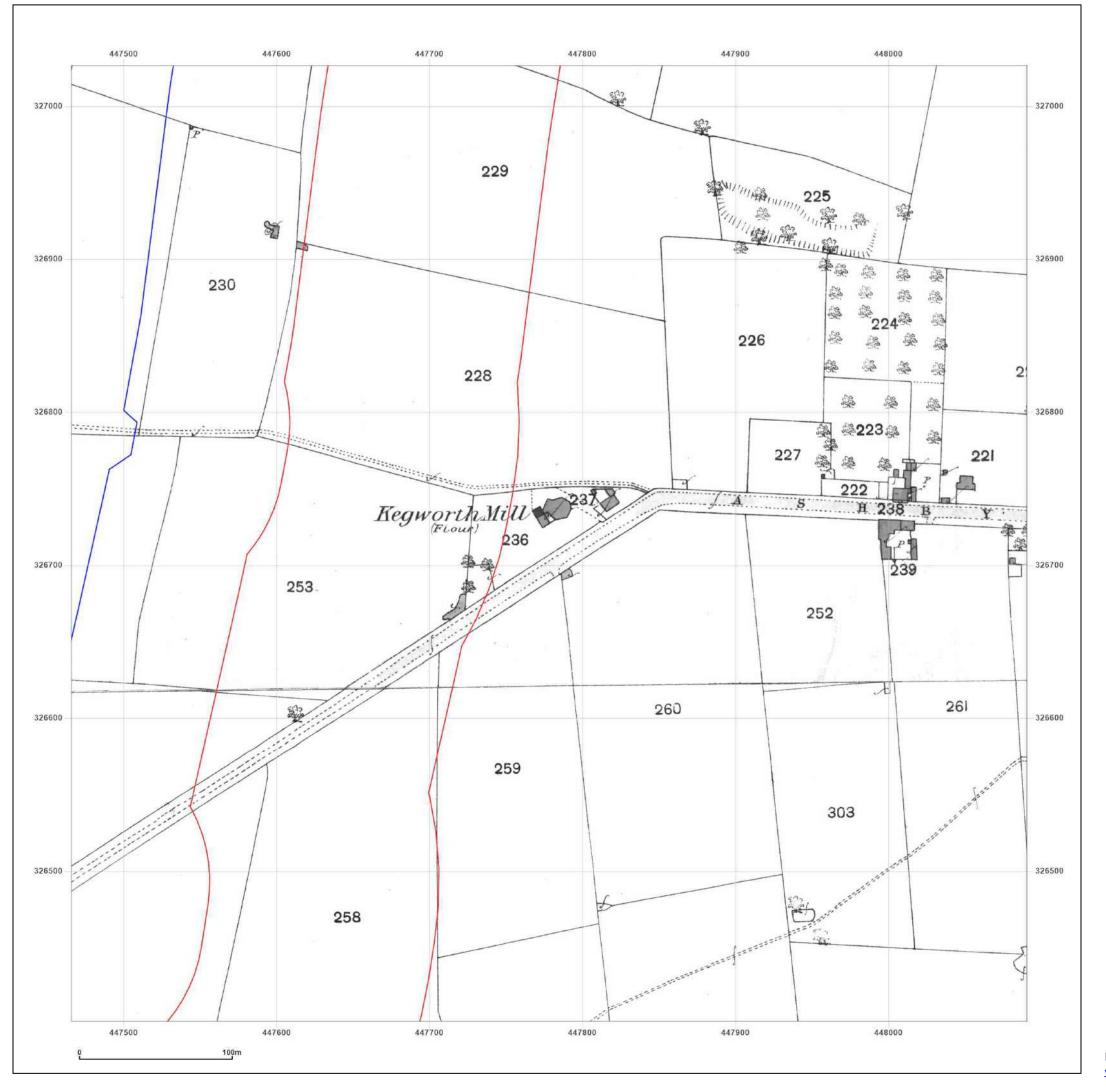




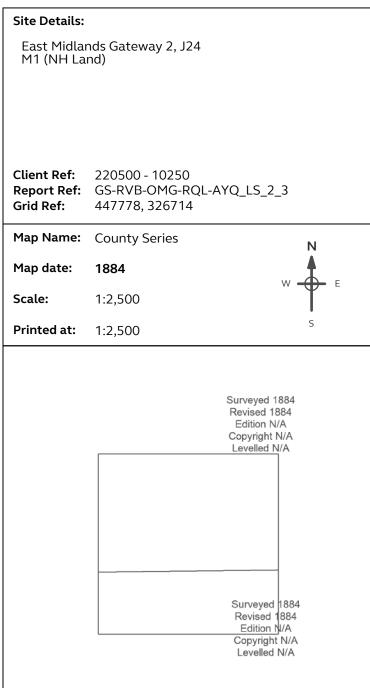
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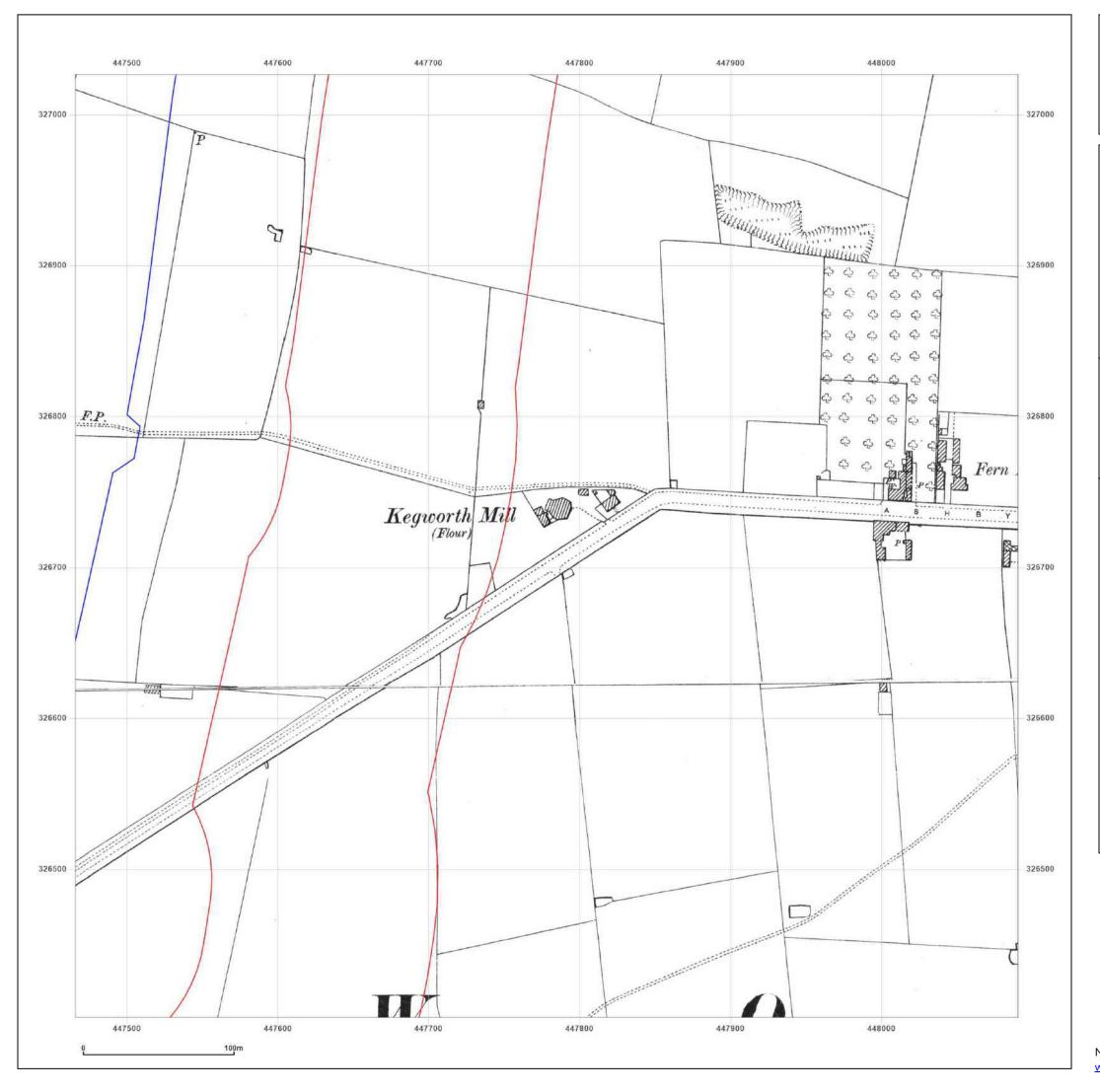




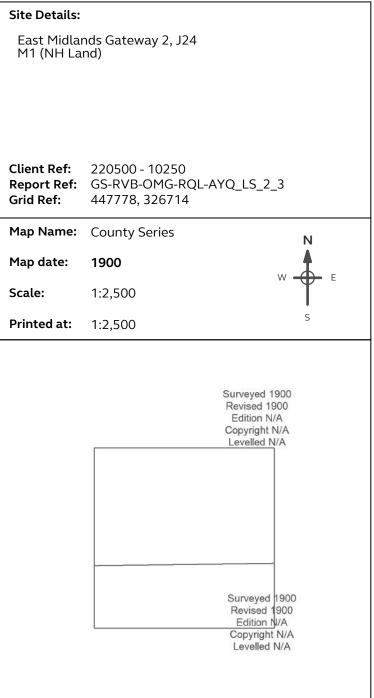
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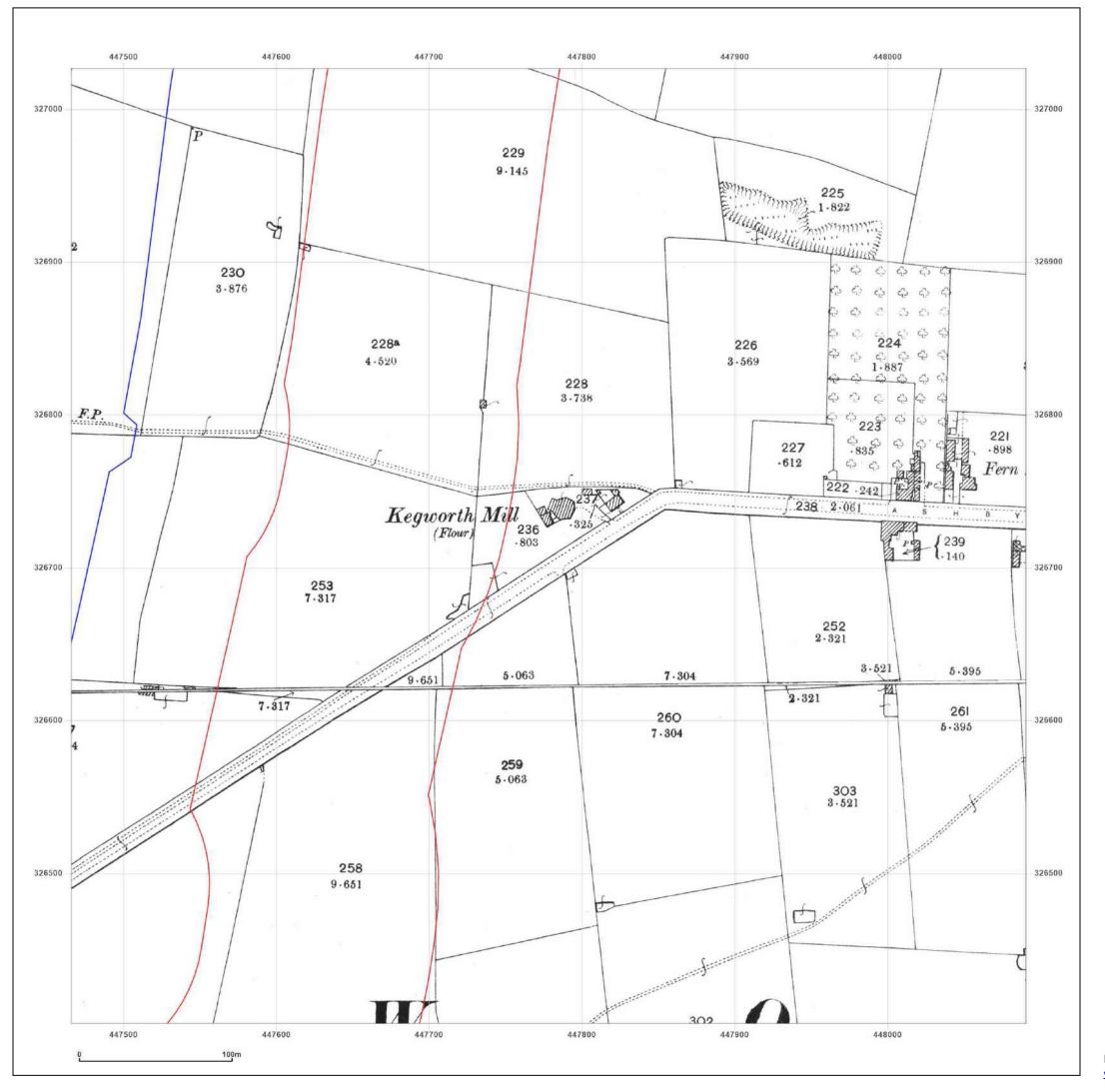




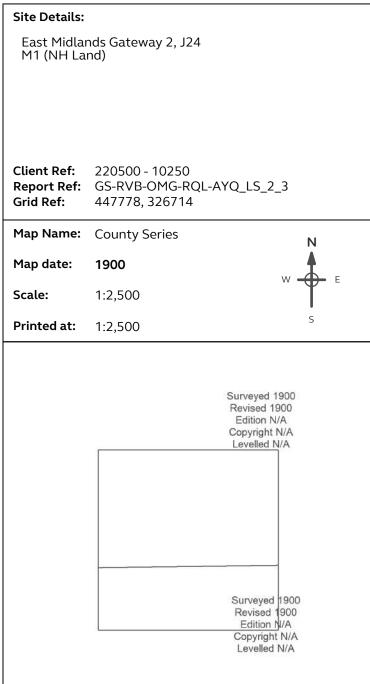
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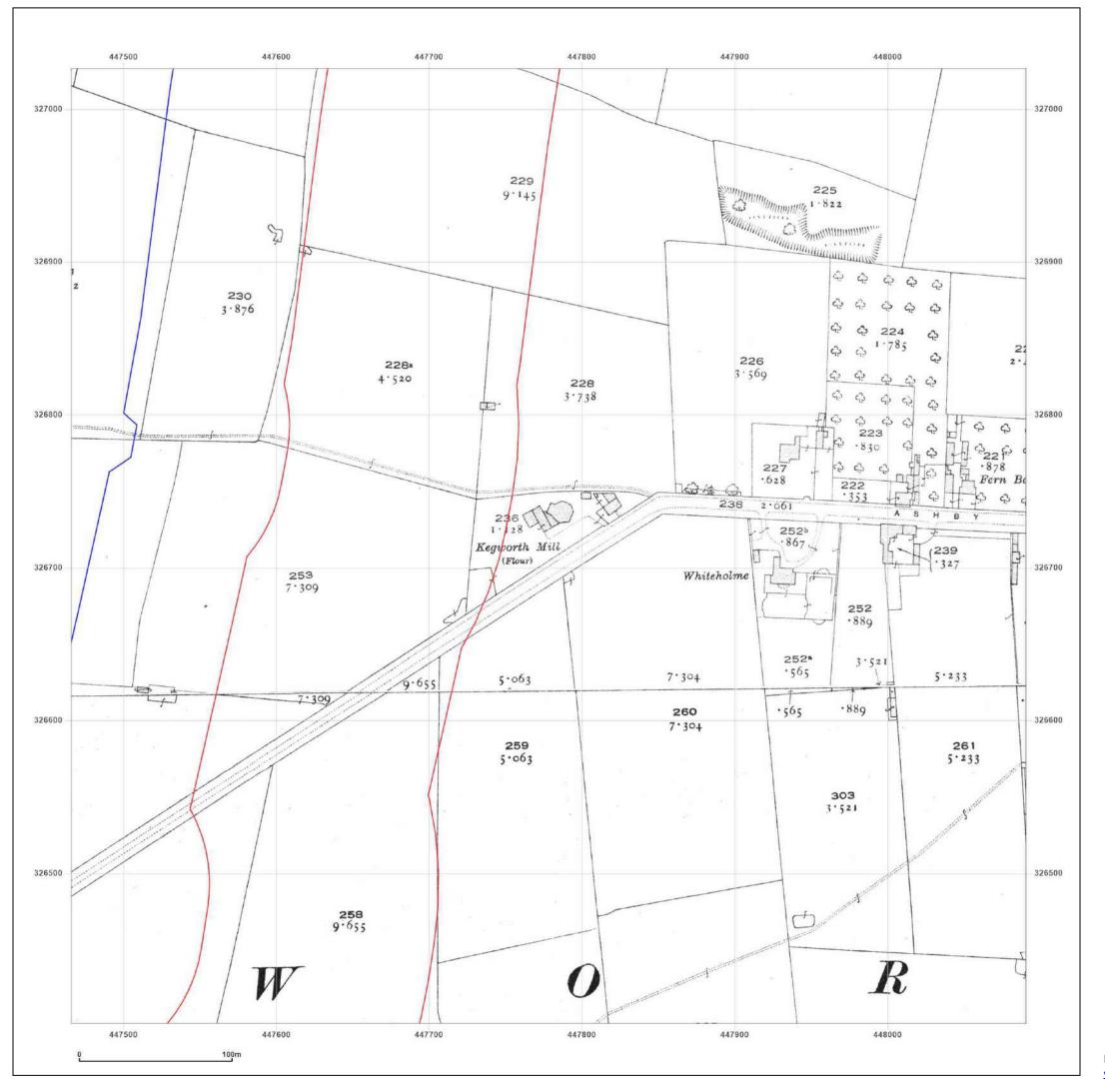




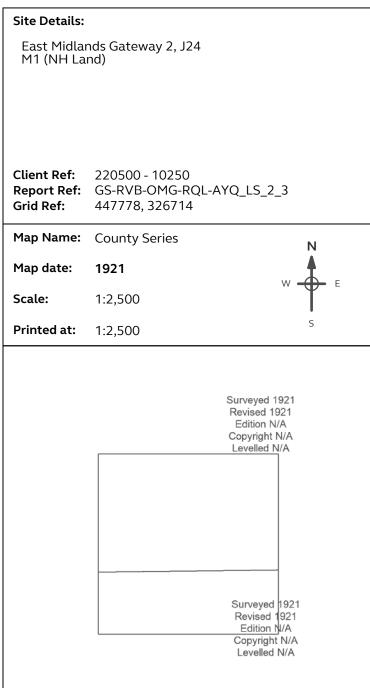
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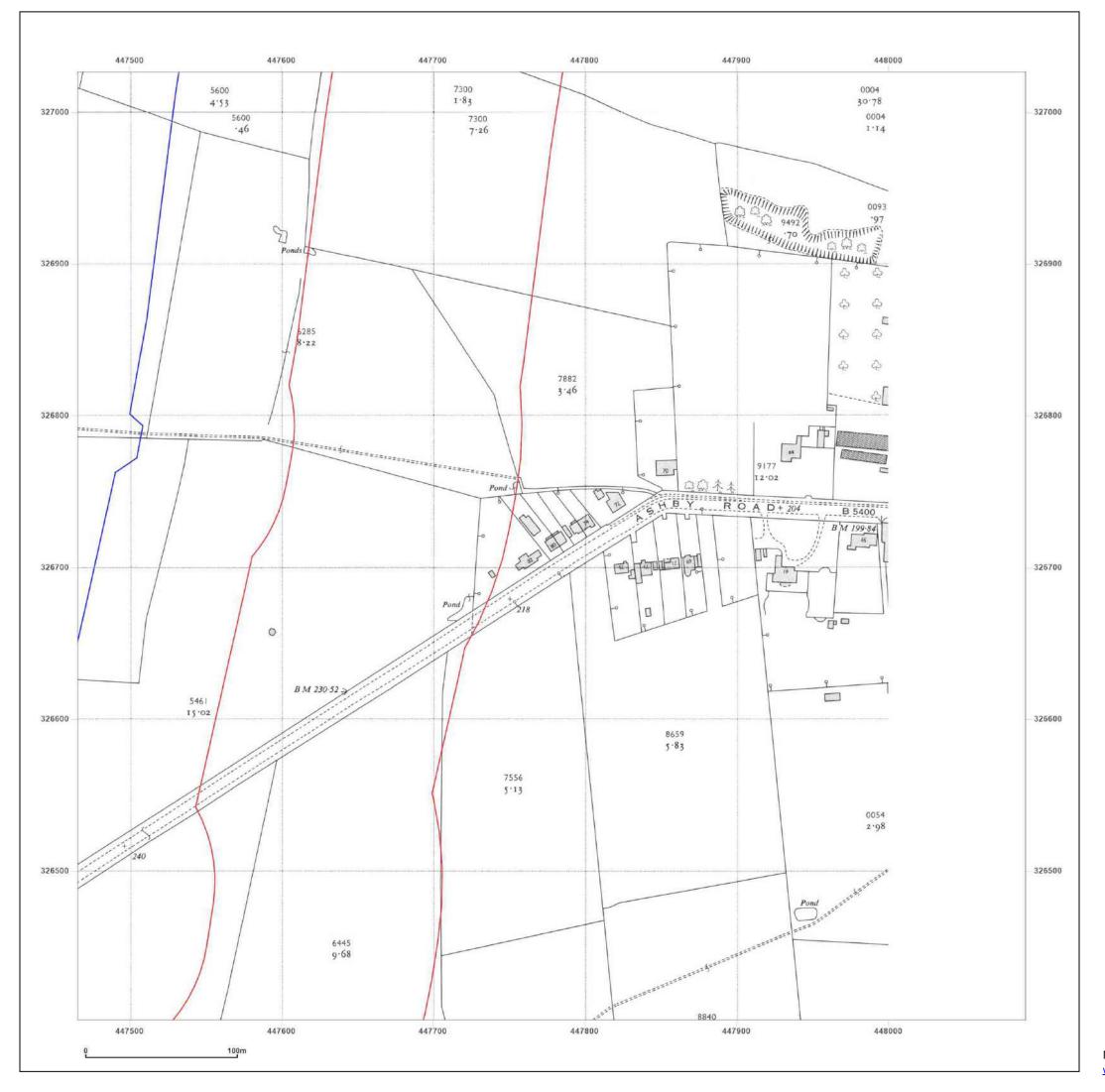




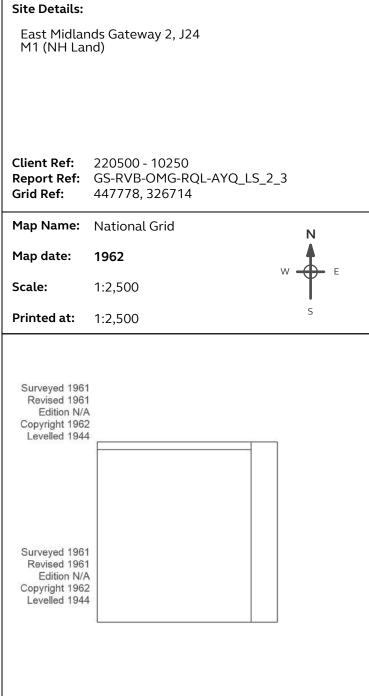
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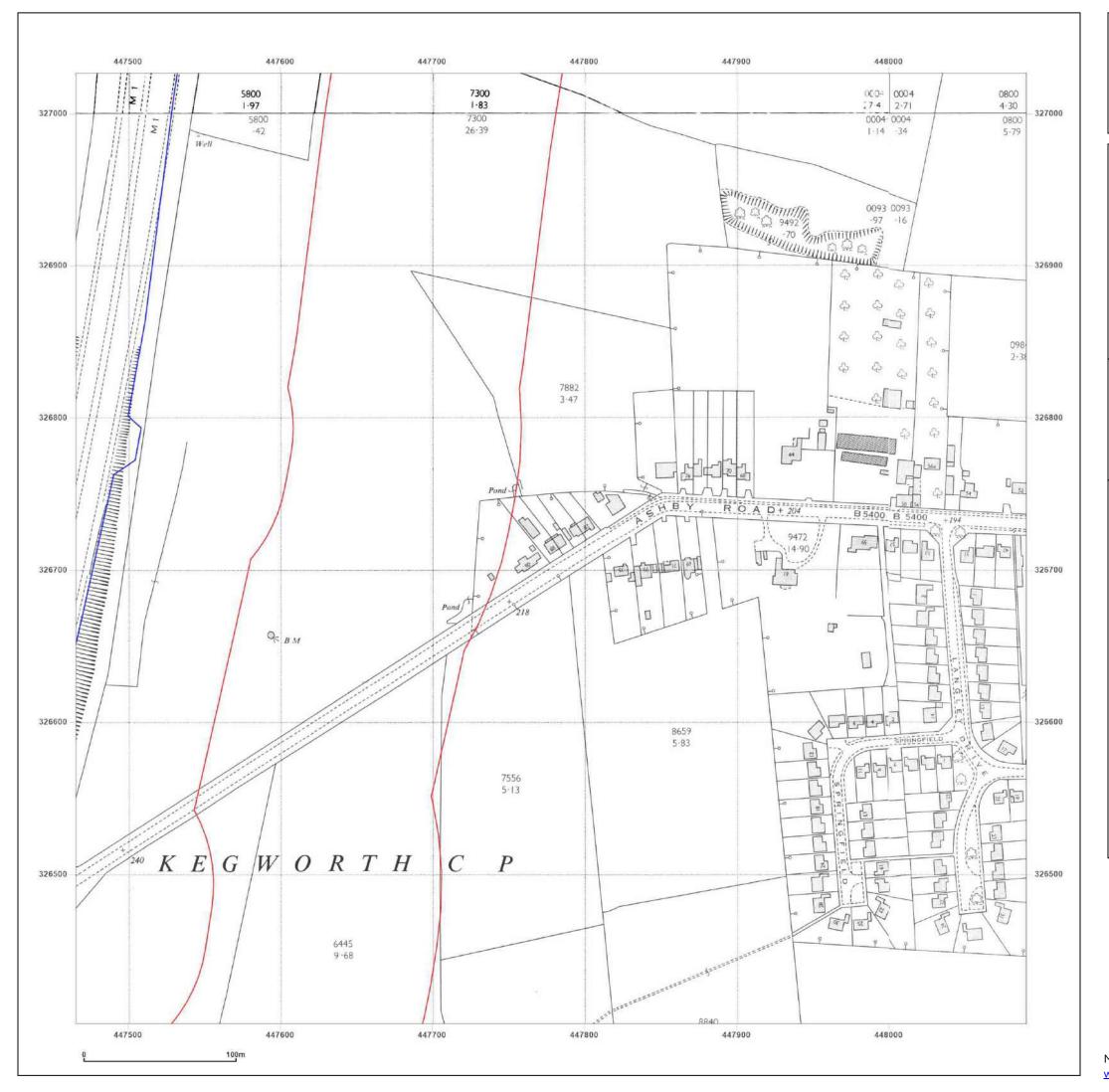




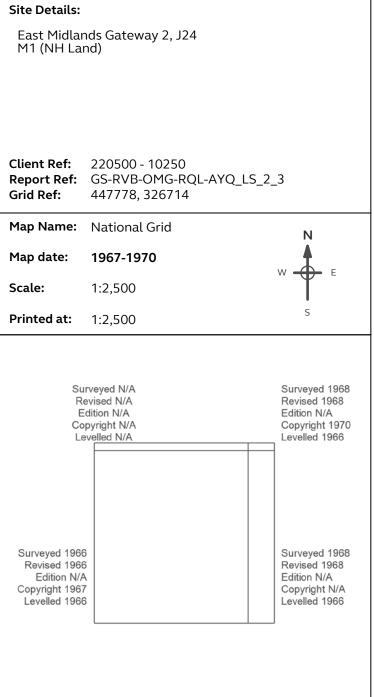
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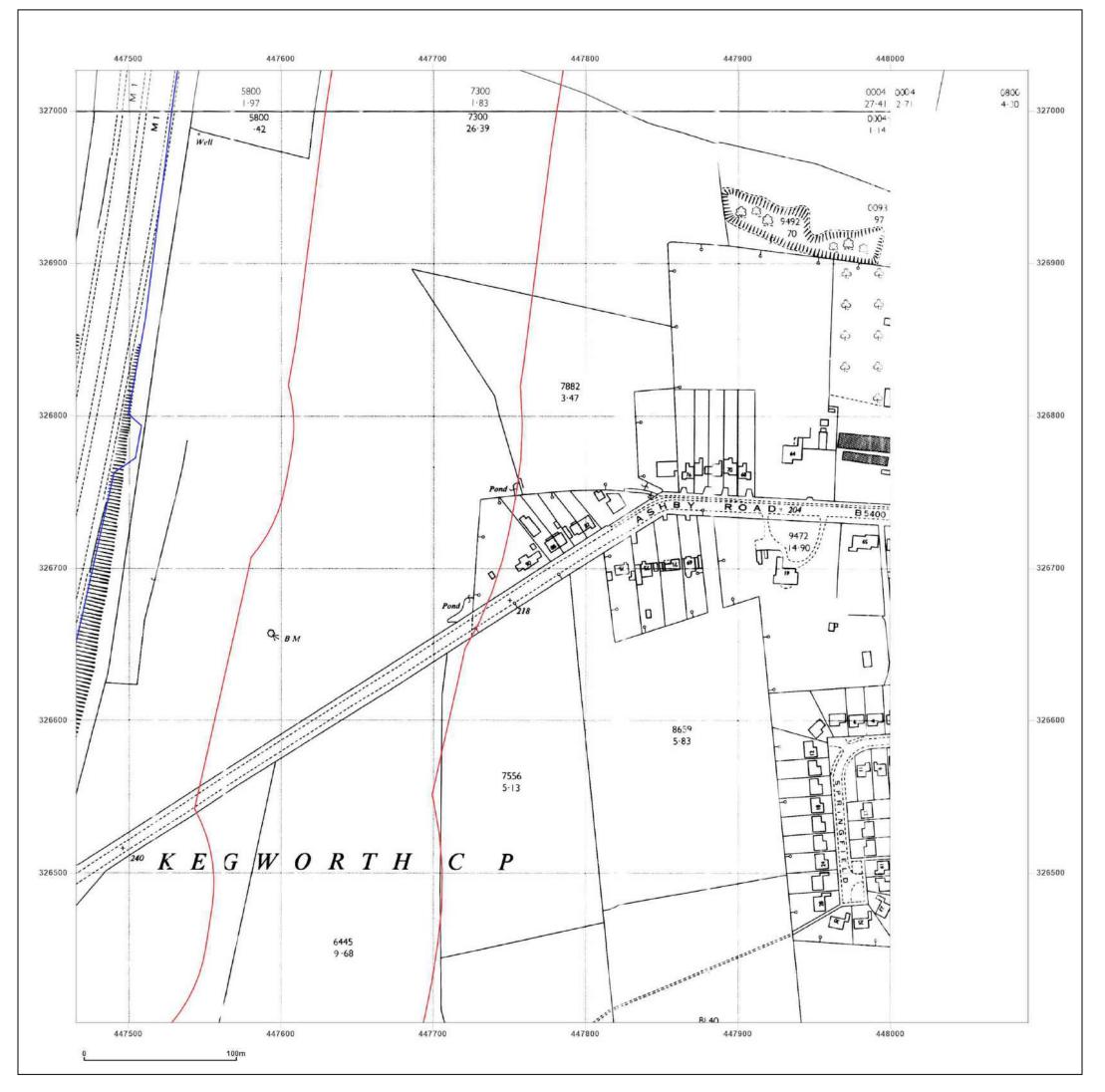




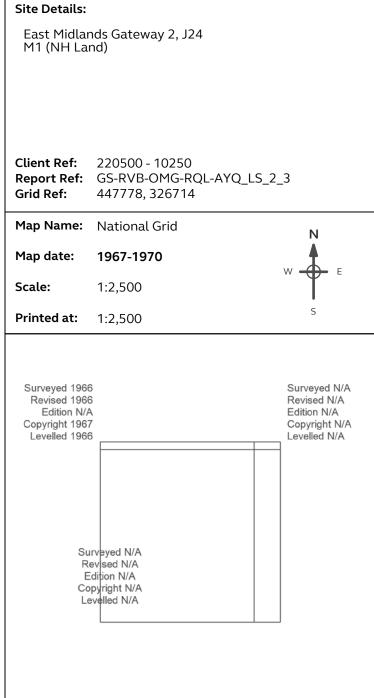
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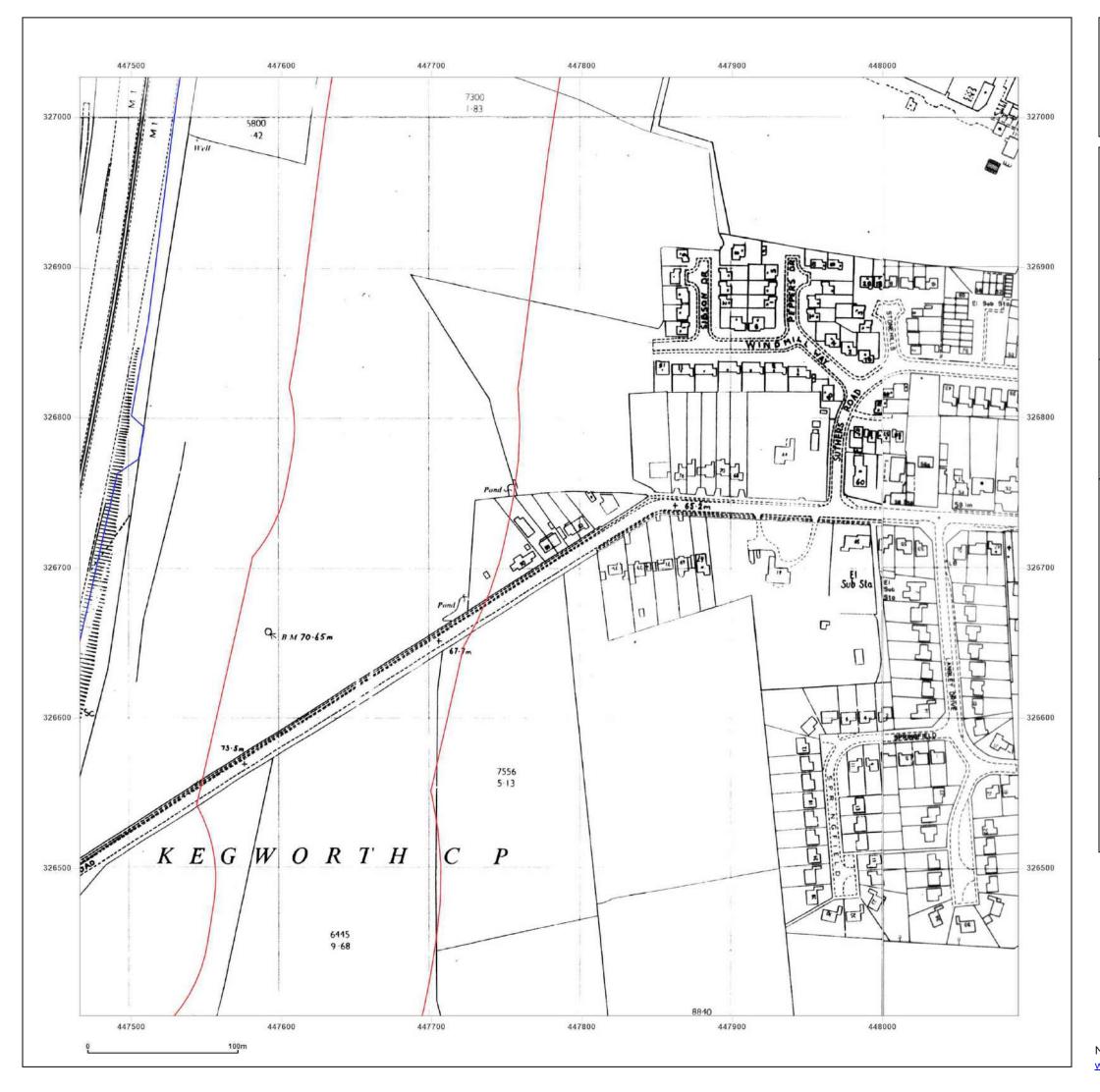




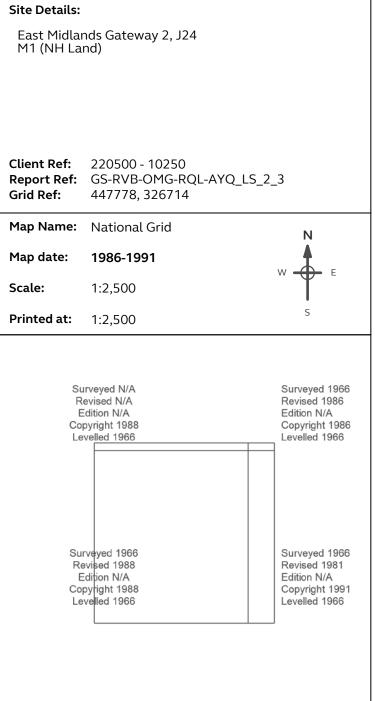
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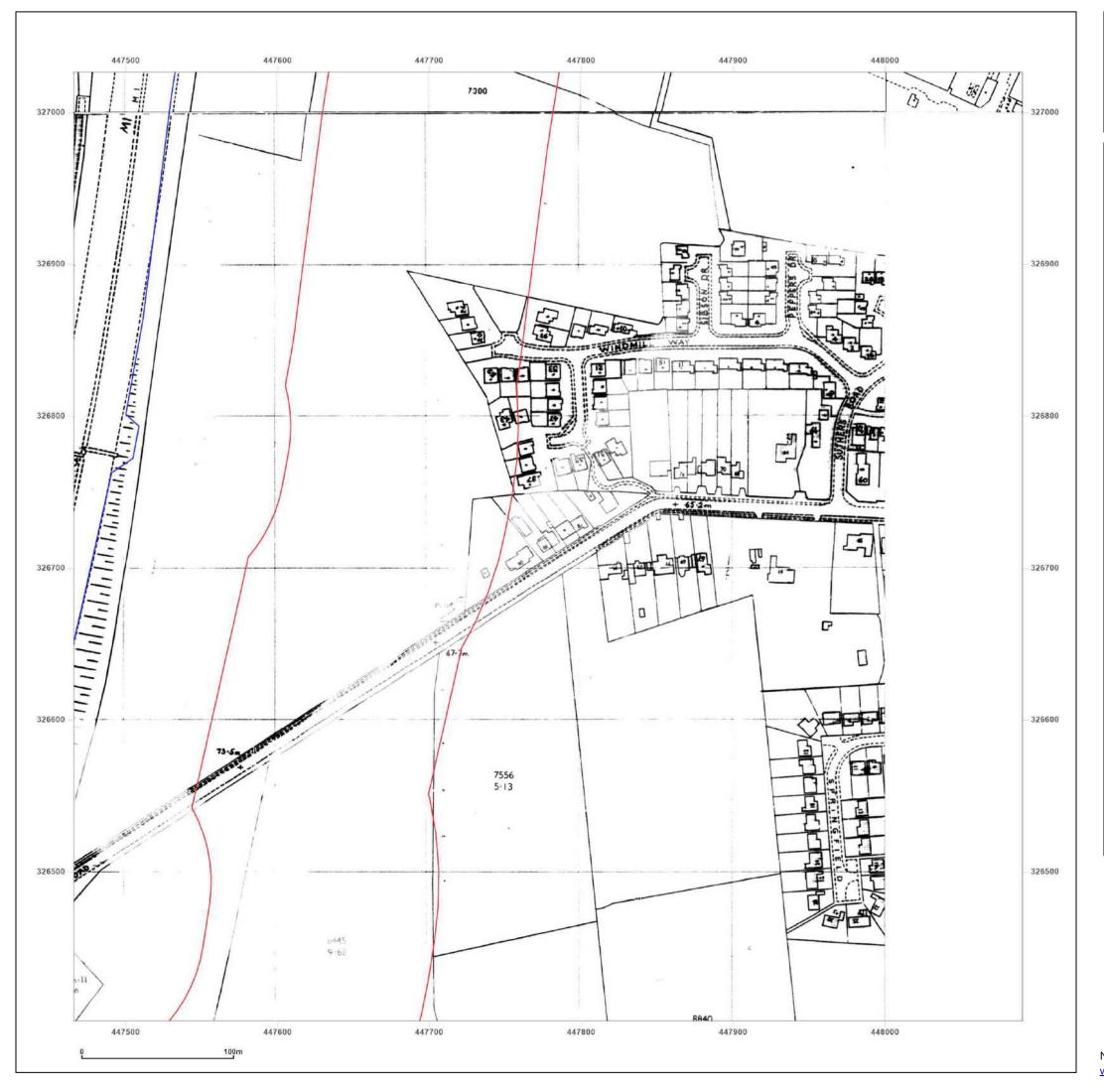




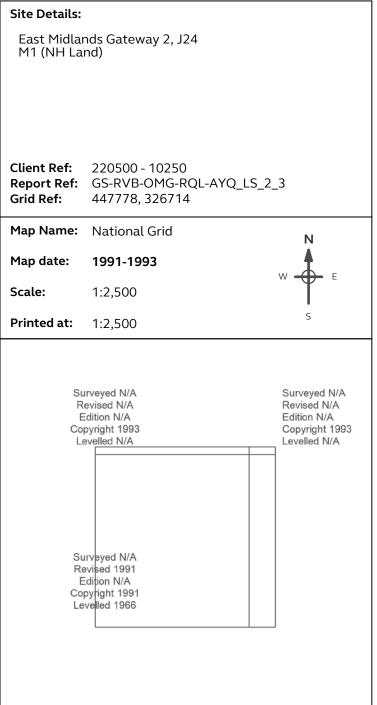
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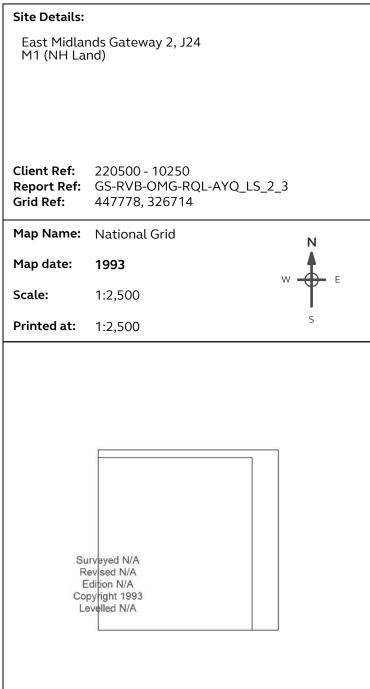
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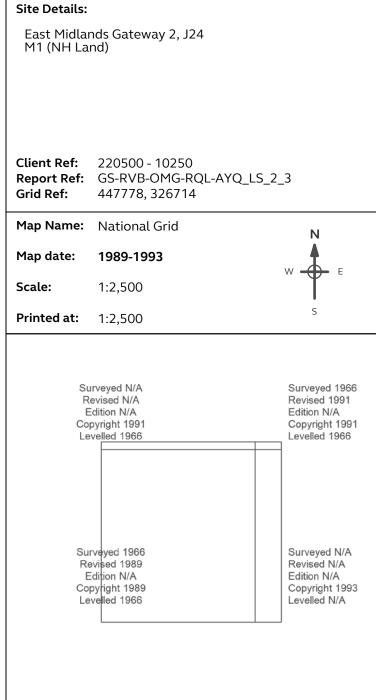
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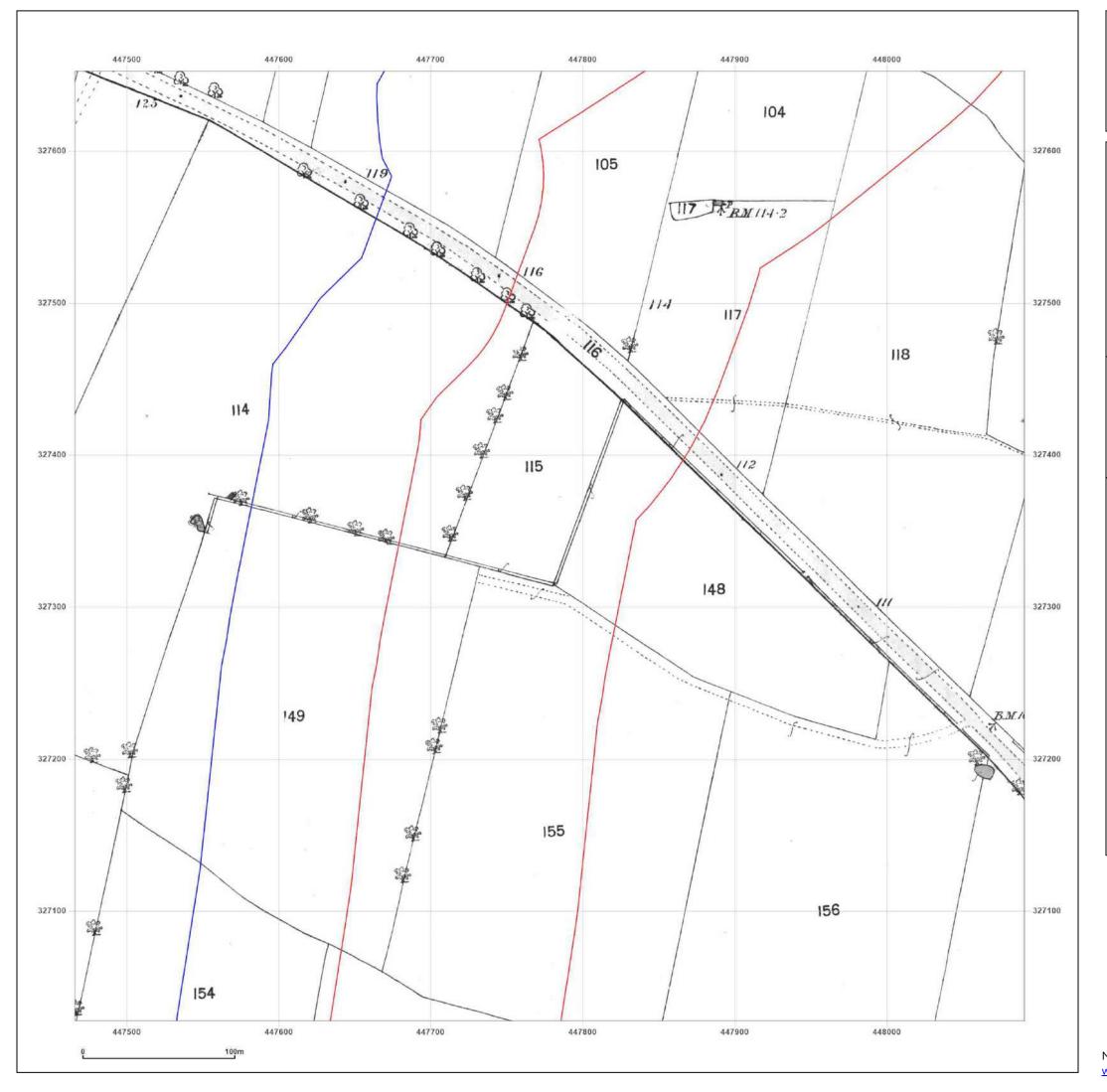




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Map legend available at:







East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_2_4

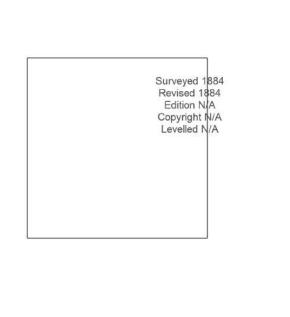
Grid Ref: 447778, 327340

Map Name: County Series

Map date: 1884

Scale: 1:2,500

Printed at: 1:2,500



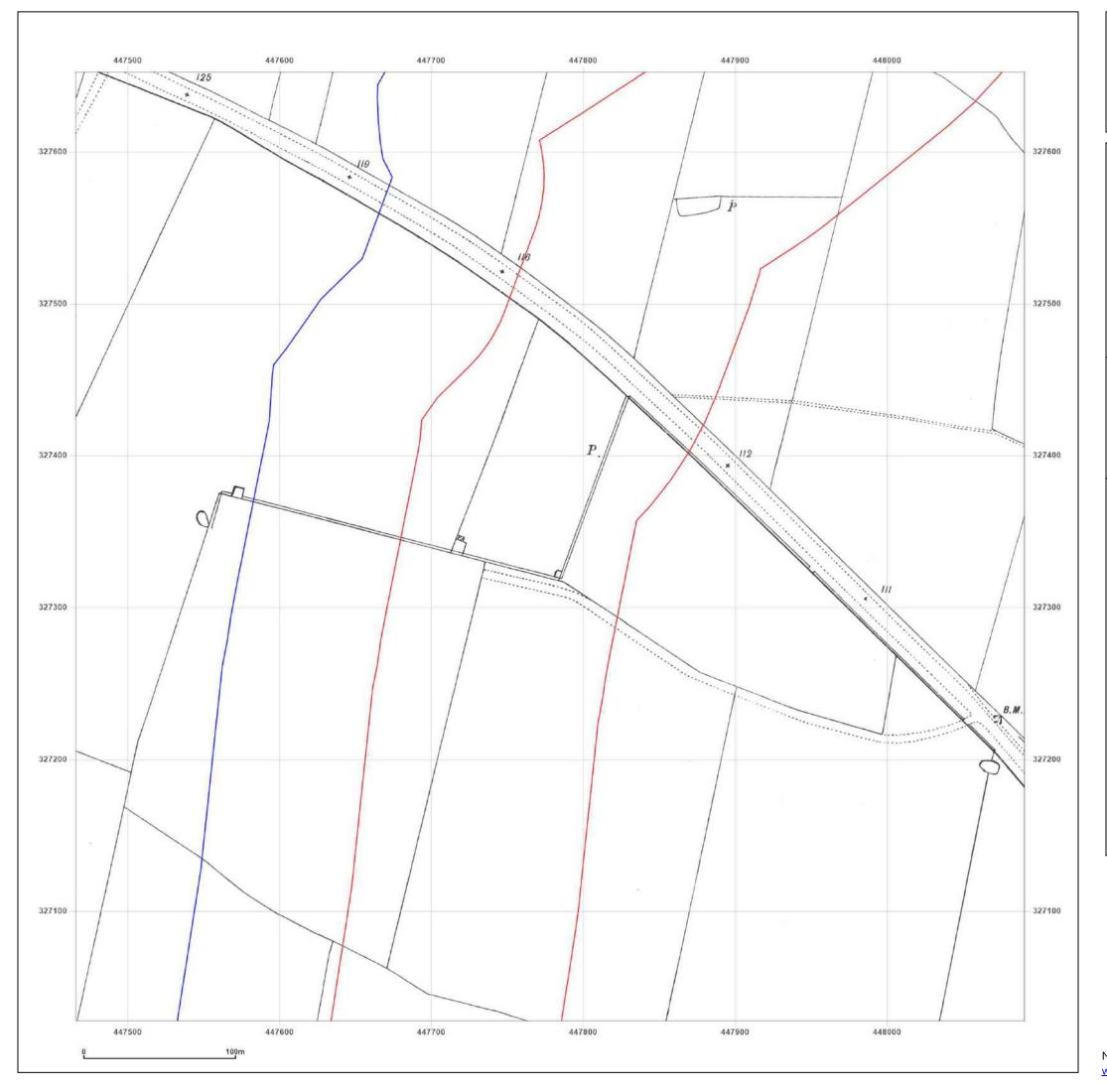


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Map legend available at:





Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_2_4

Grid Ref: 447778, 327340

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

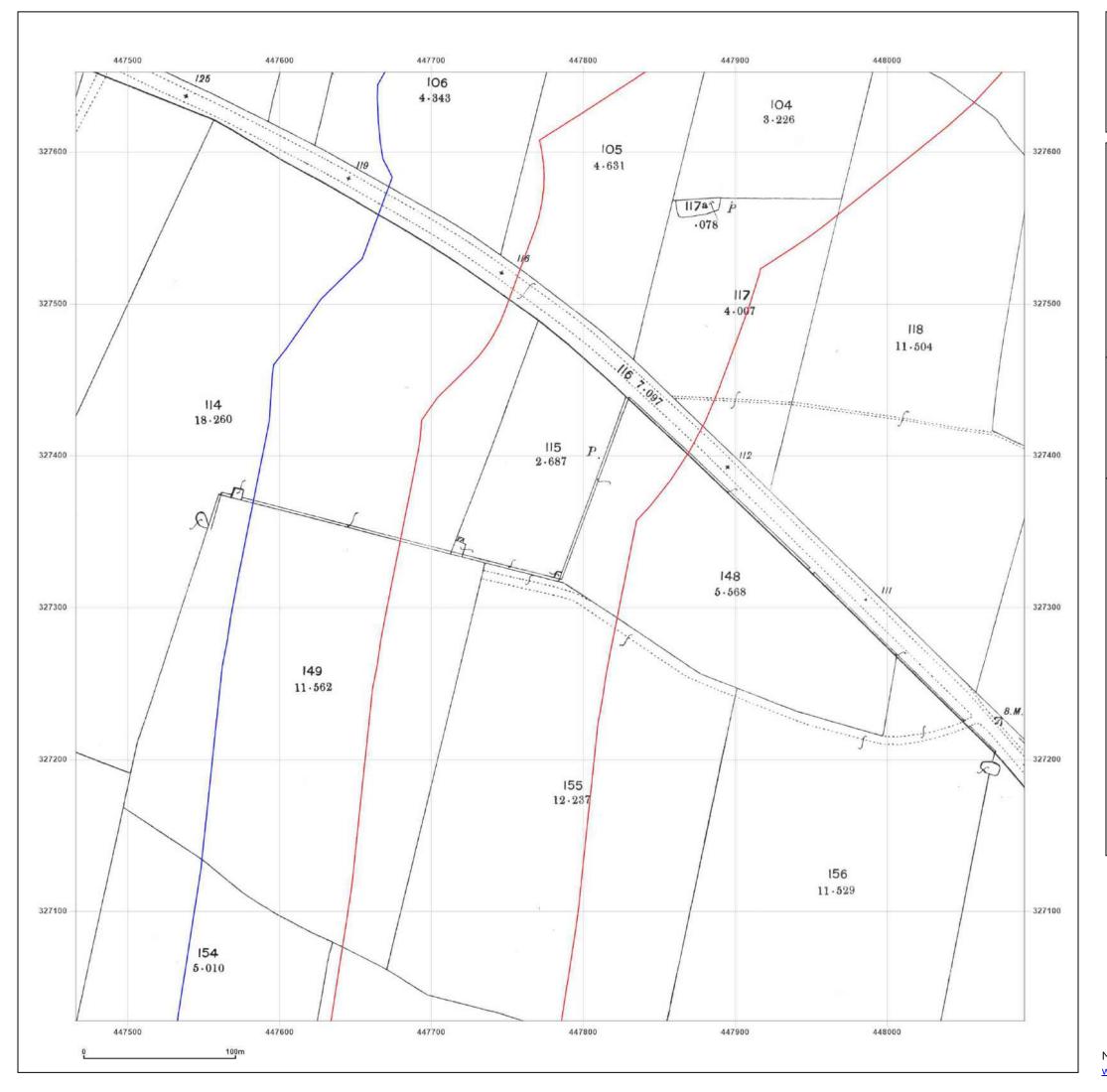


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Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_2_4

Grid Ref: 447778, 327340

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

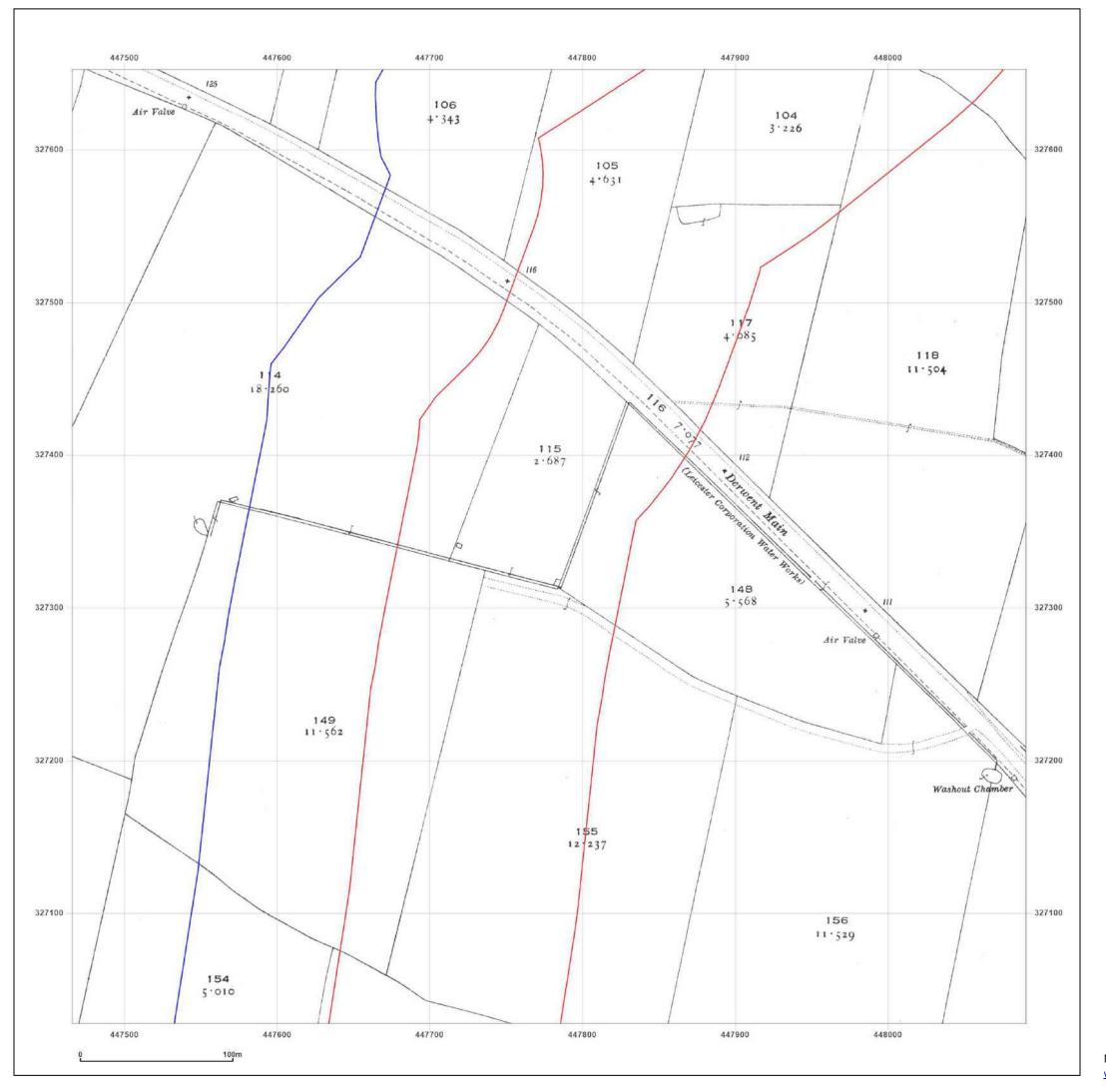


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Map legend available at:





Site Details:

East Midlands Gateway 2, J24 M1 (NH Land)

Client Ref: 220500 - 10250

Report Ref: GS-RVB-OMG-RQL-AYQ_LS_2_4

Grid Ref: 447778, 327340

Map Name: County Series

Map date: 1921

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1921
Revised 1921
Edition N/A
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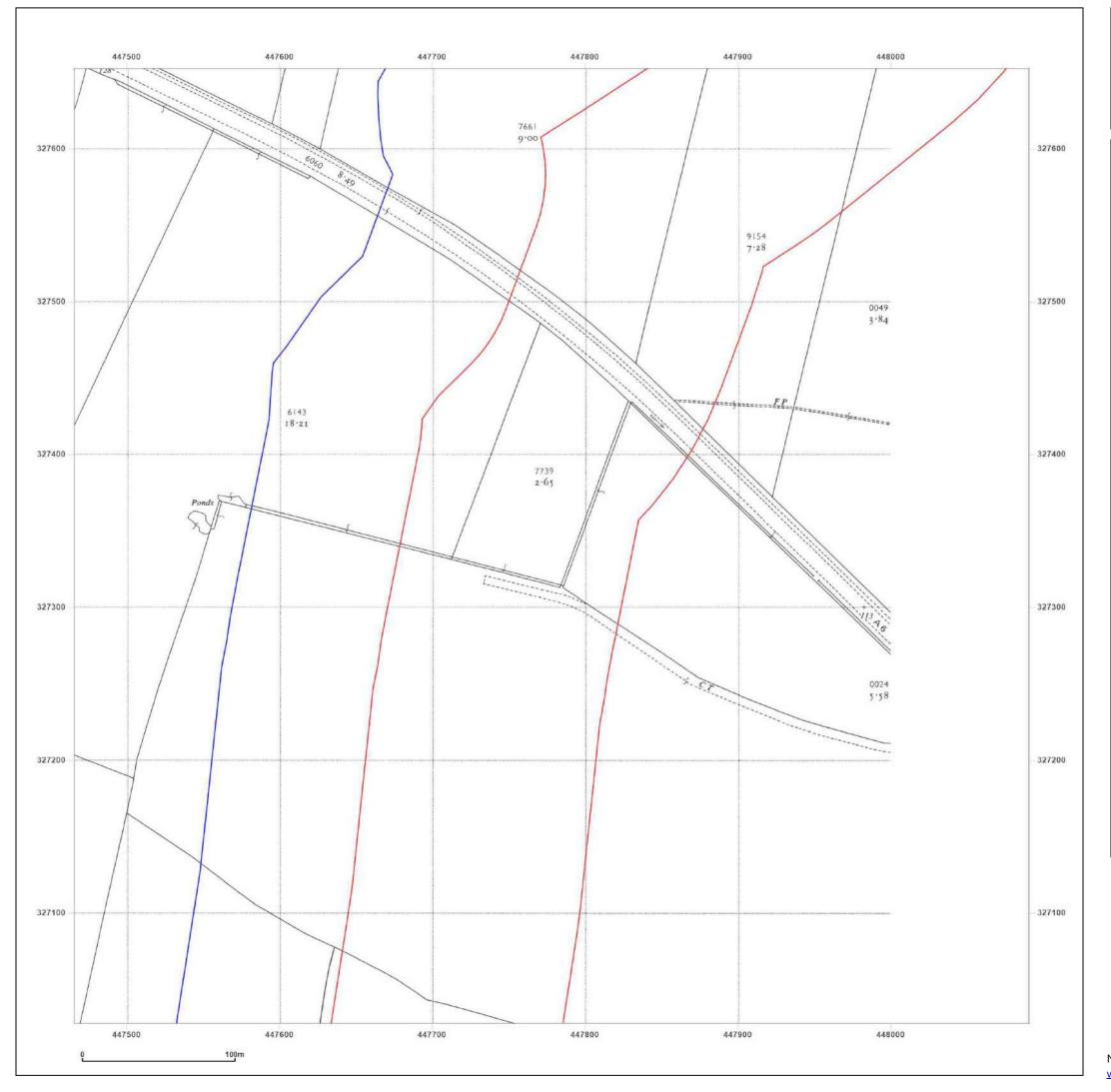


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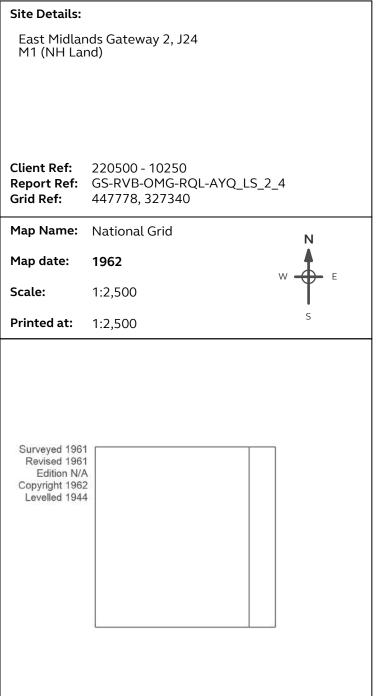
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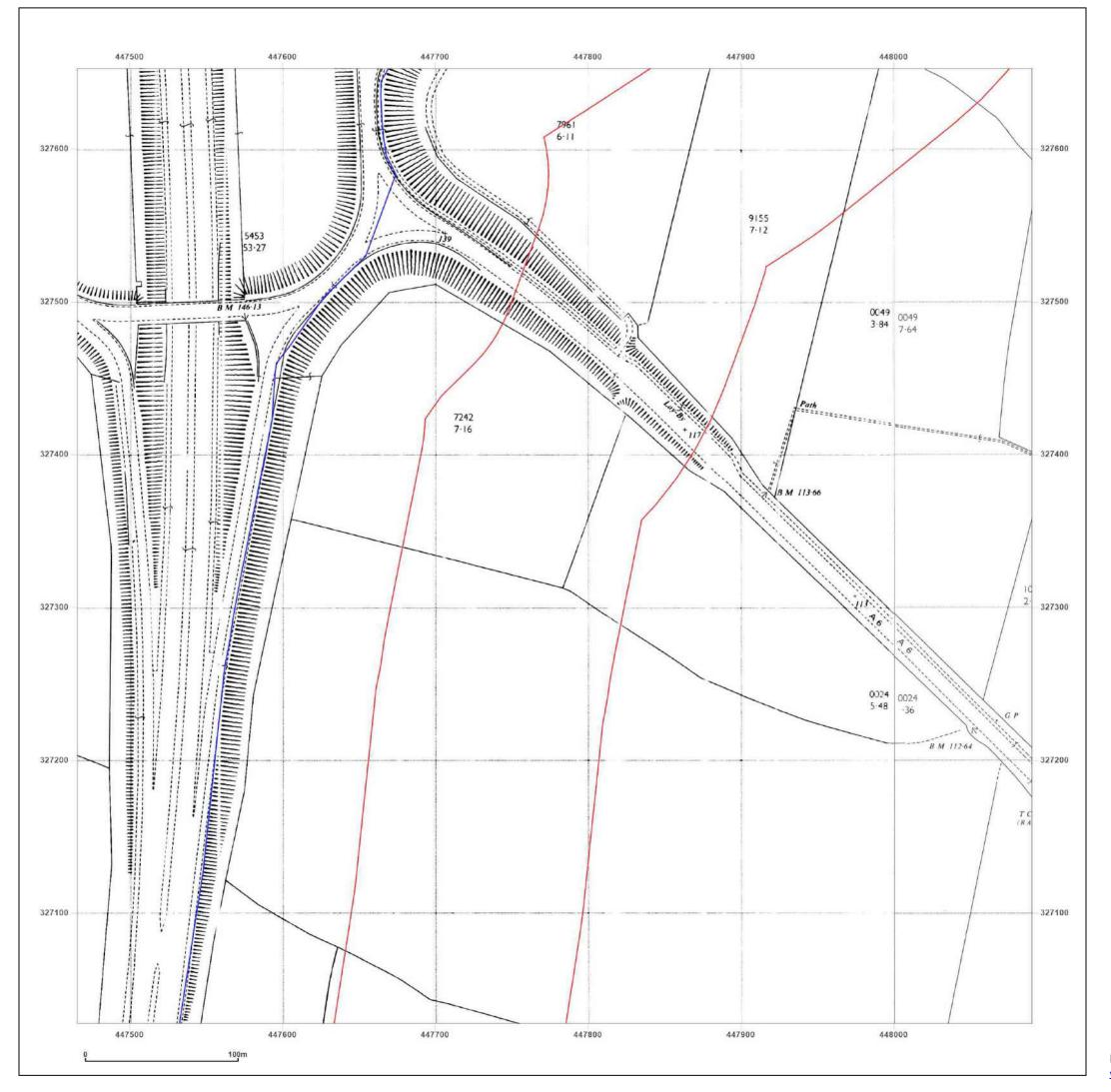




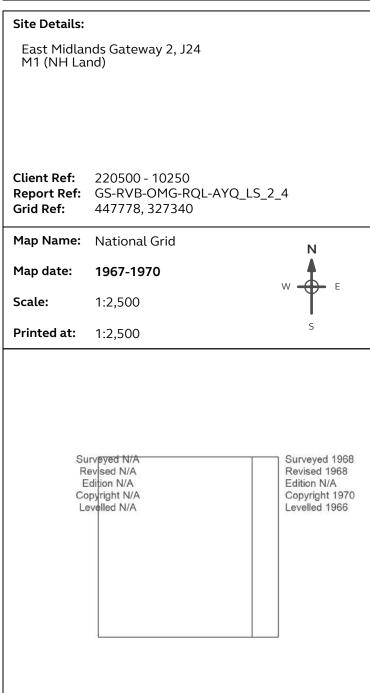
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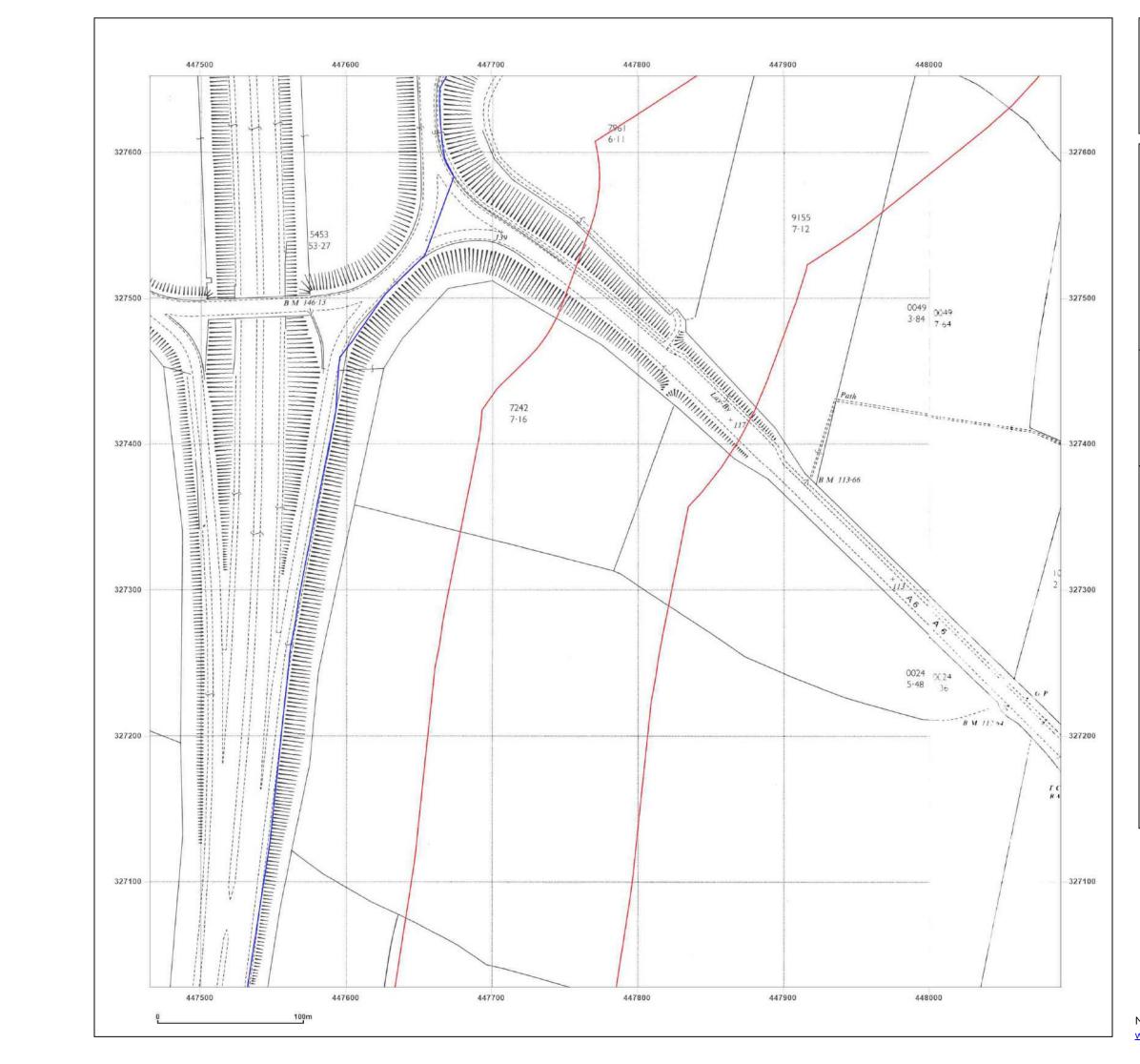




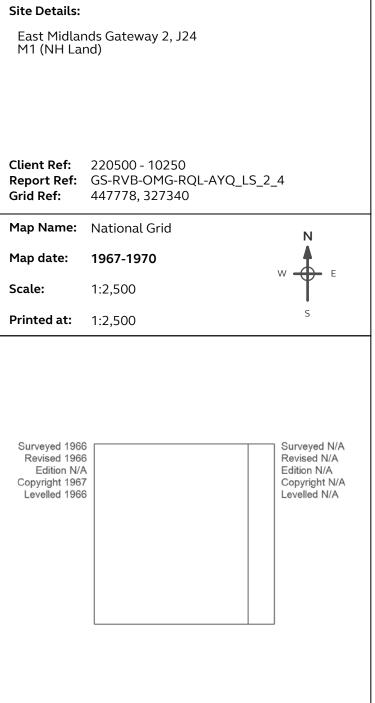
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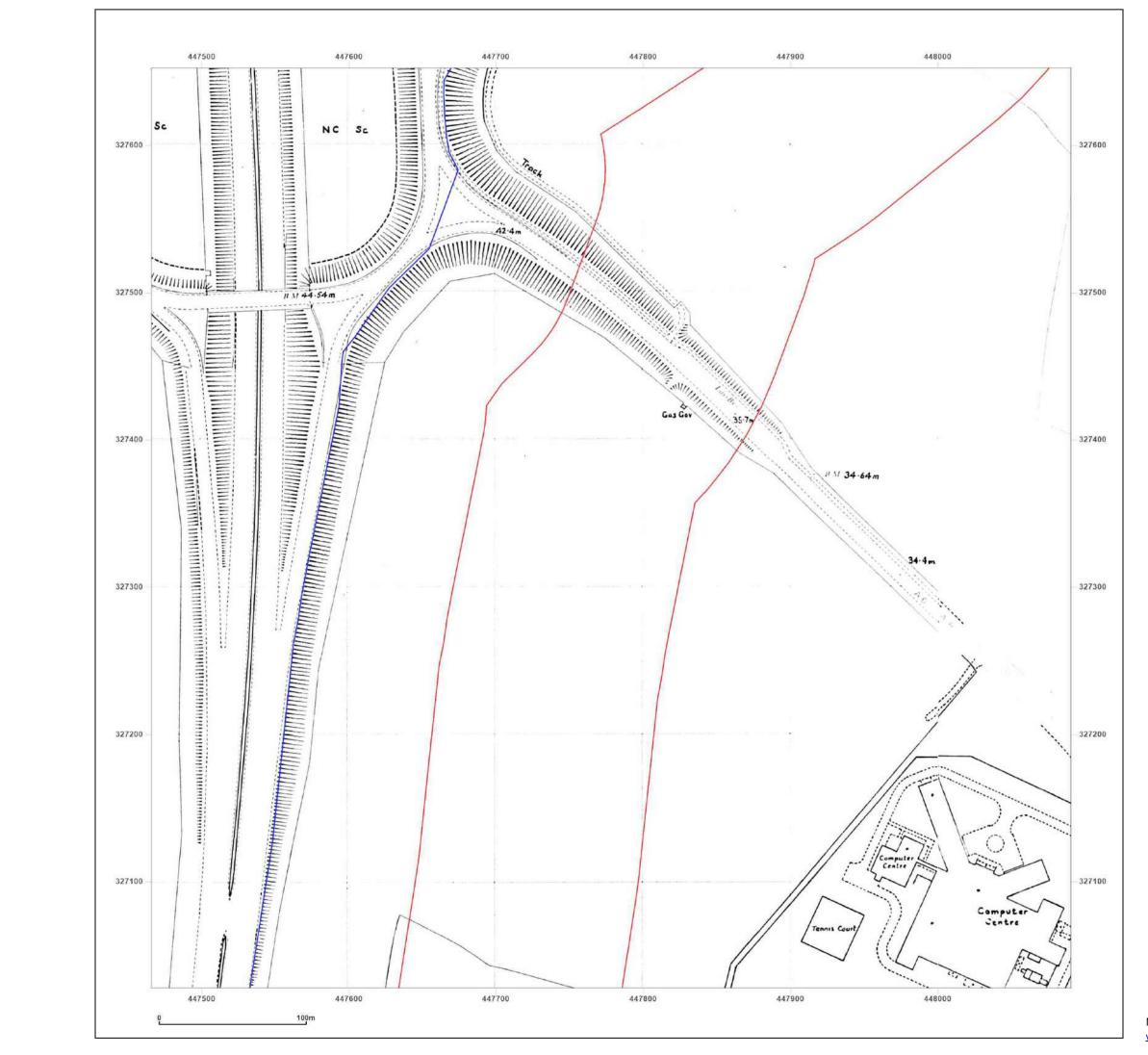




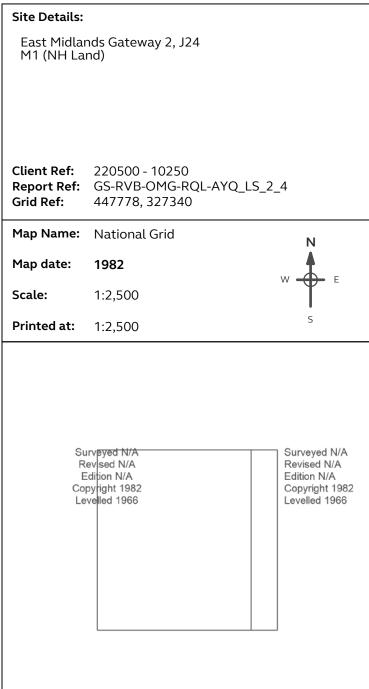
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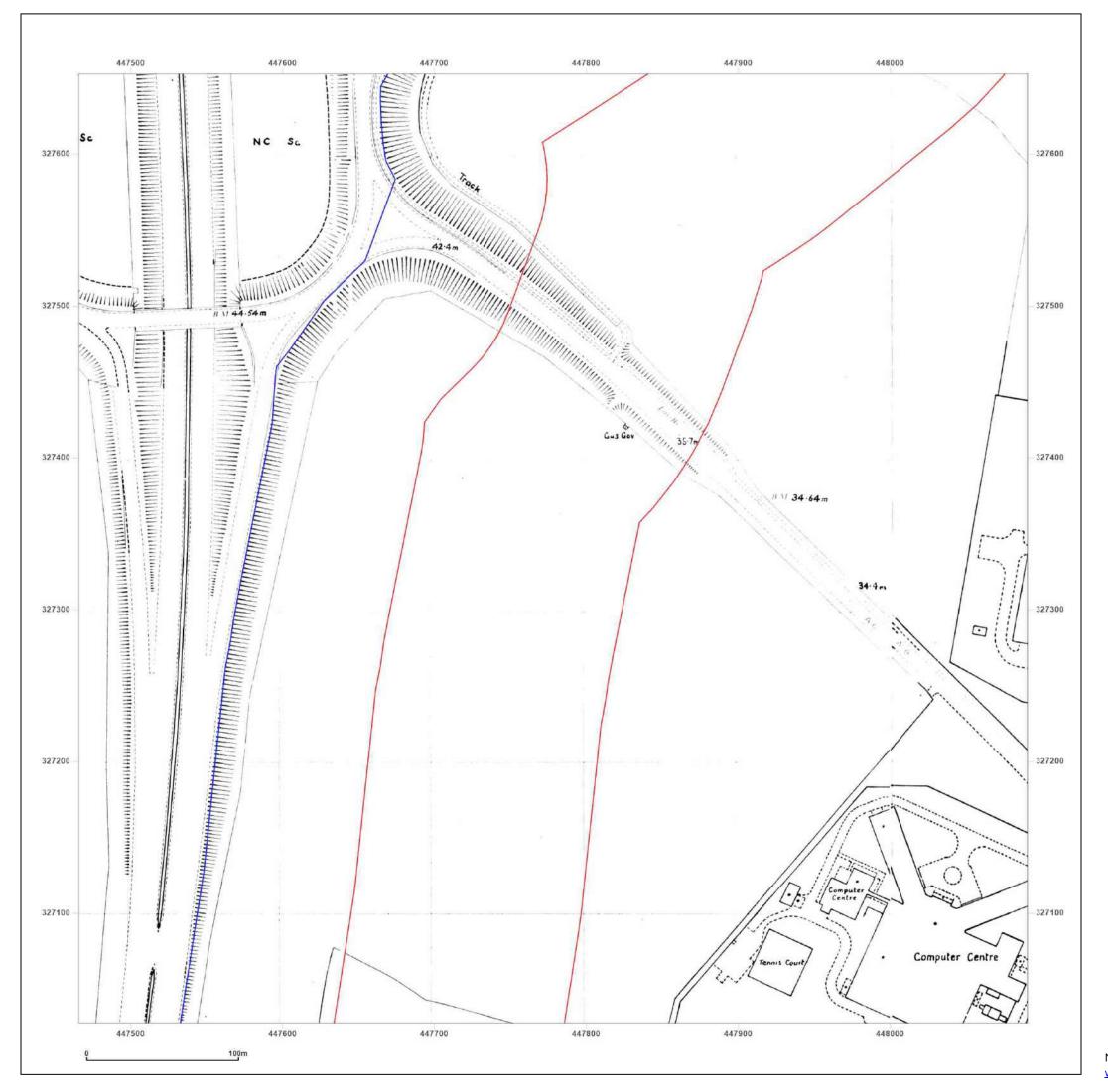




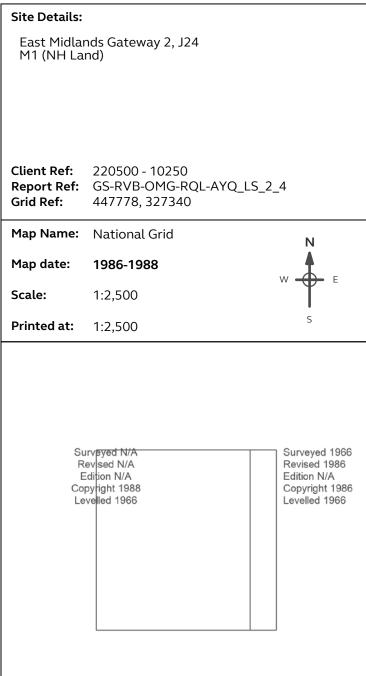
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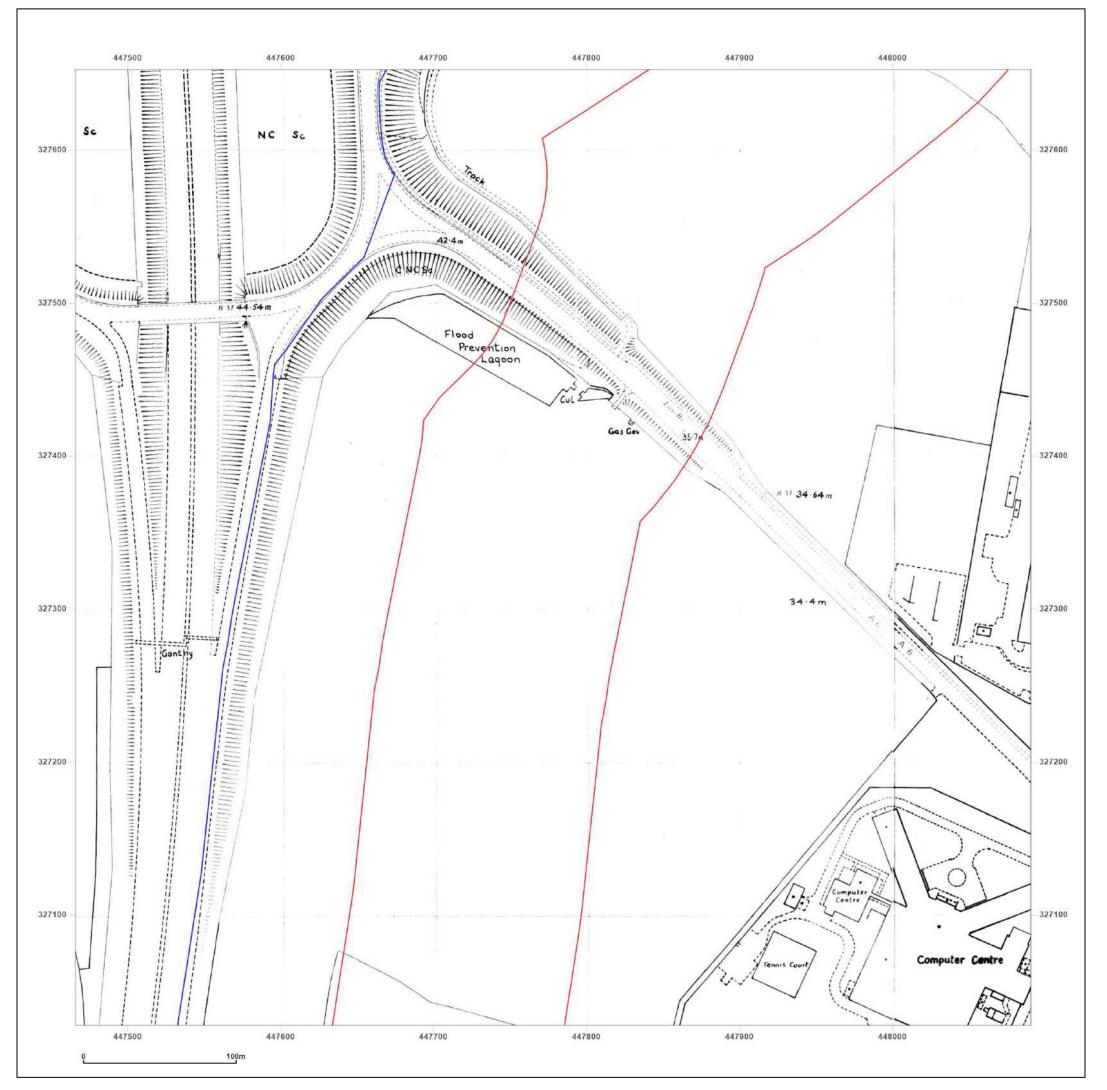




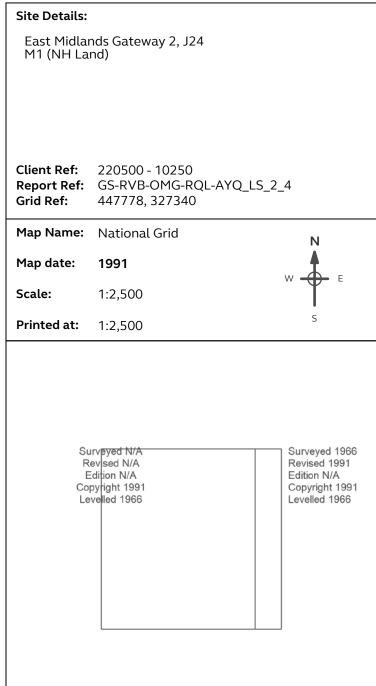
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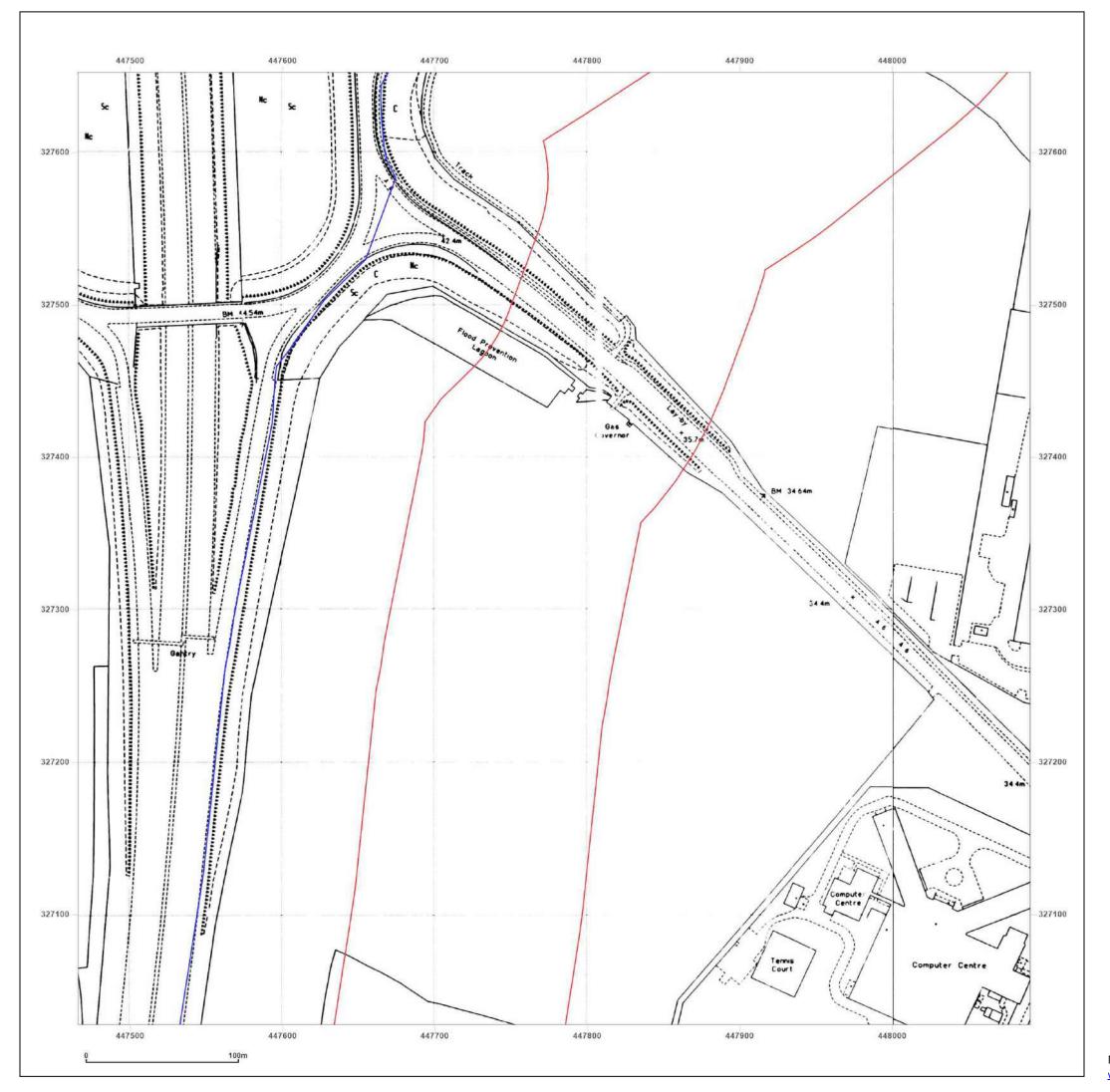




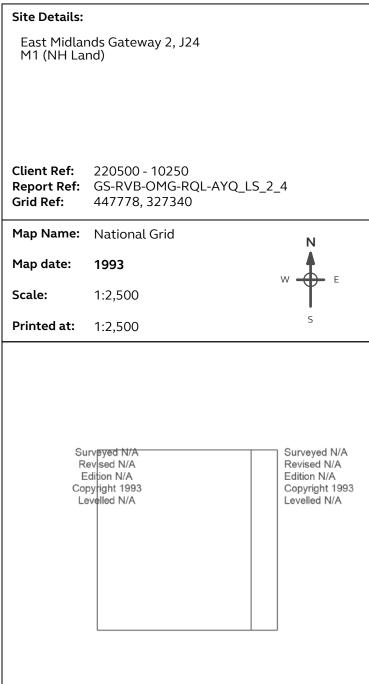
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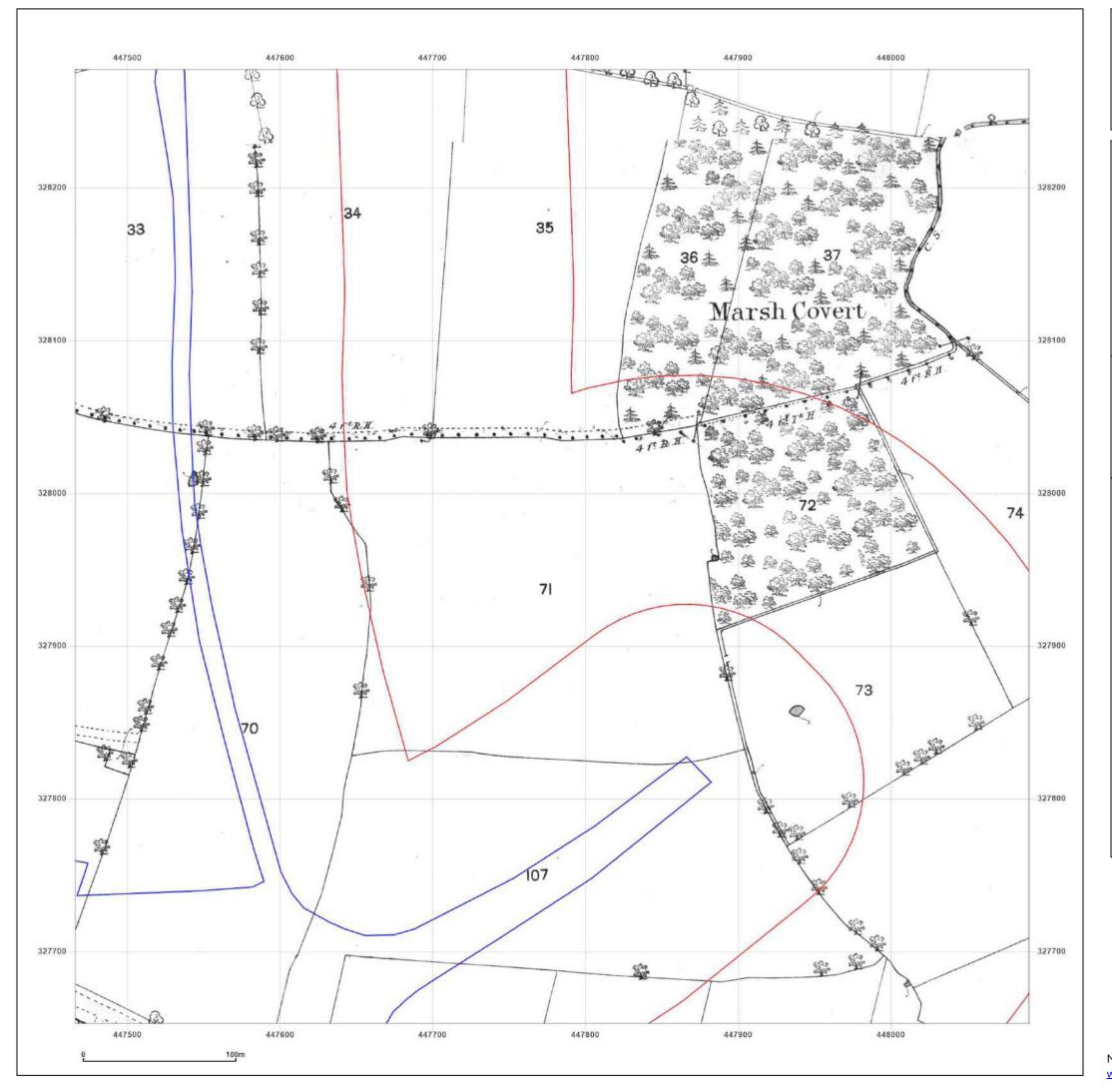




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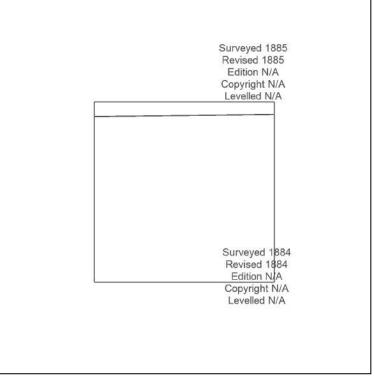
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Map date: 1884-1885

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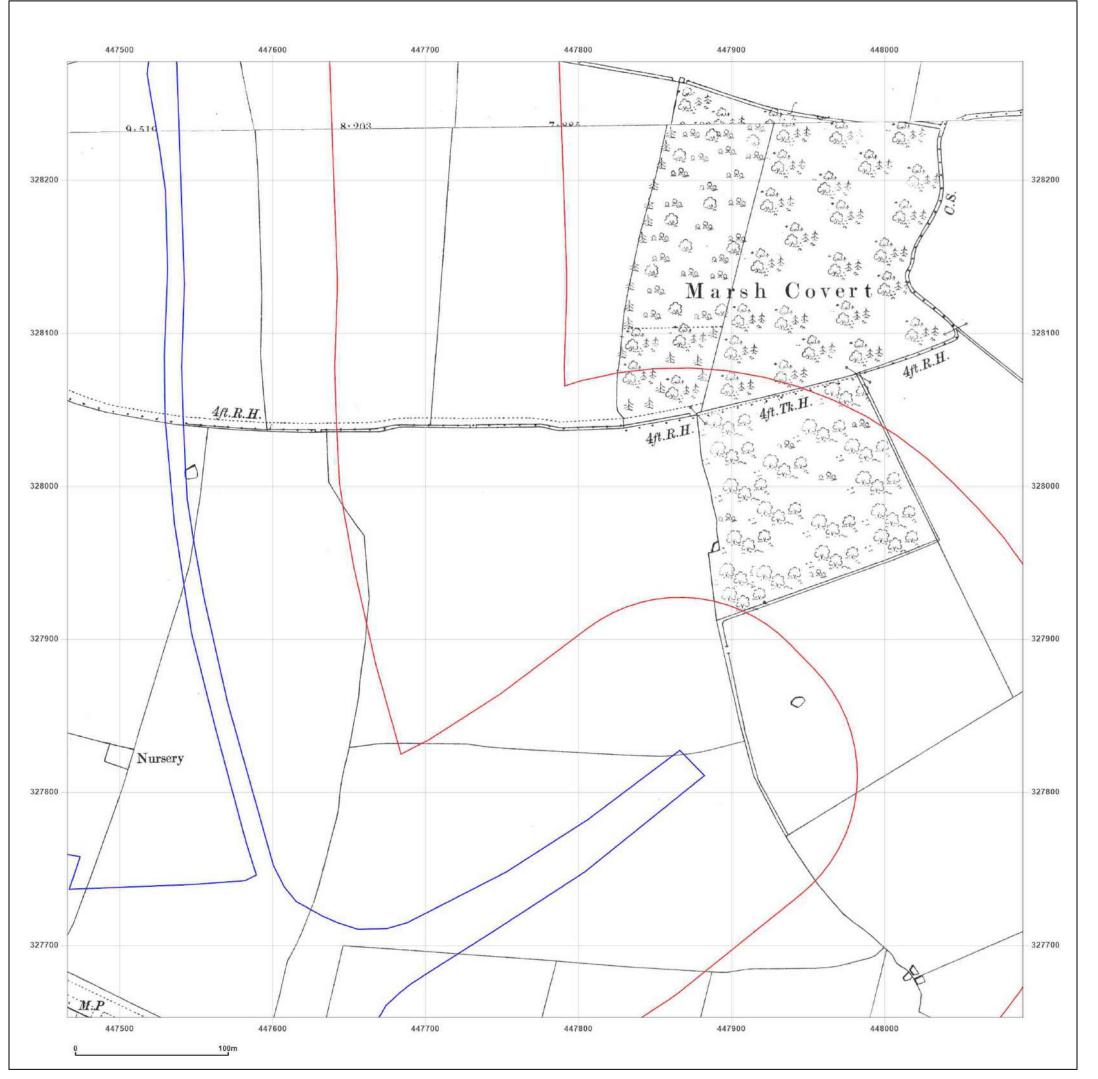


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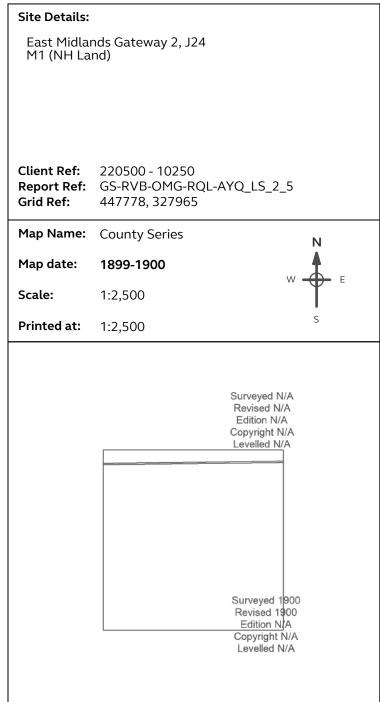
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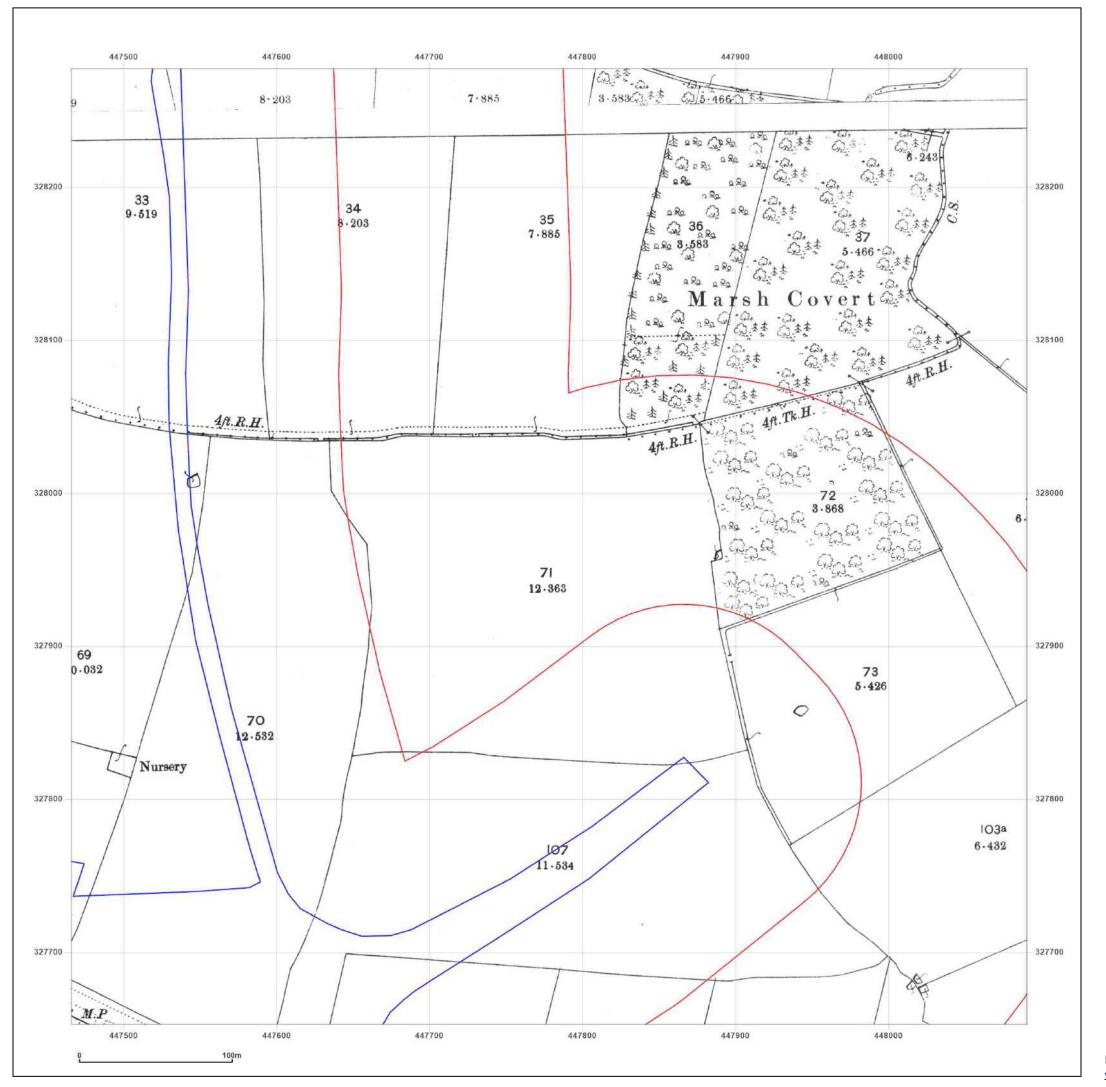




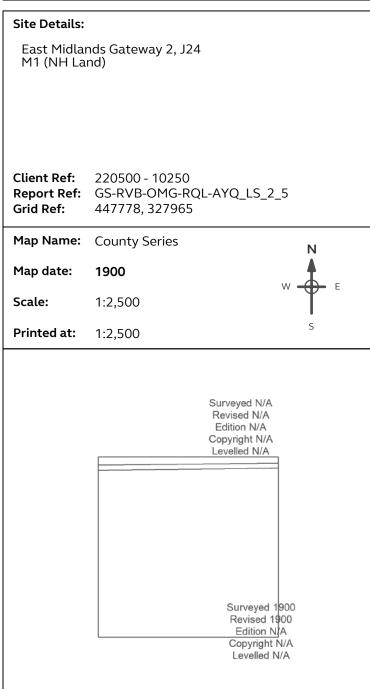
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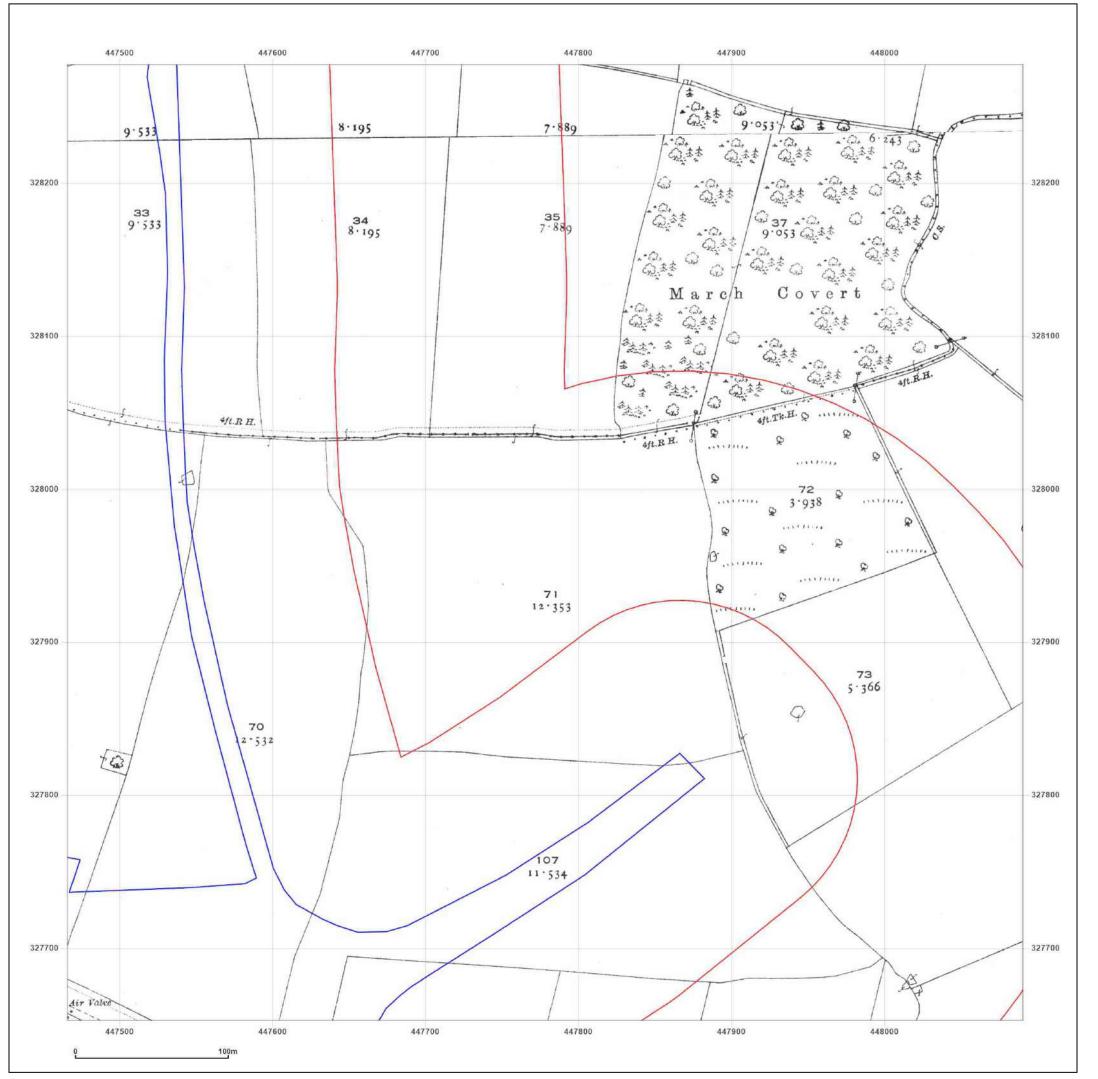




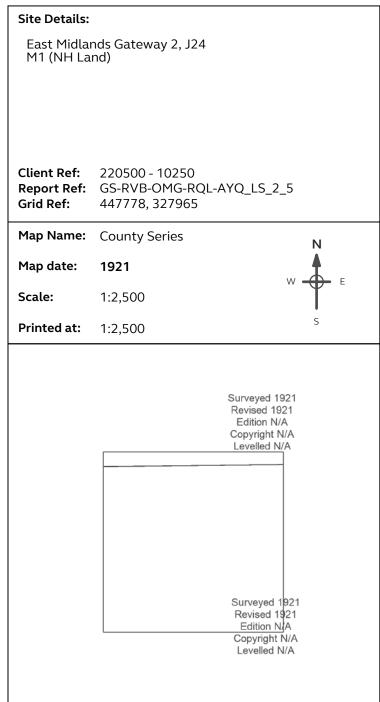
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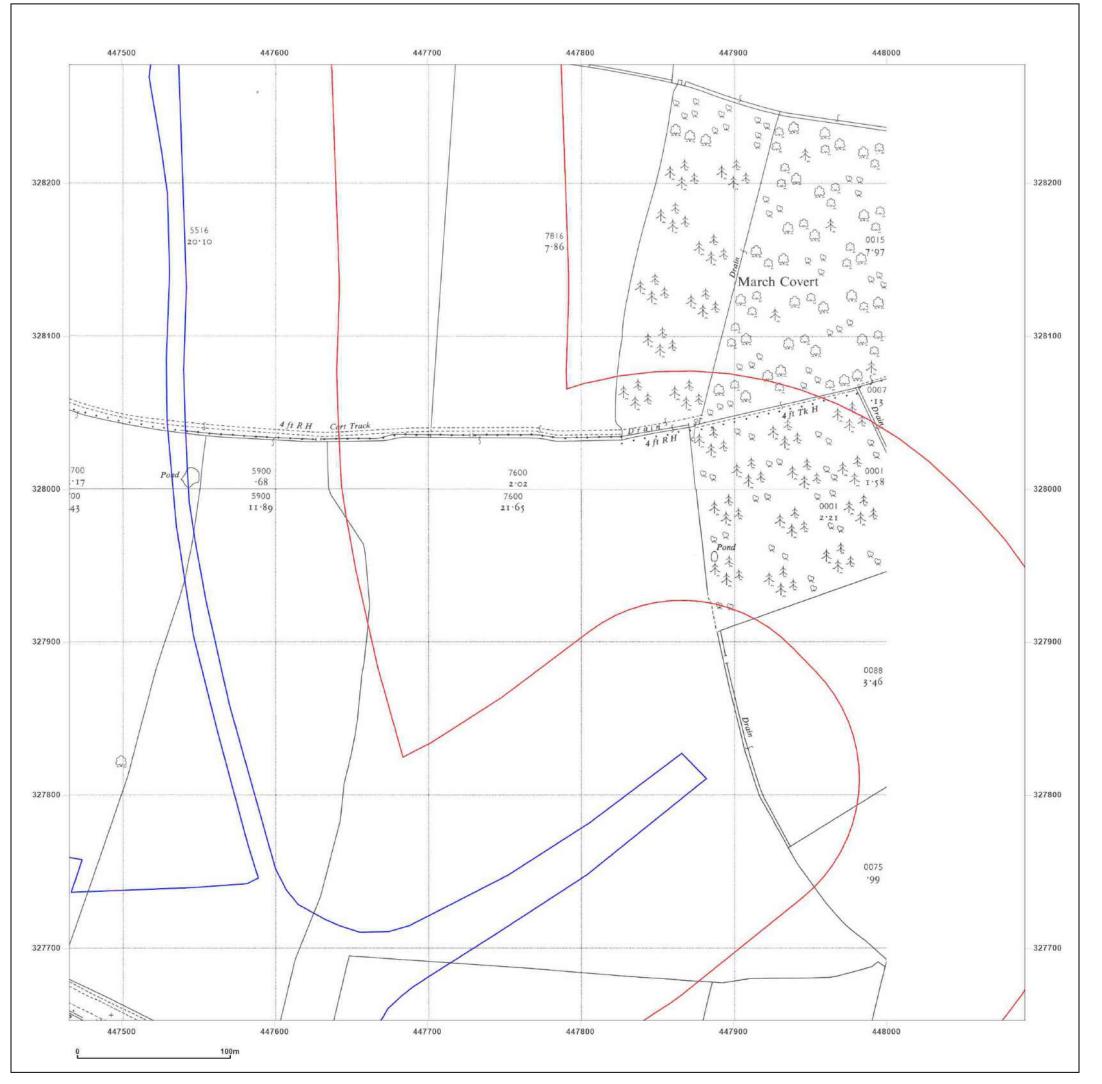




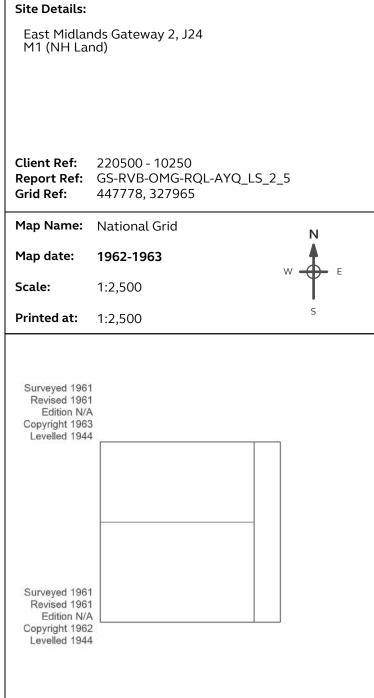
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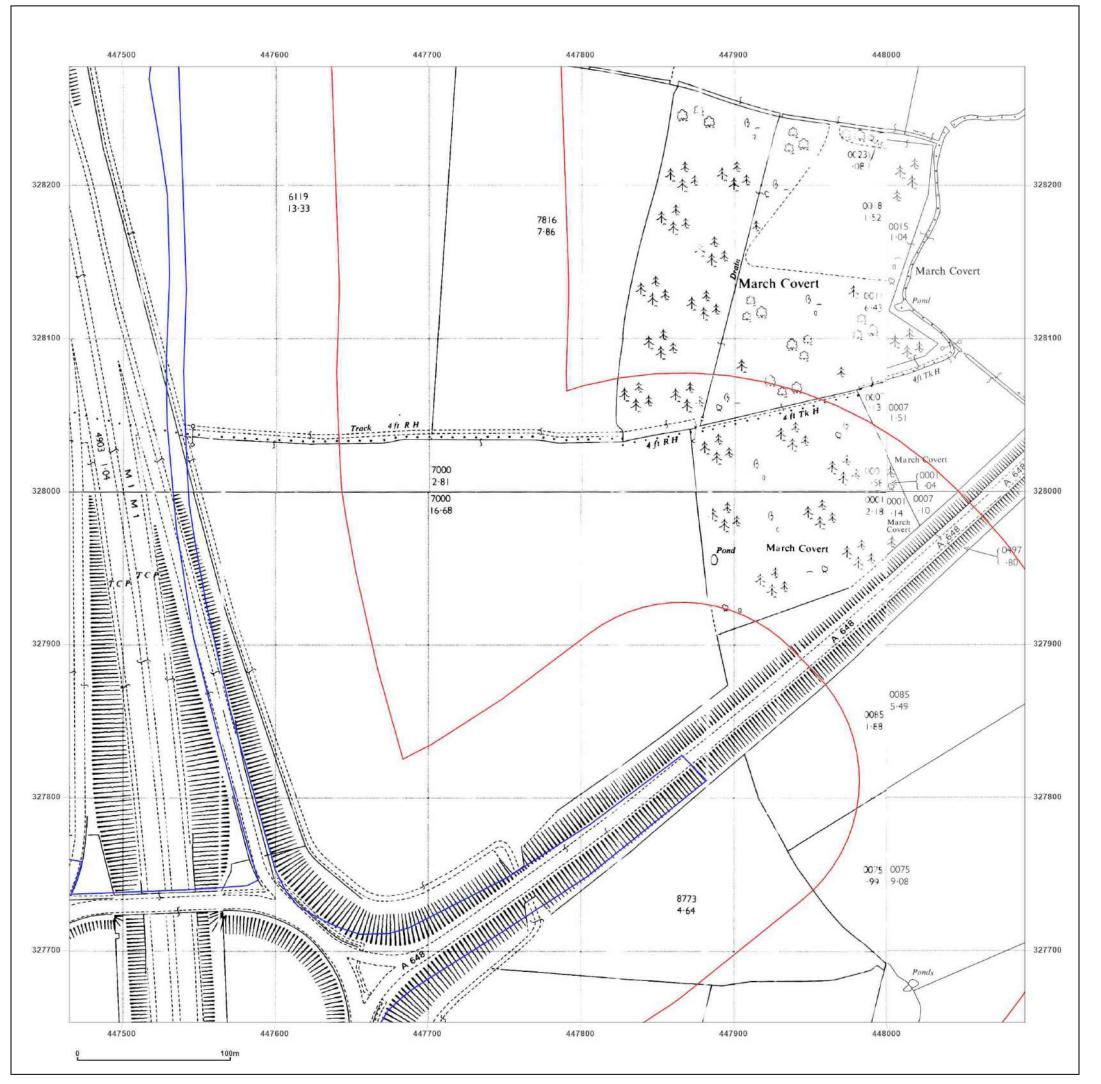




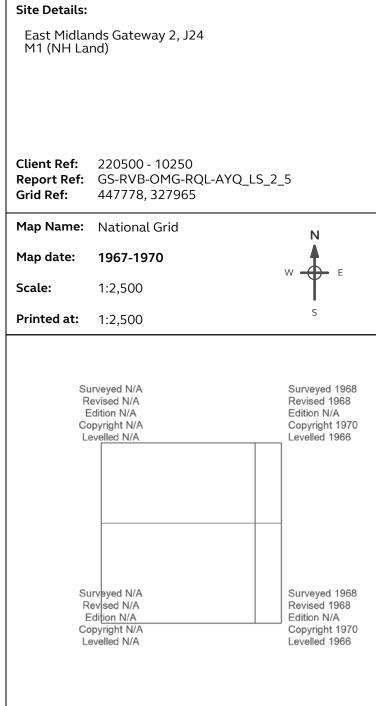
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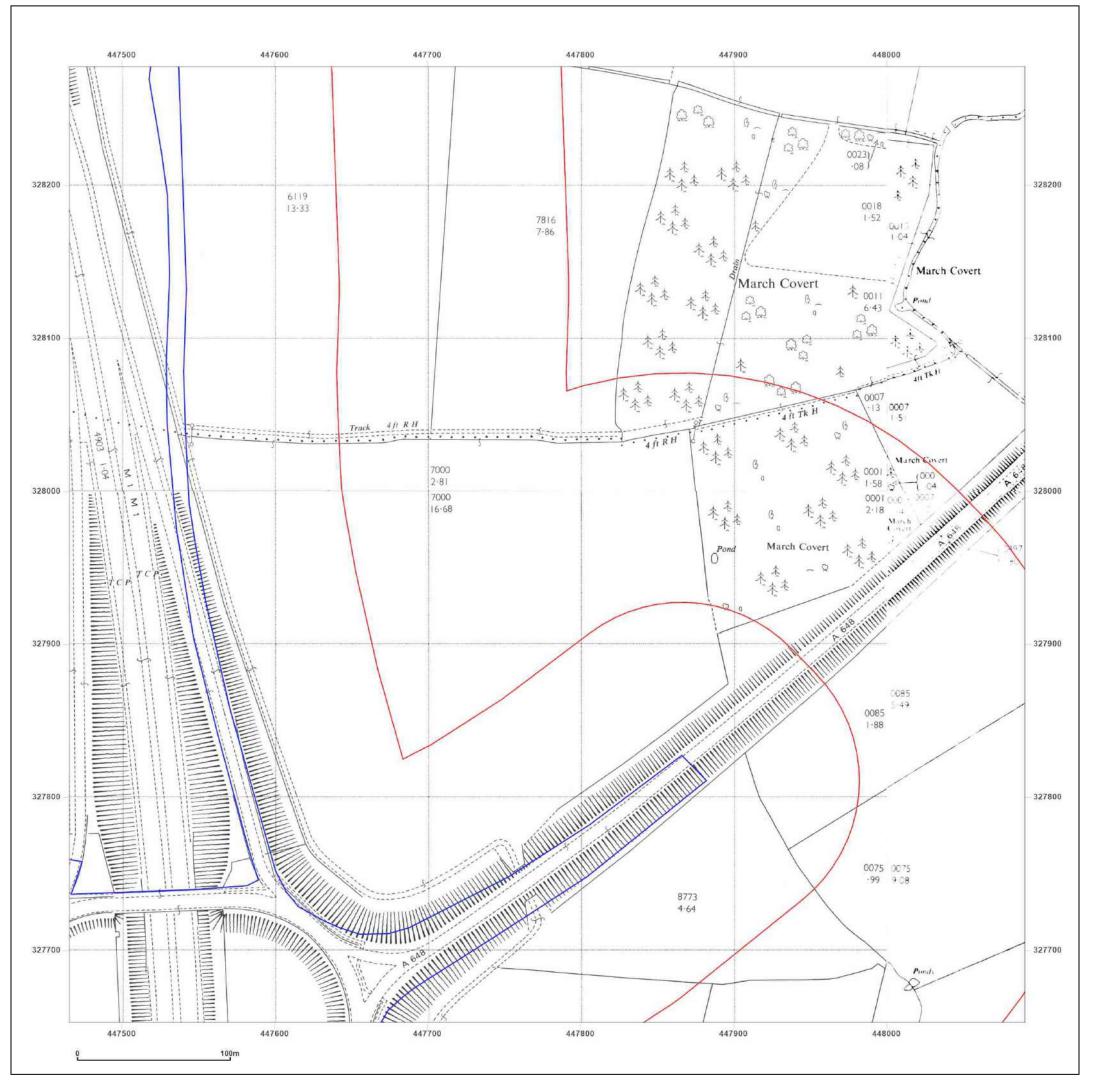




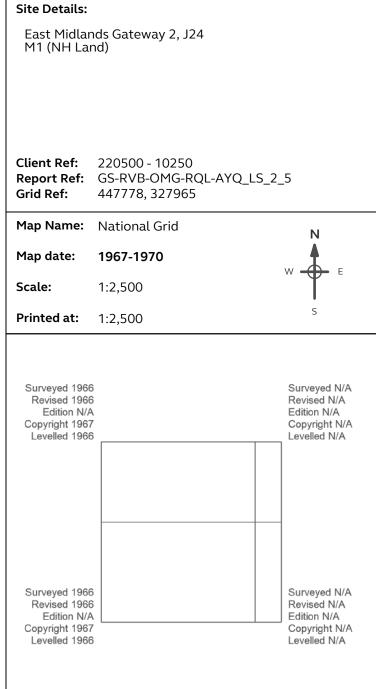
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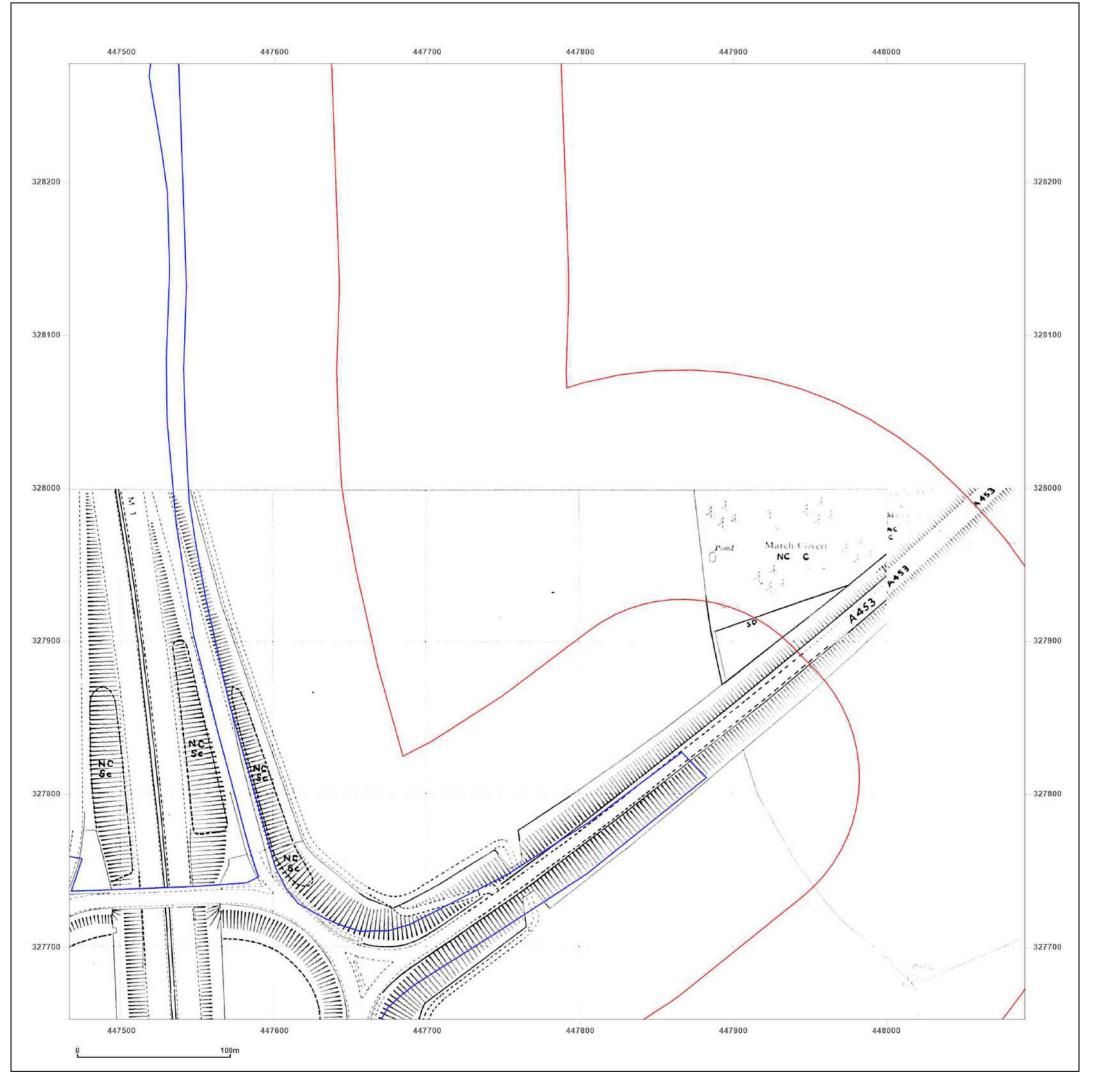




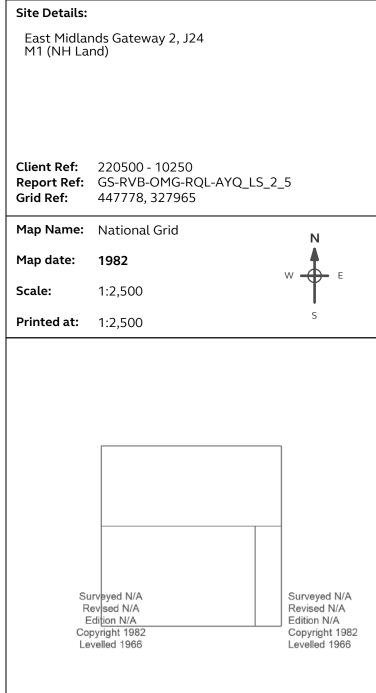
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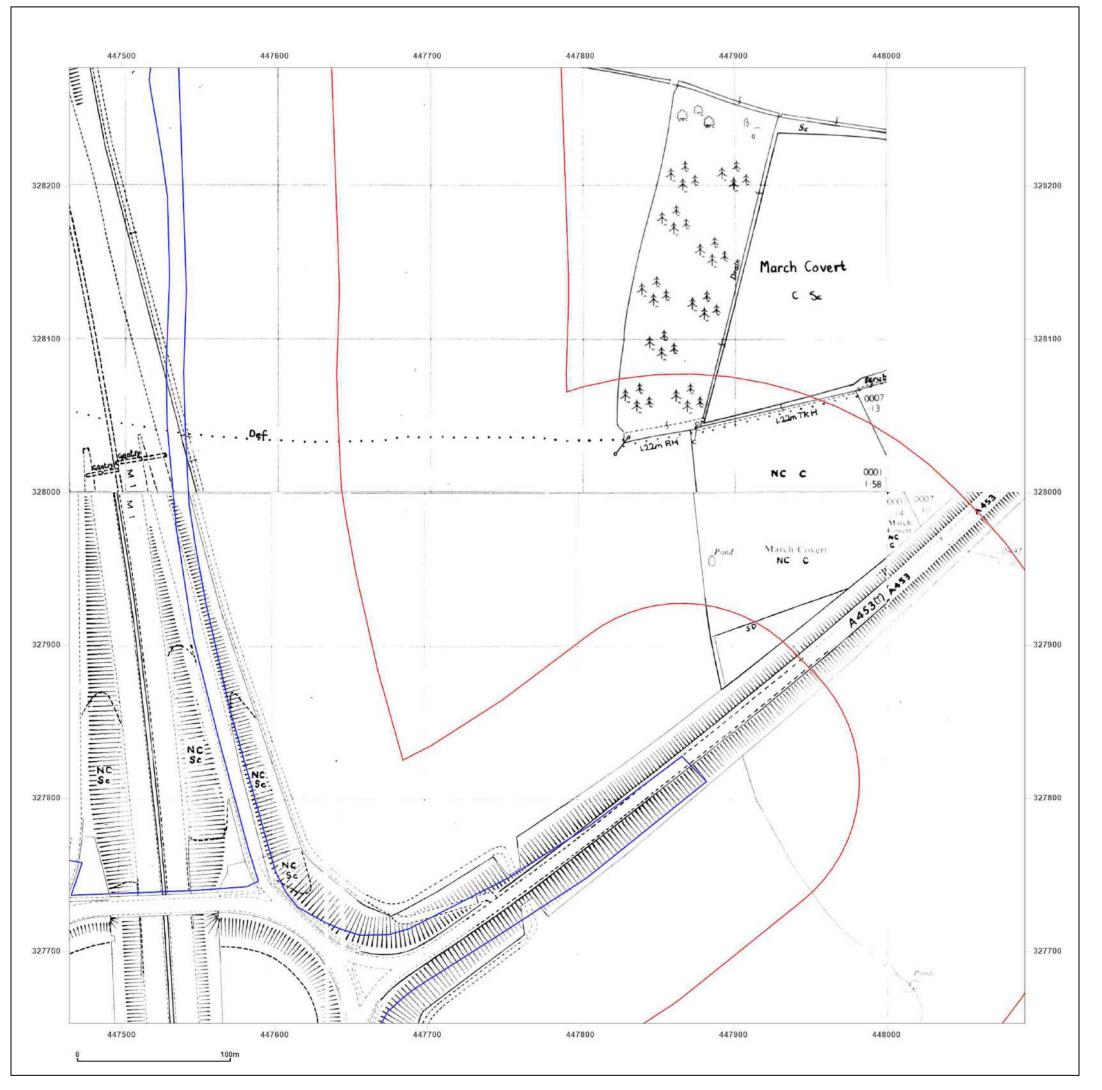




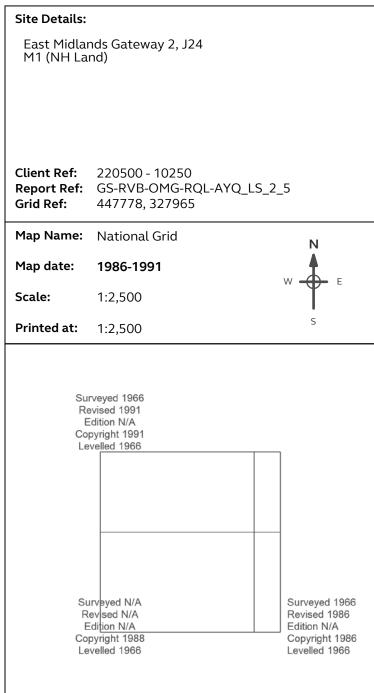
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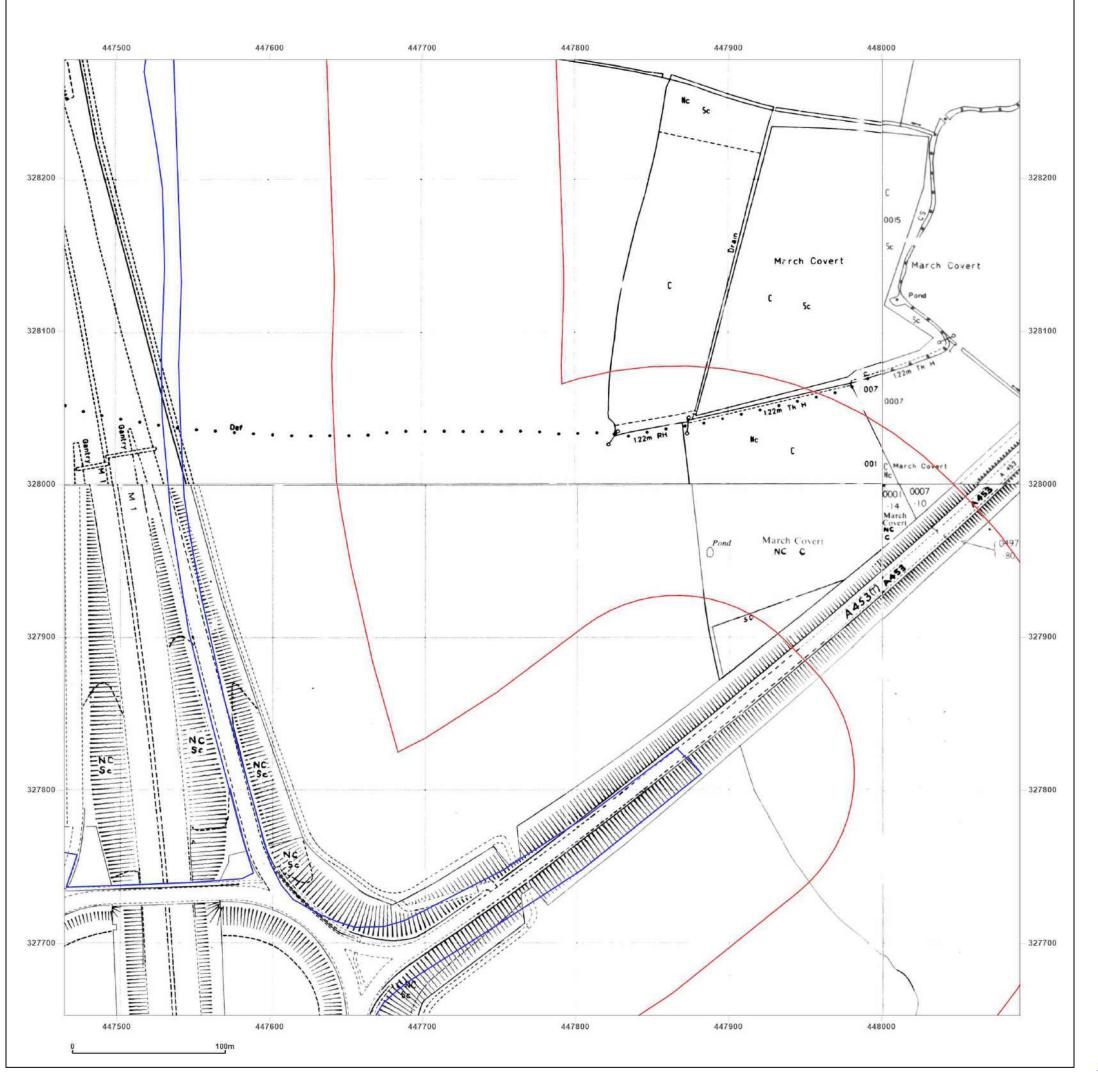




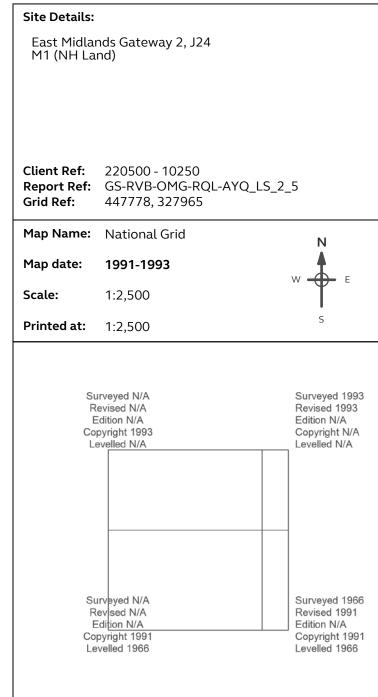
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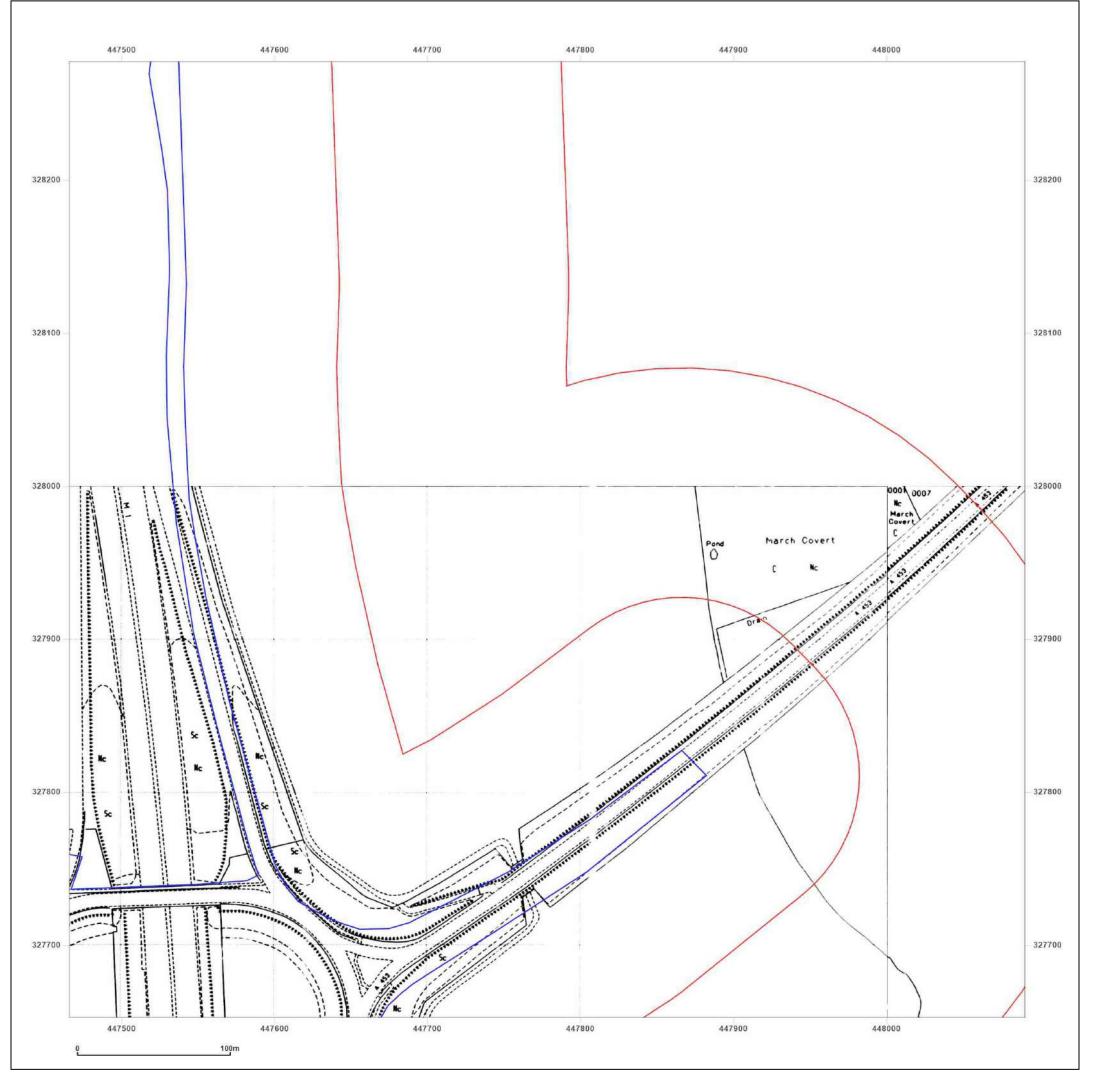




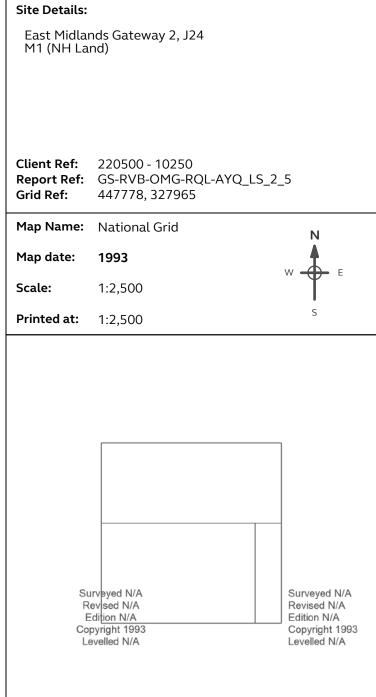
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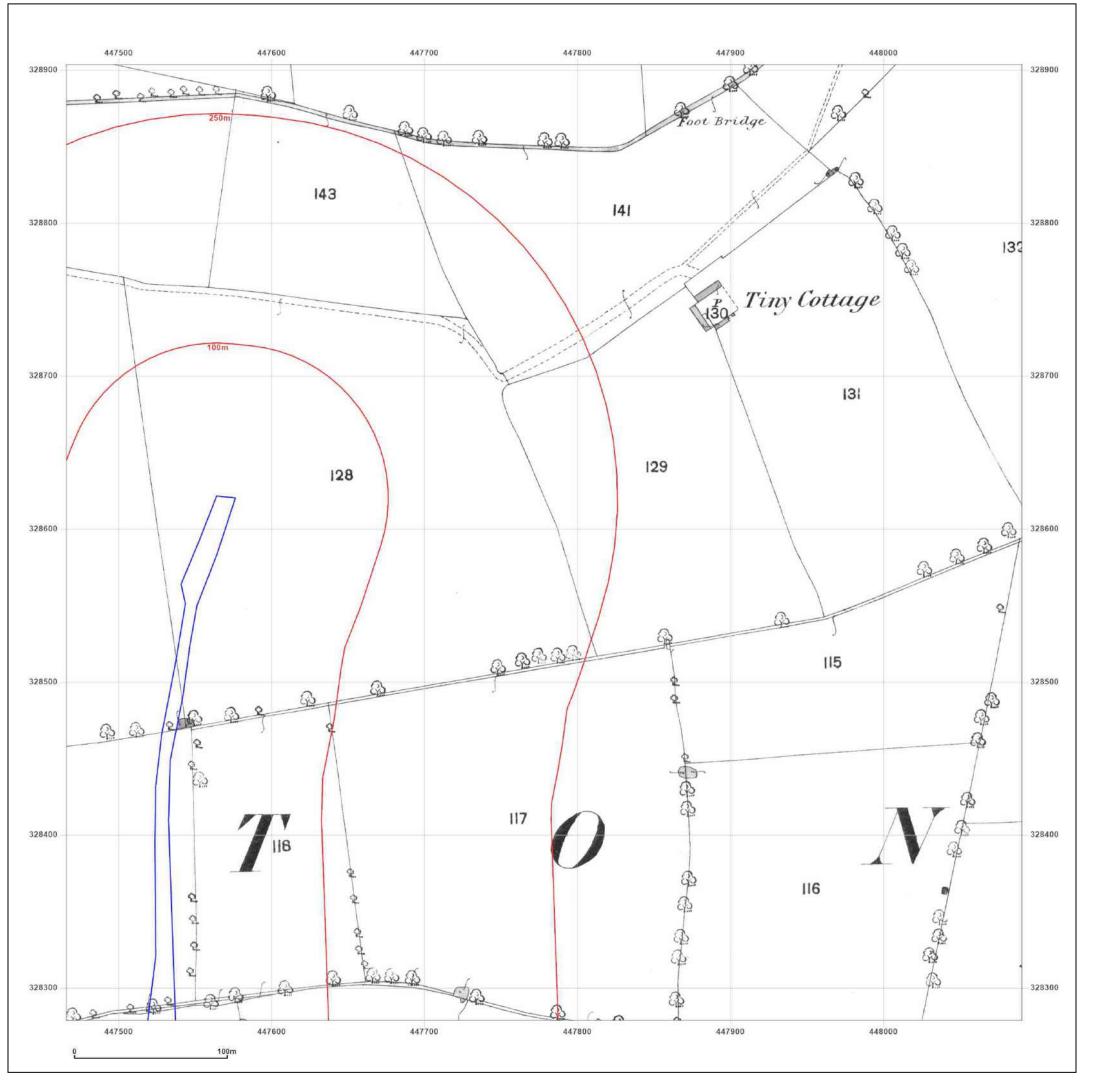




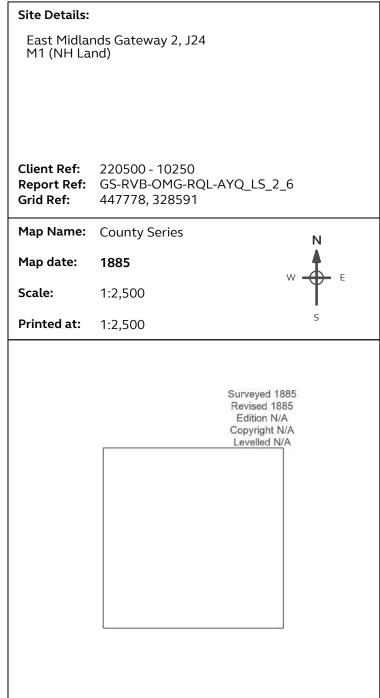
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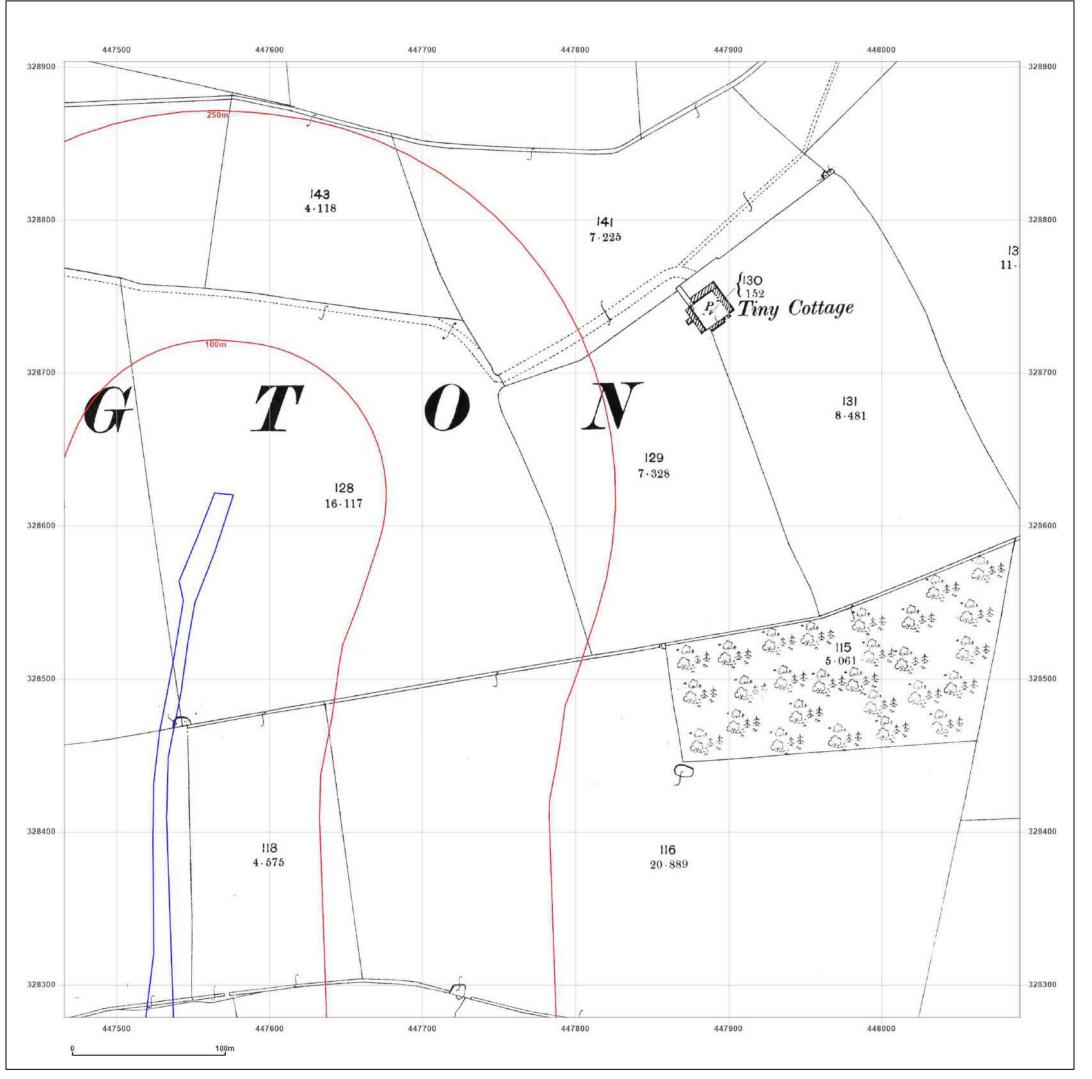




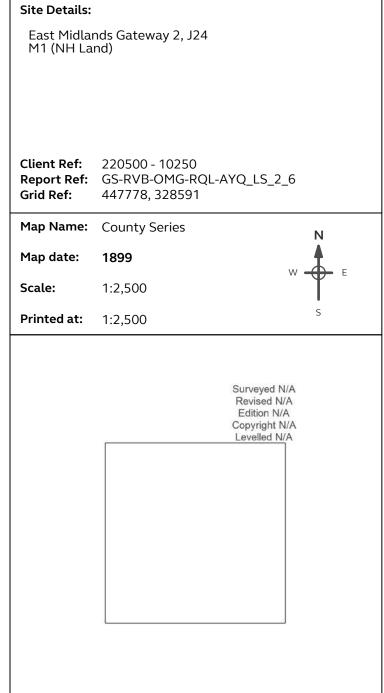
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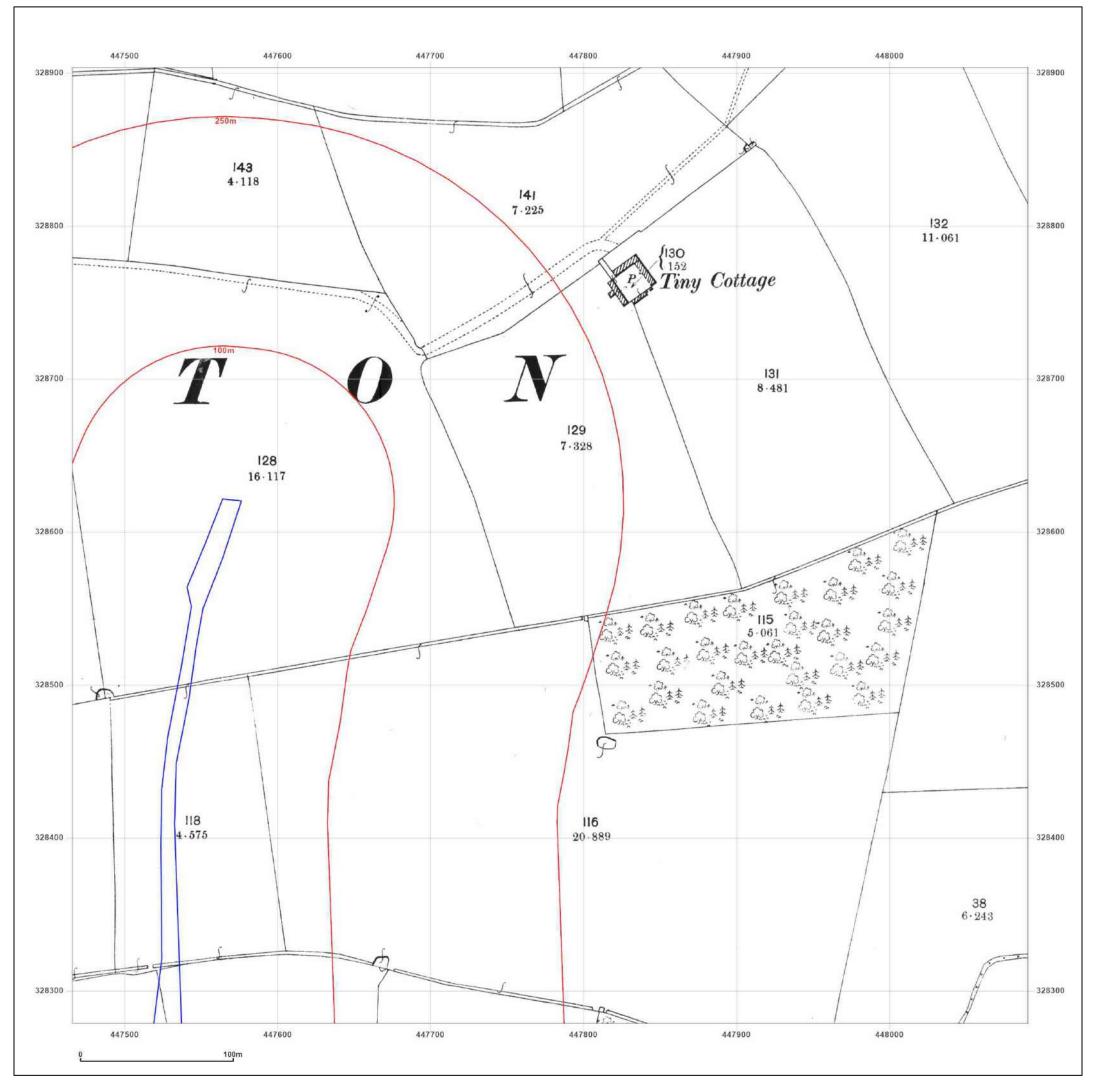




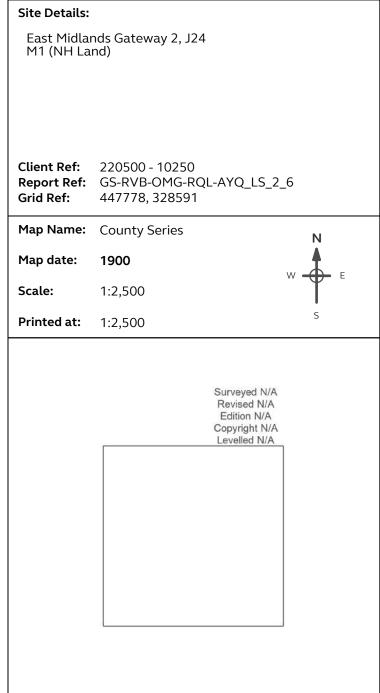
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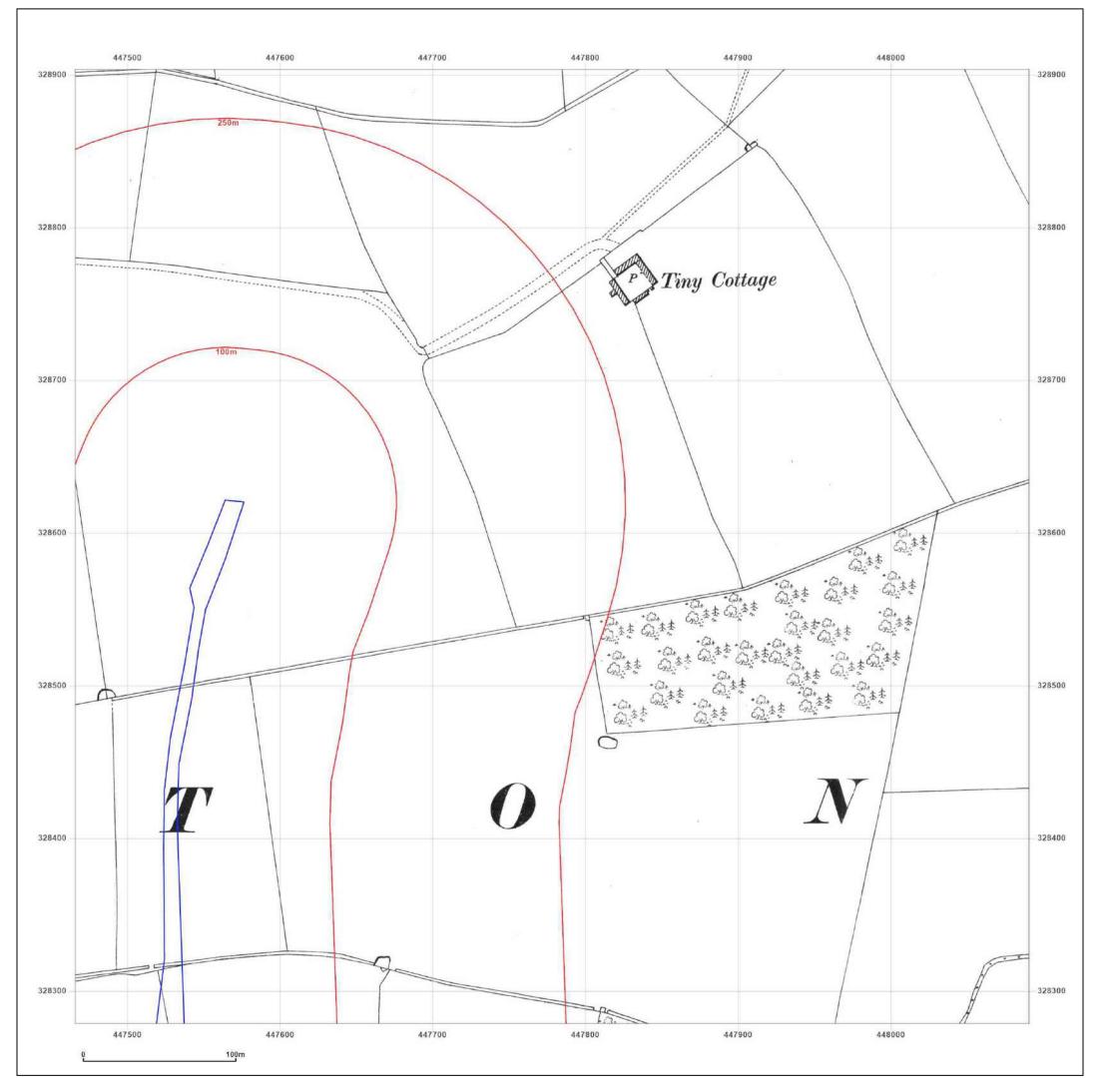




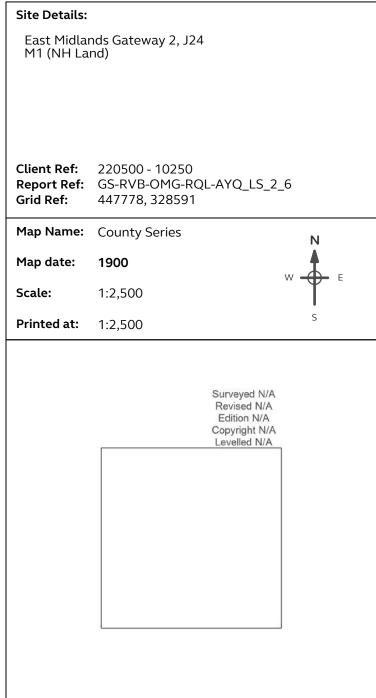
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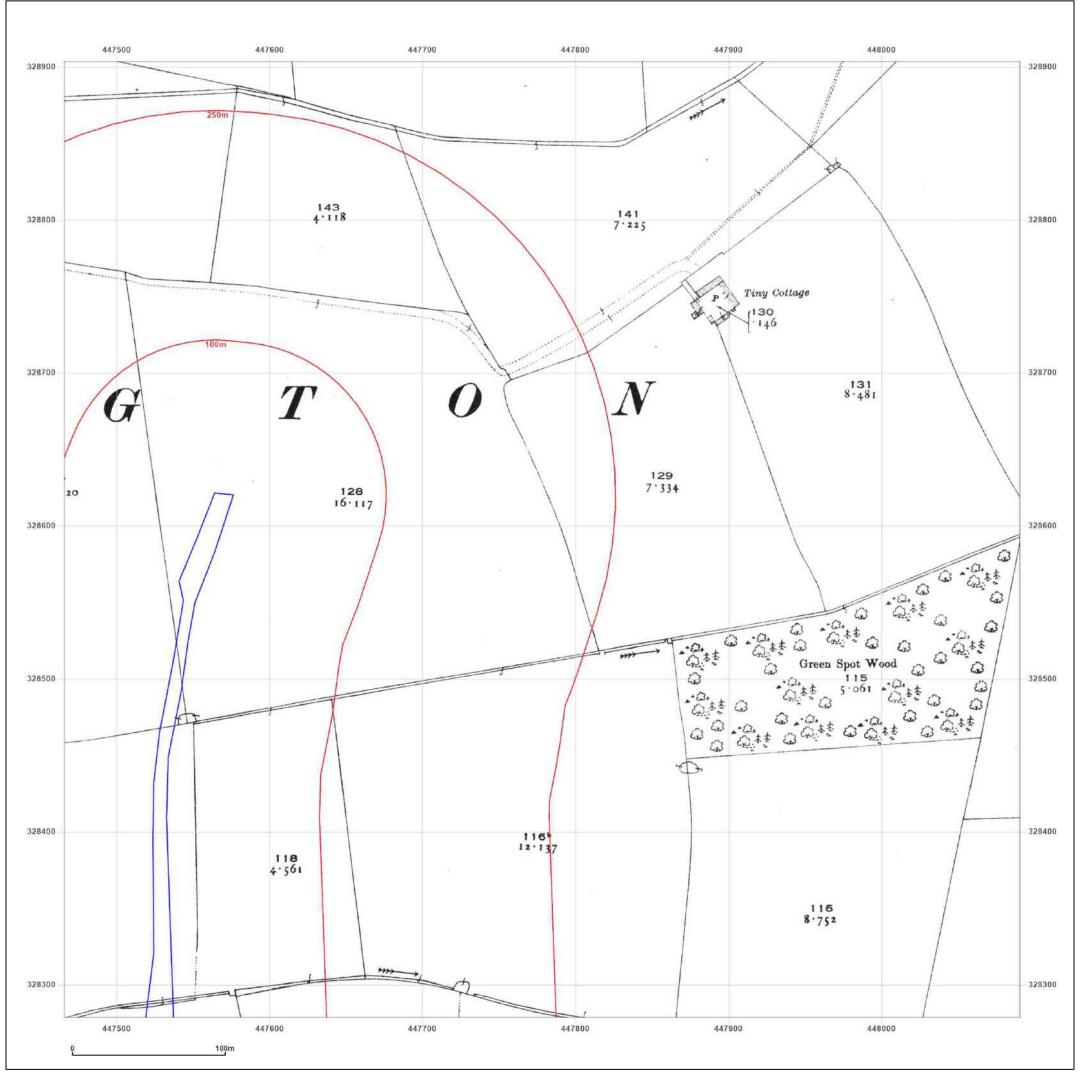




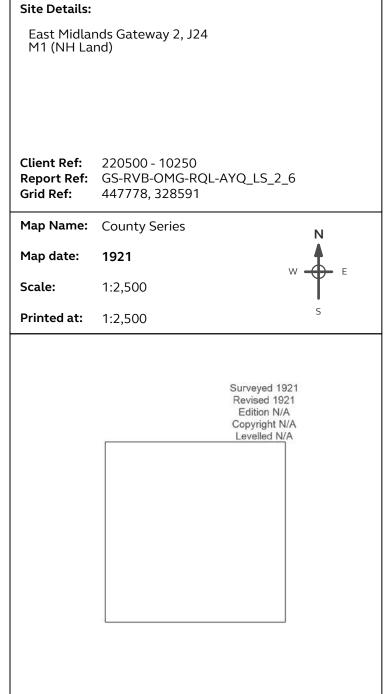
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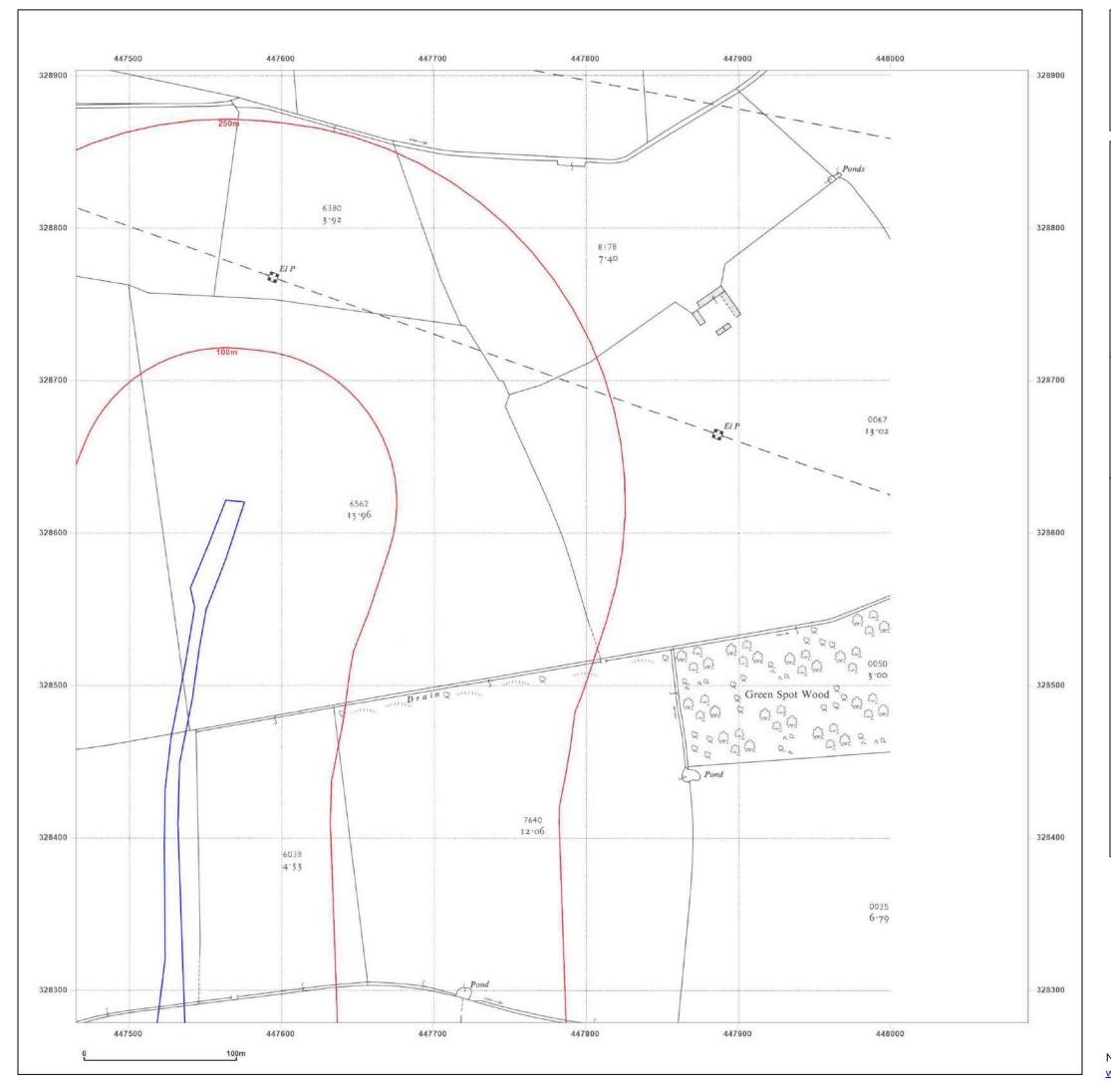




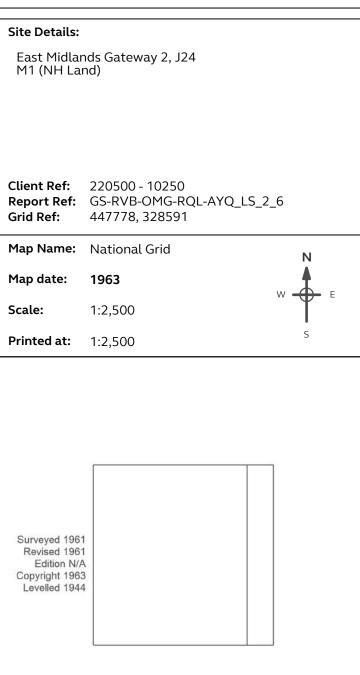
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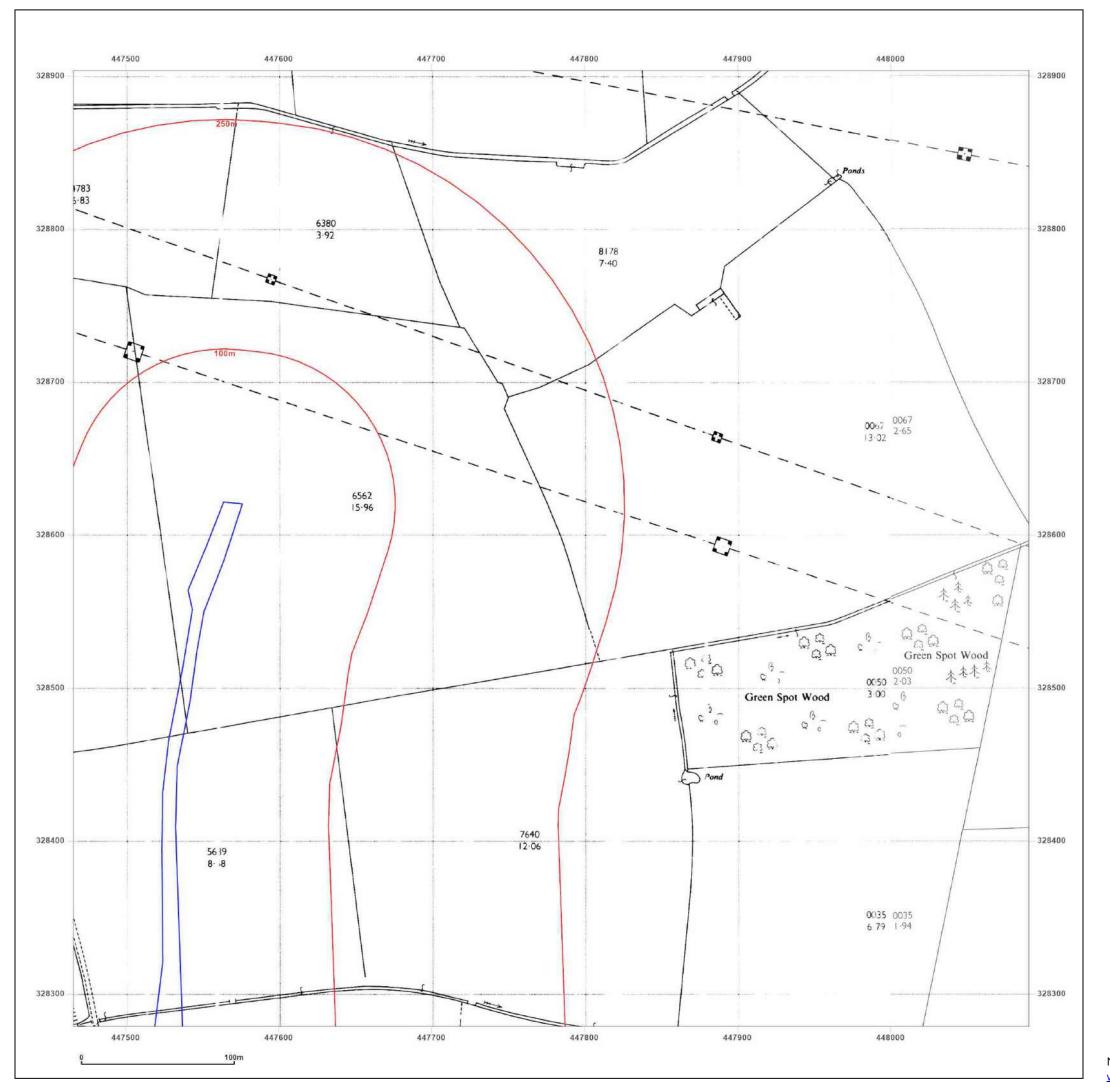




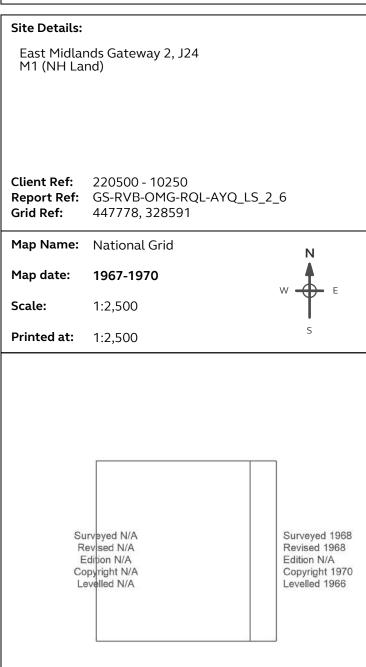
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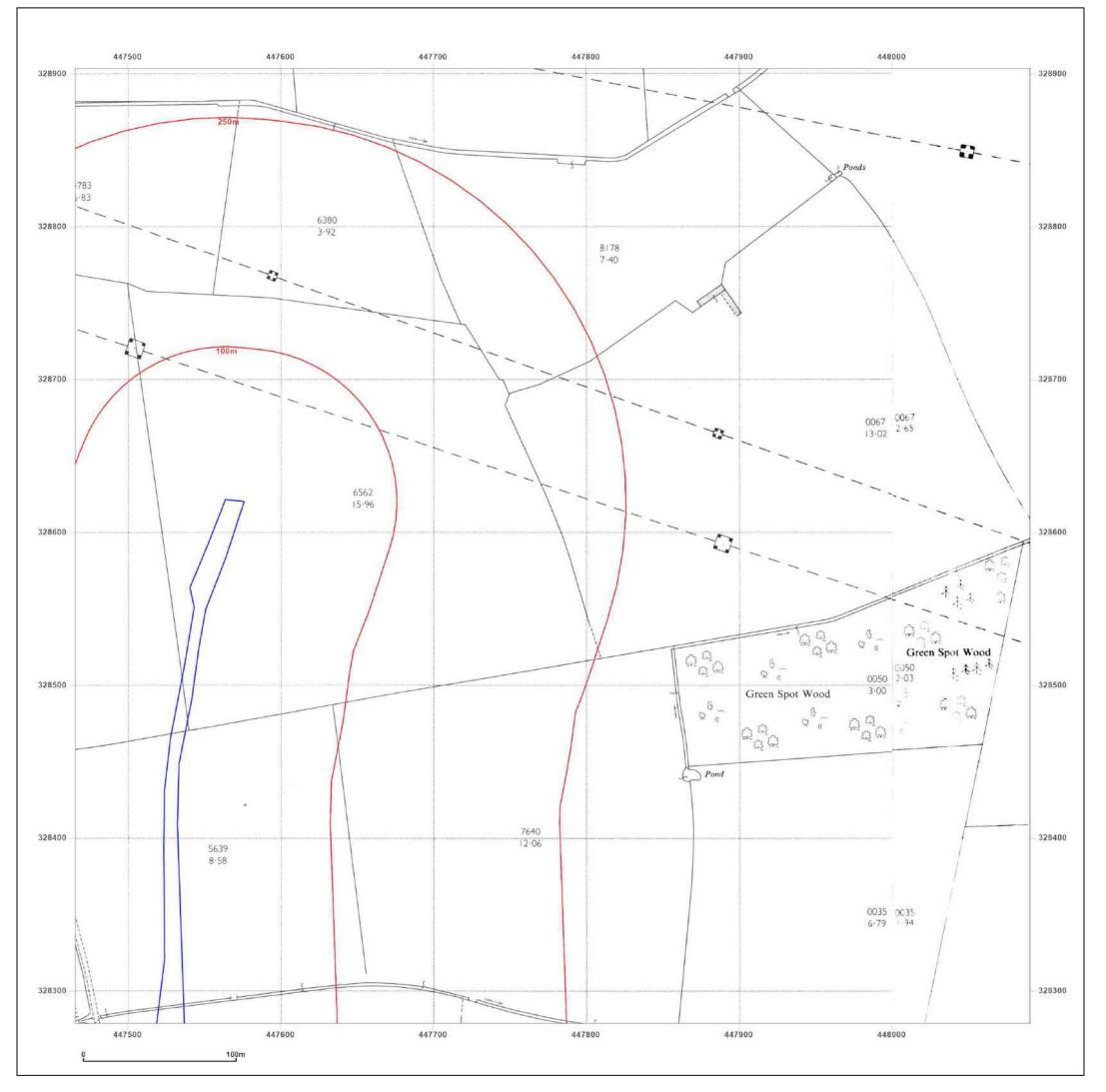




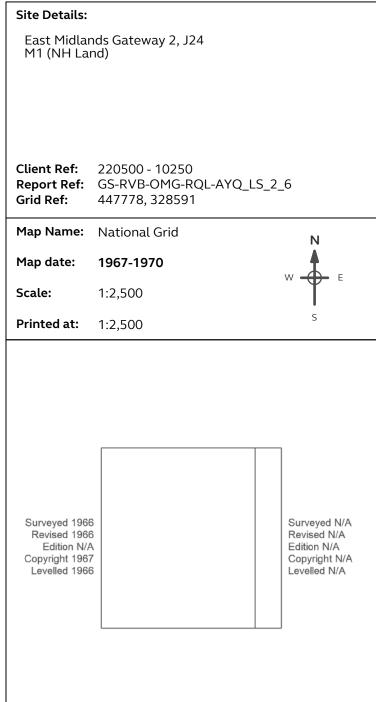
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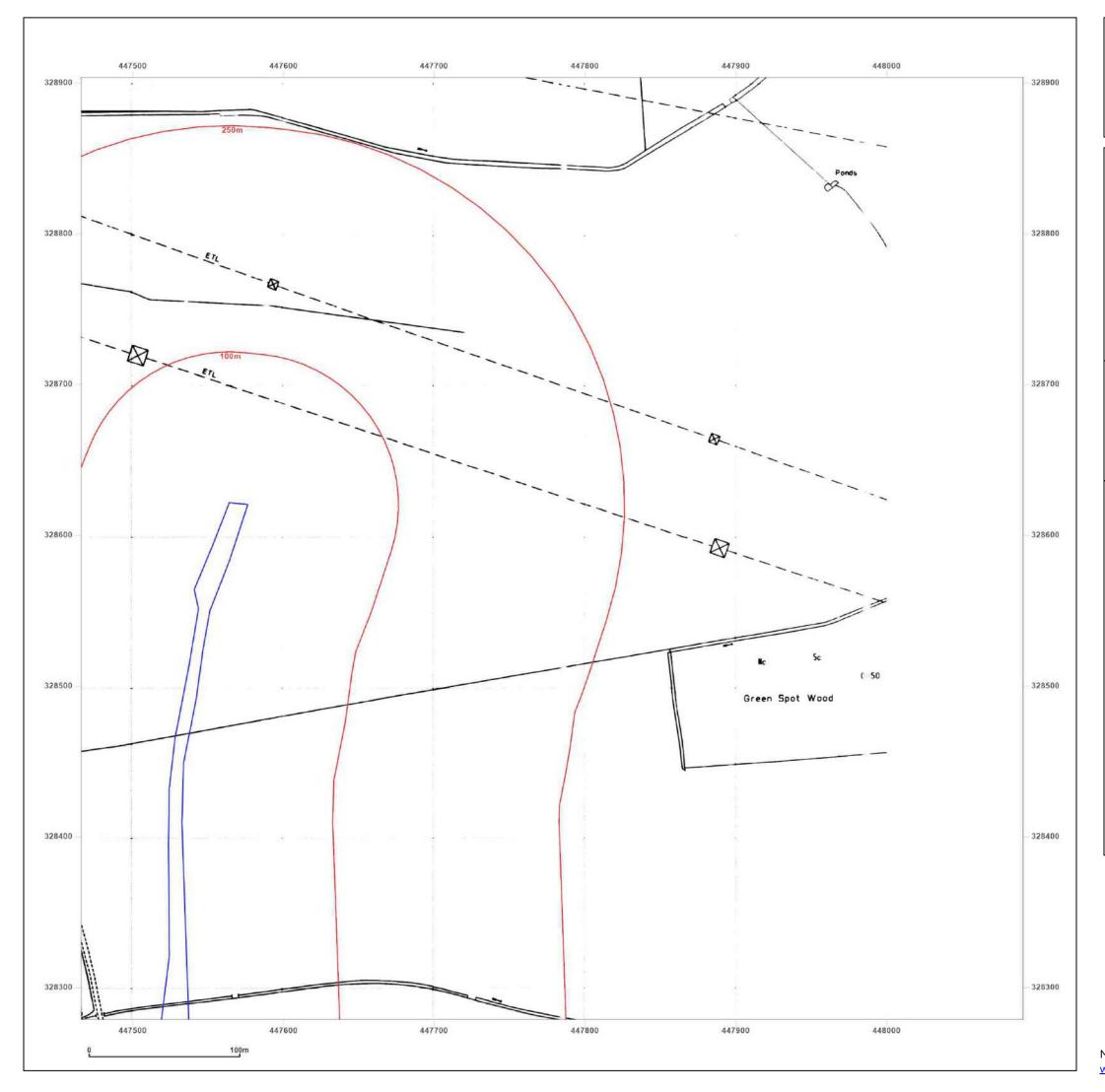




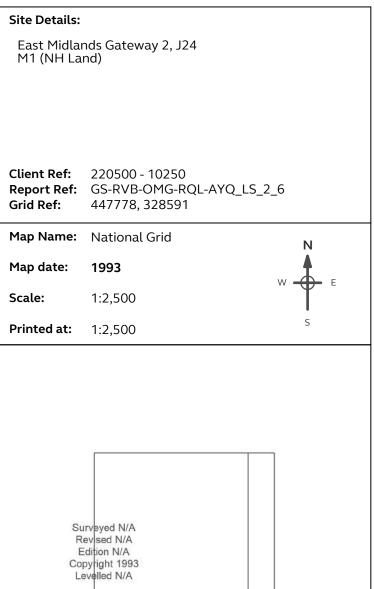
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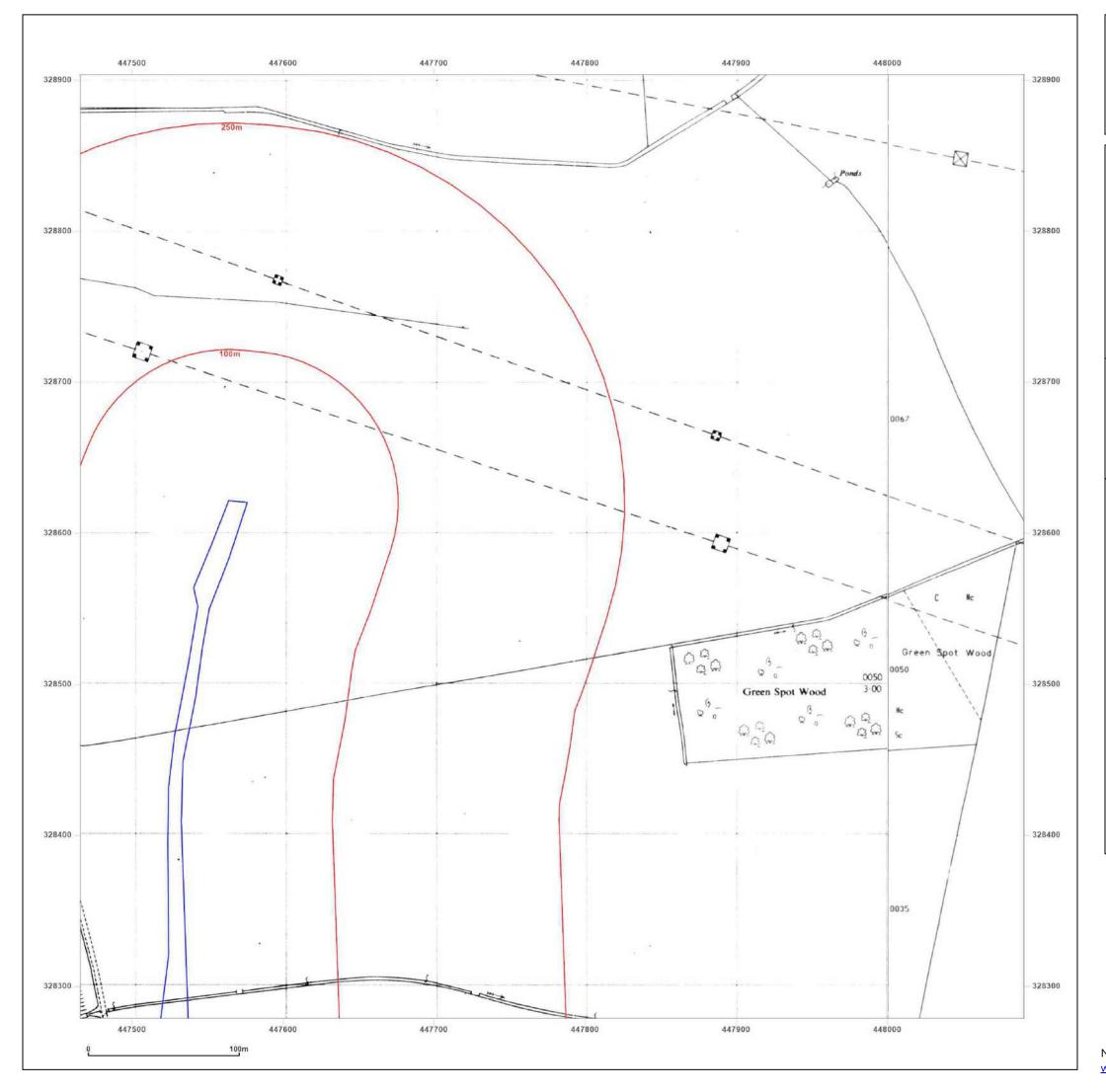




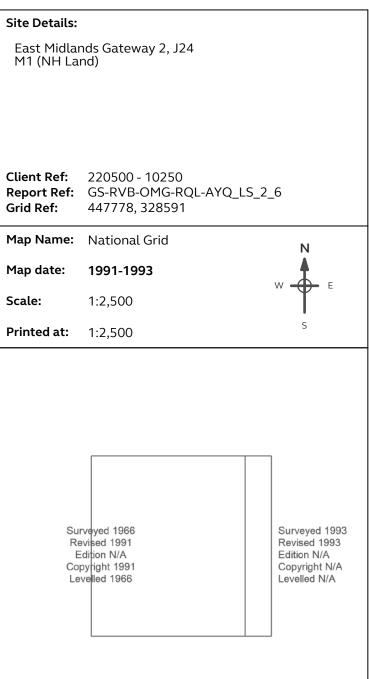
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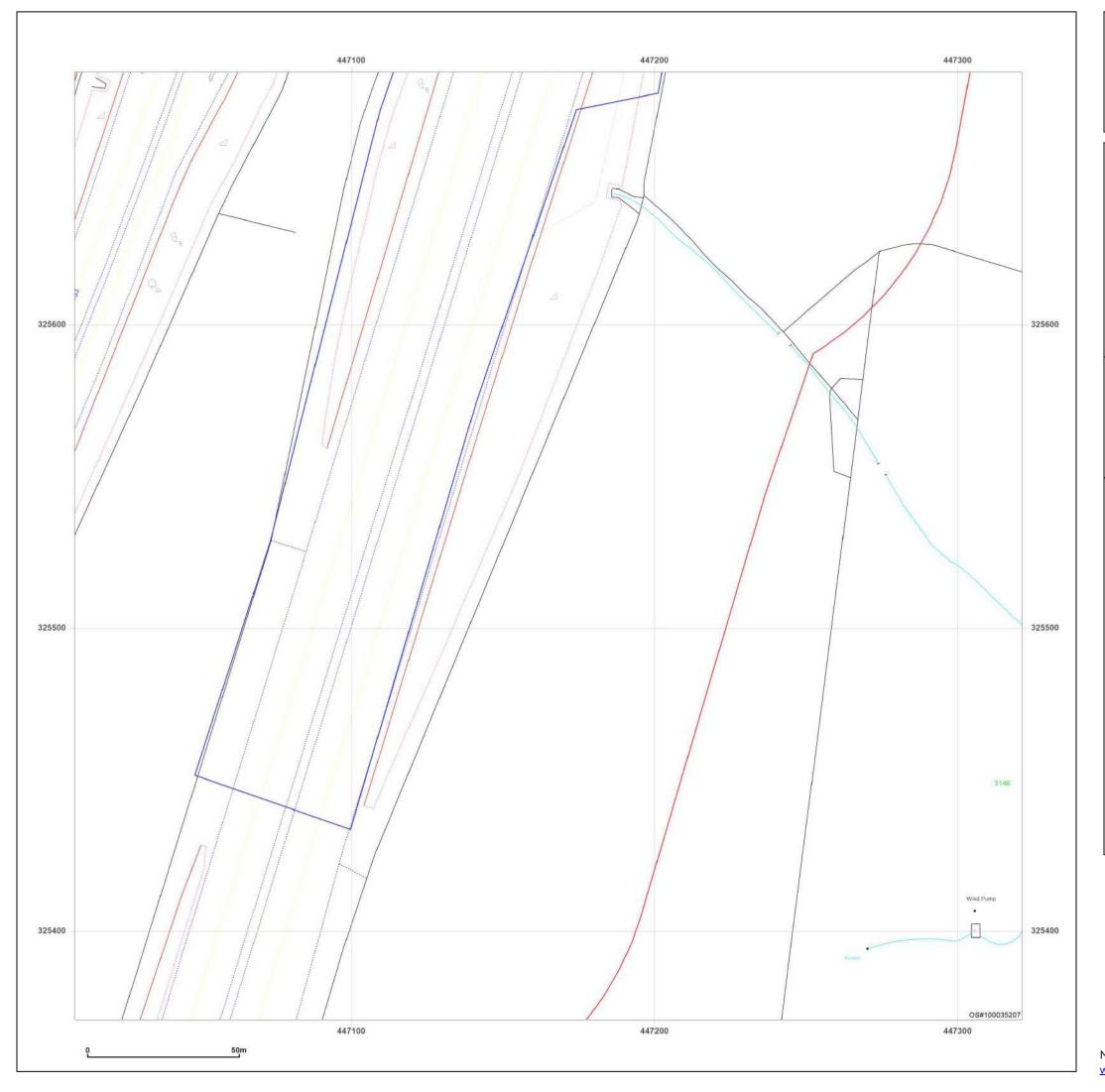




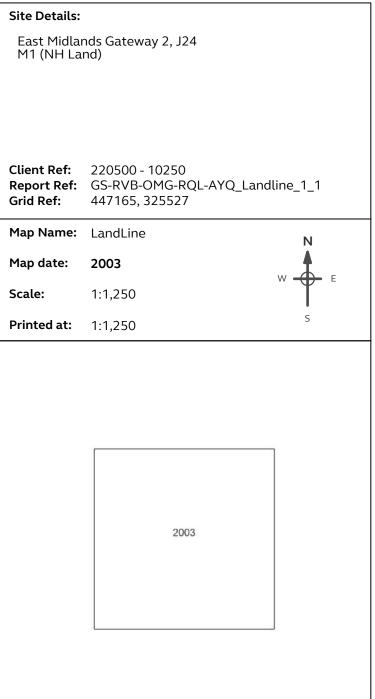
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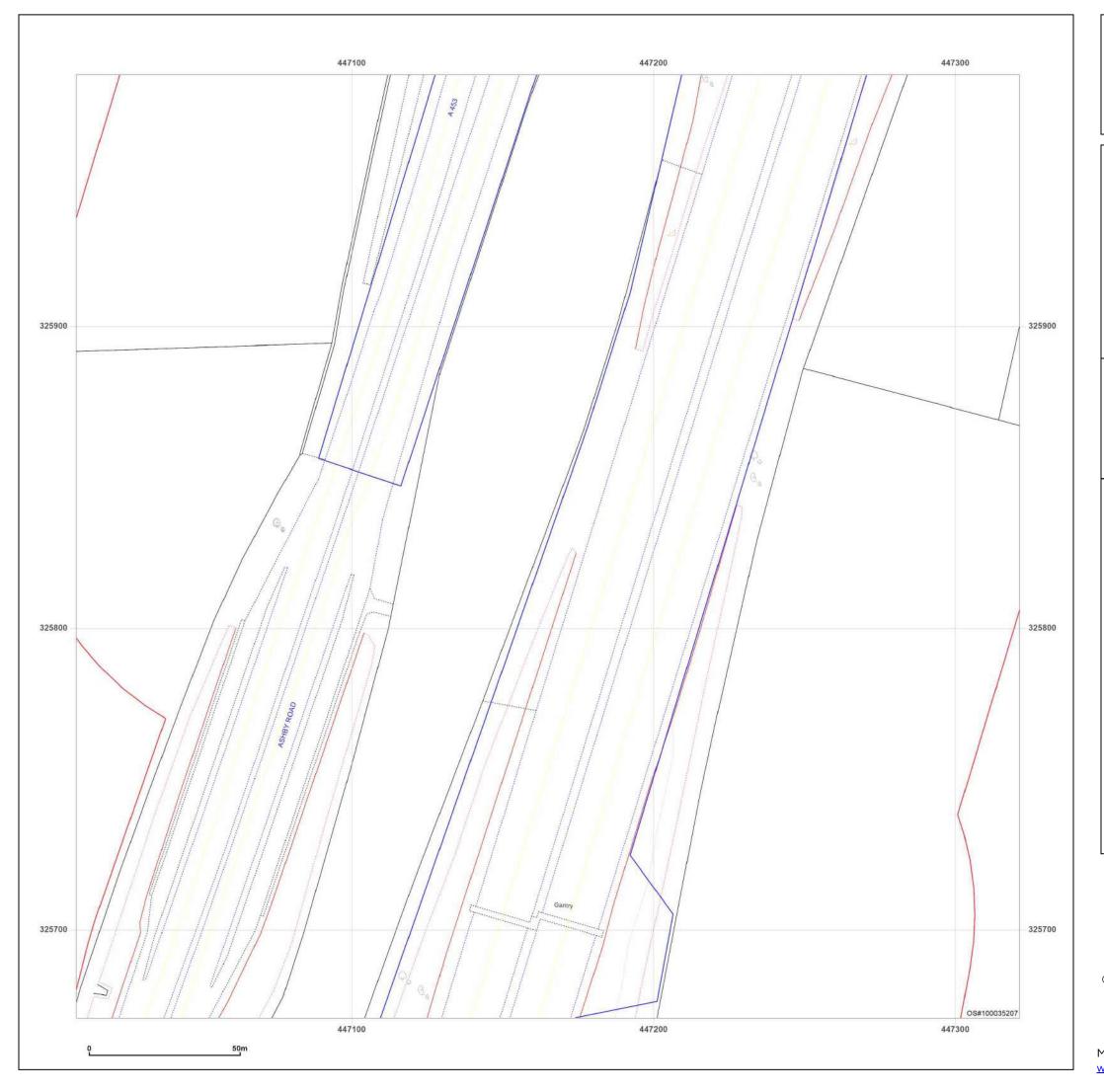




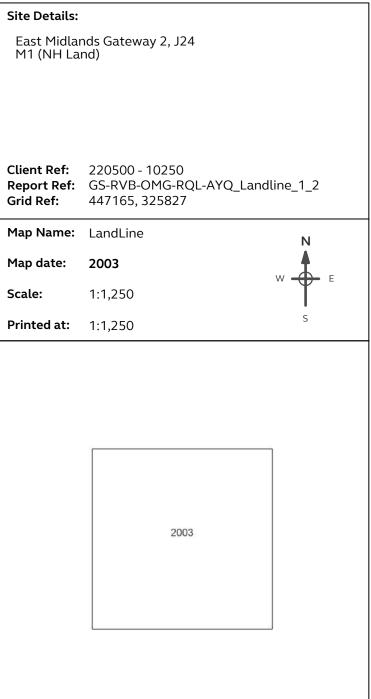
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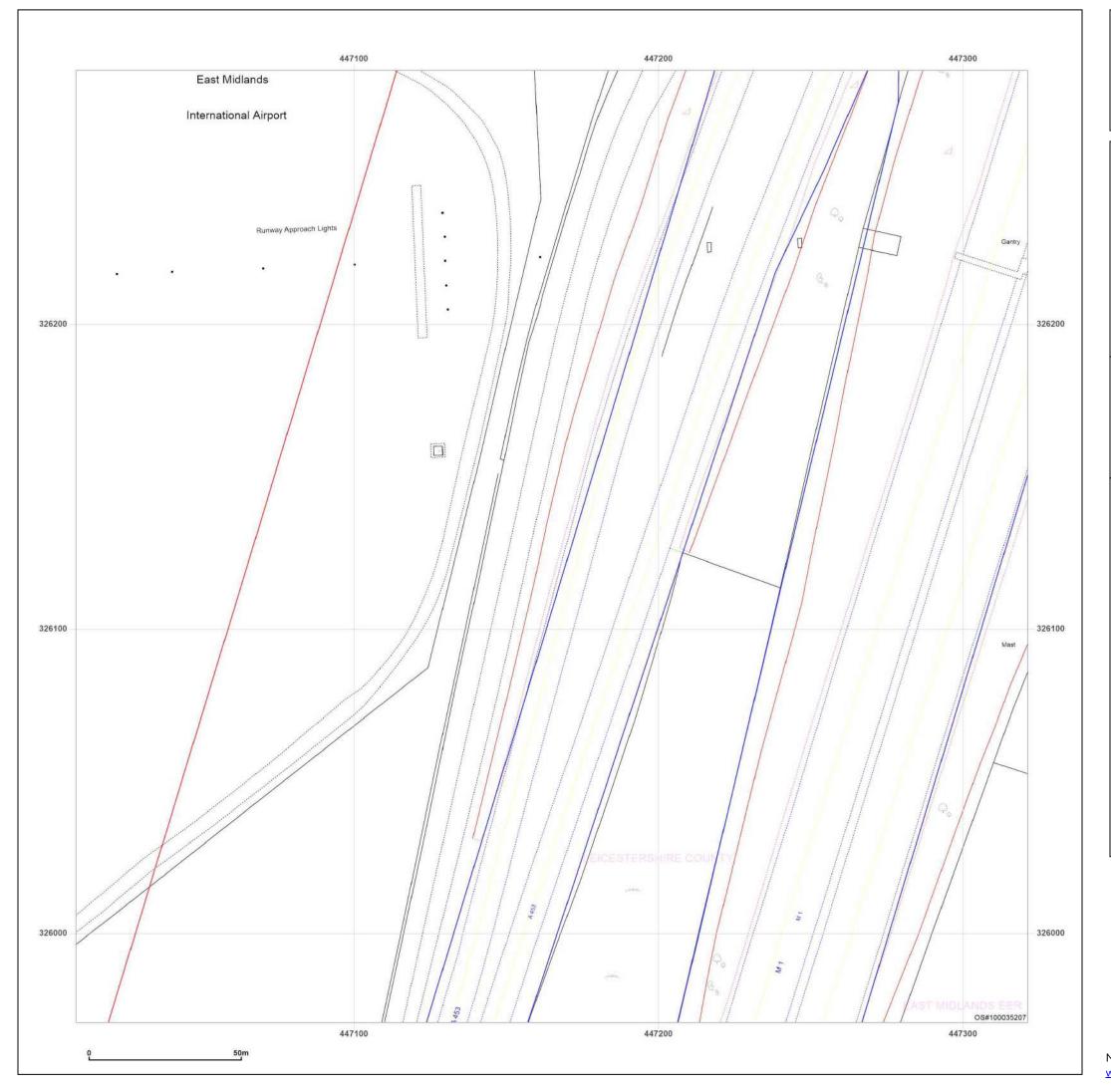




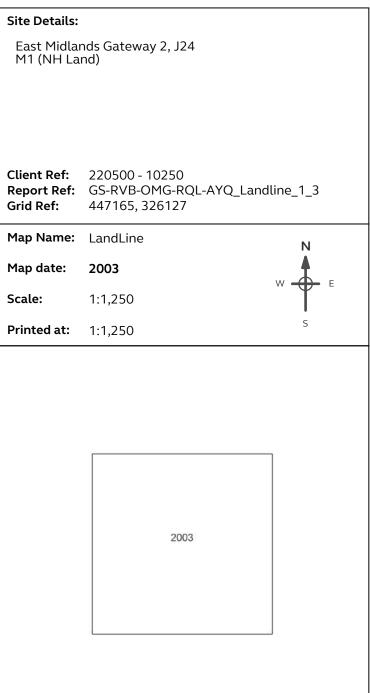
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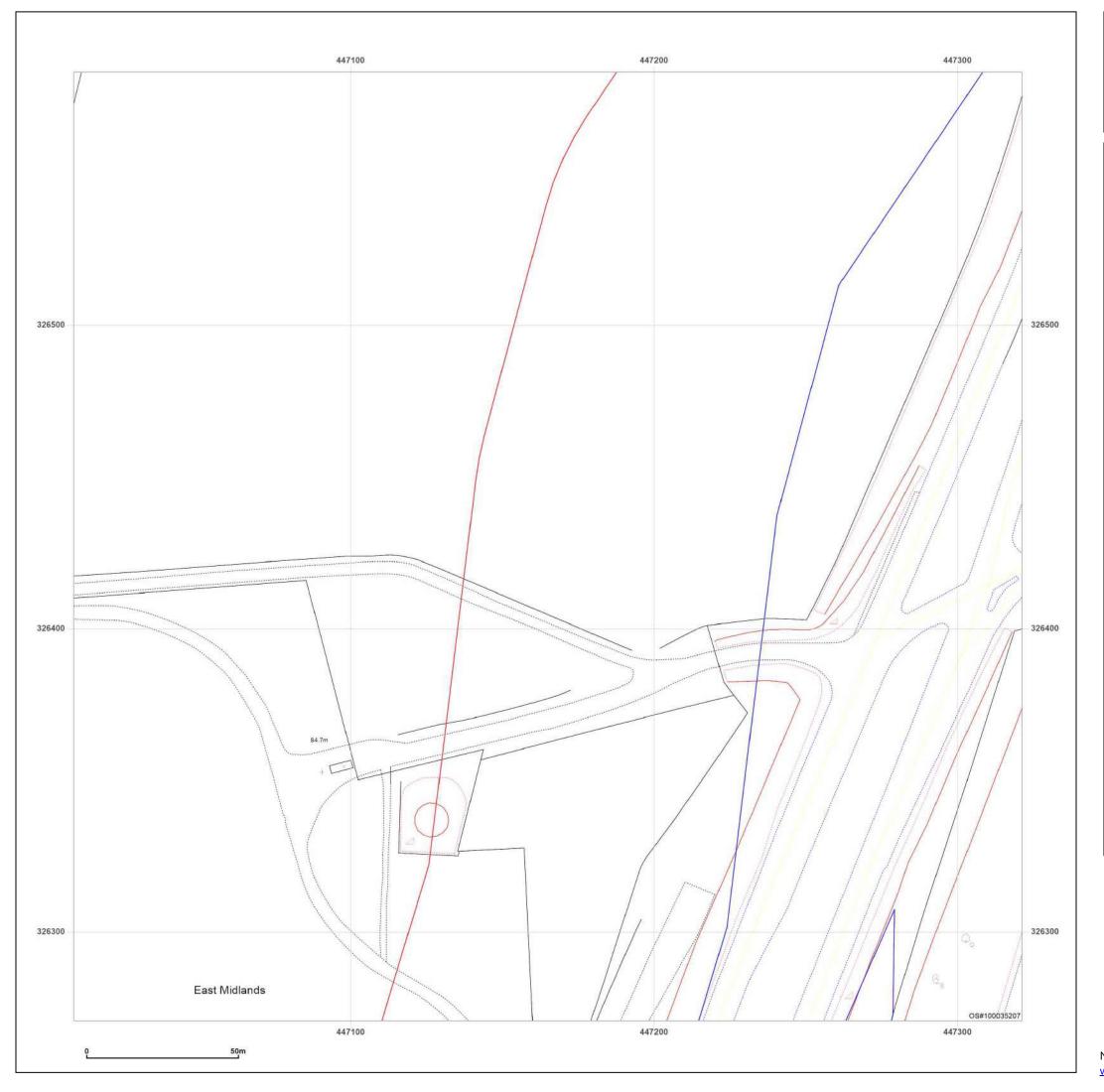




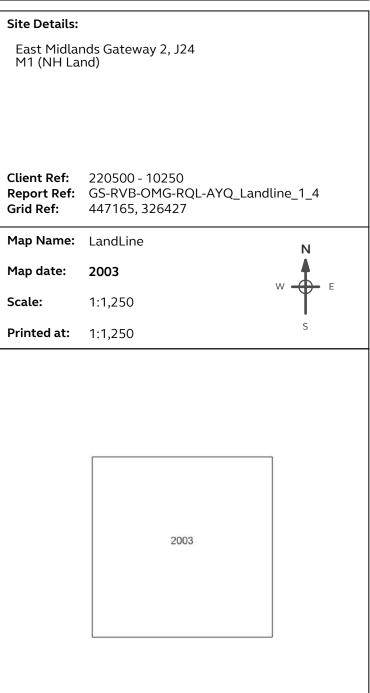
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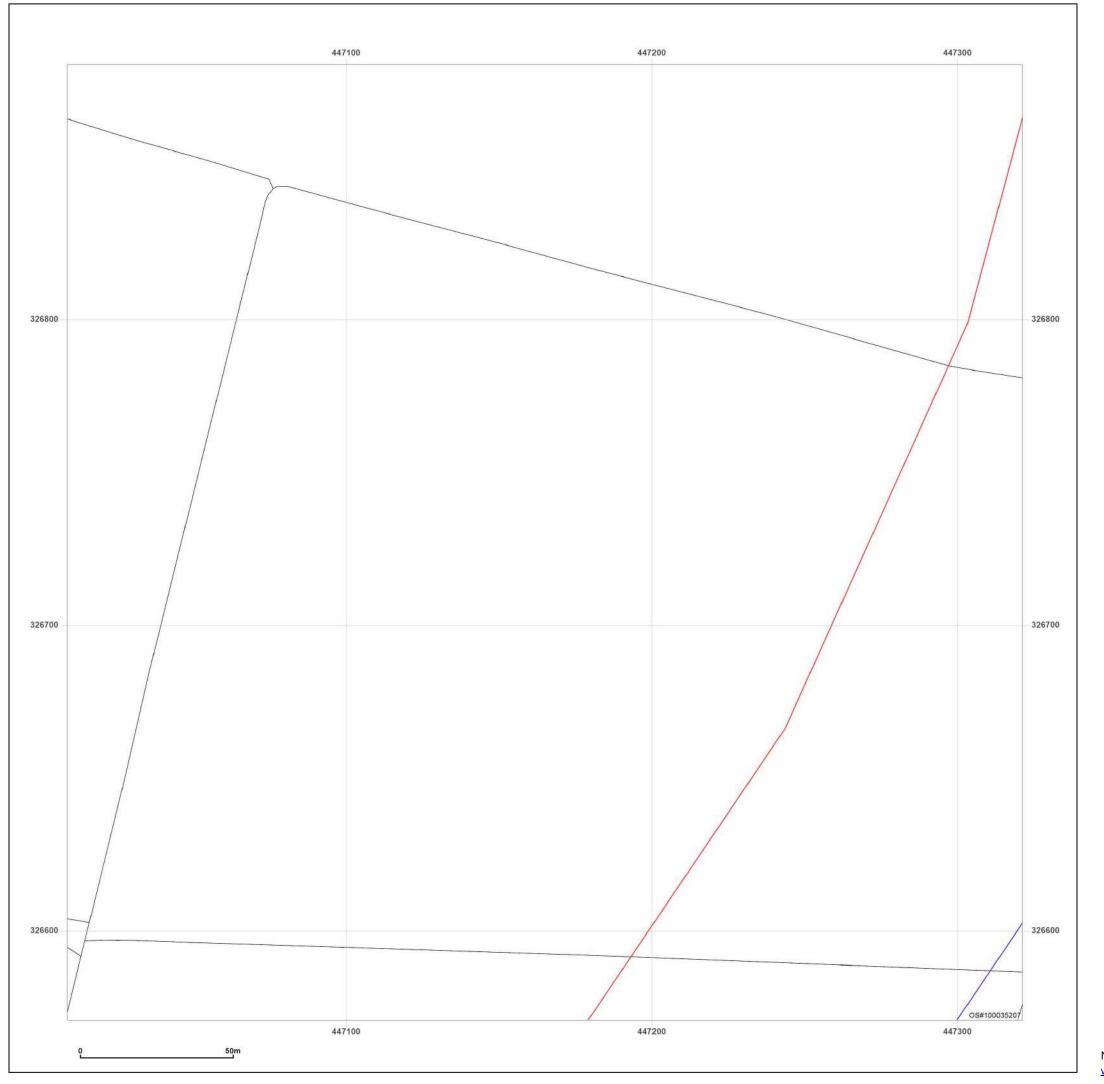




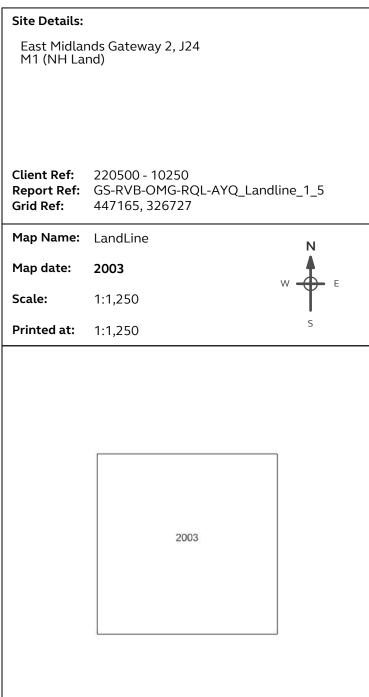
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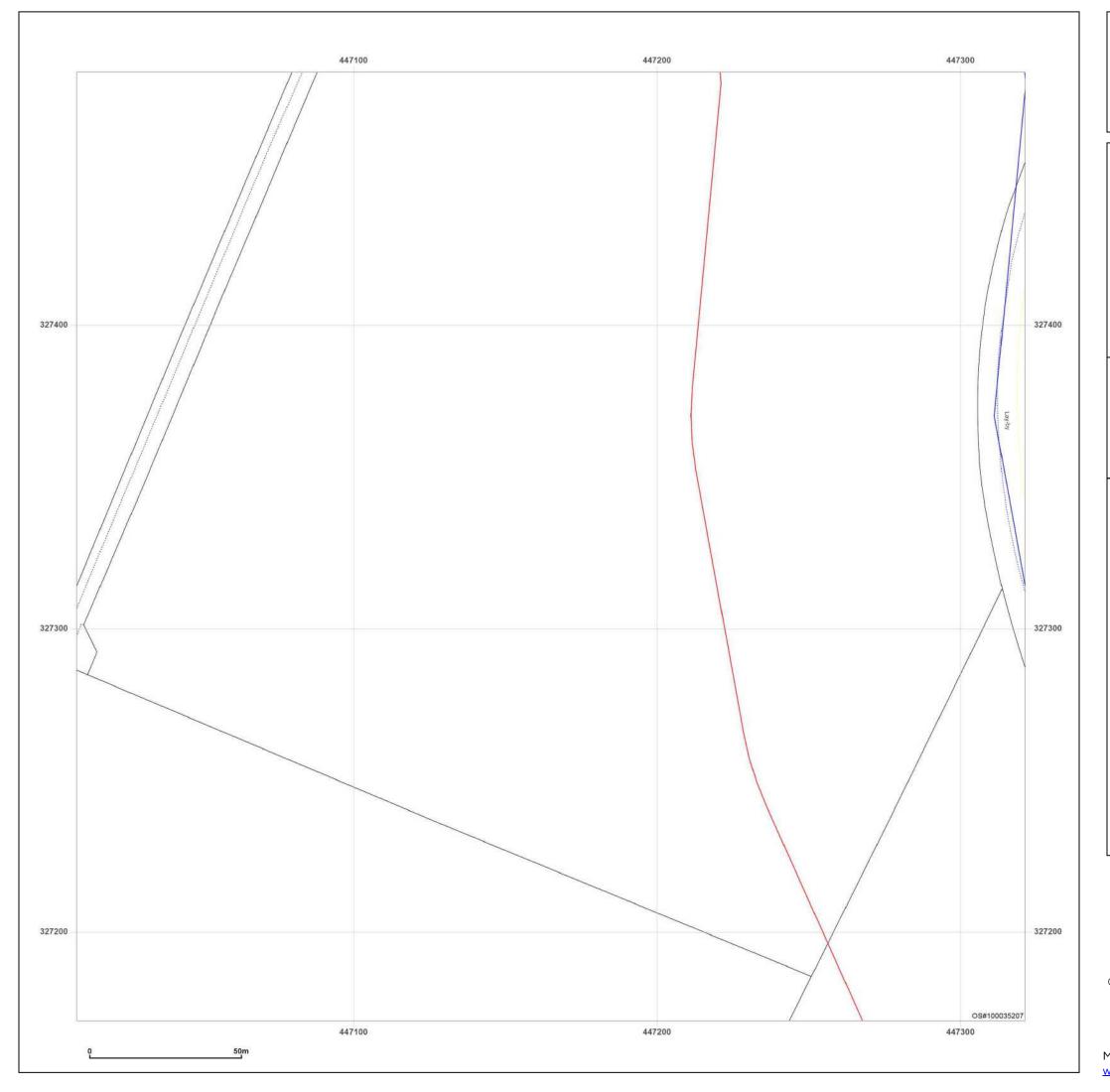




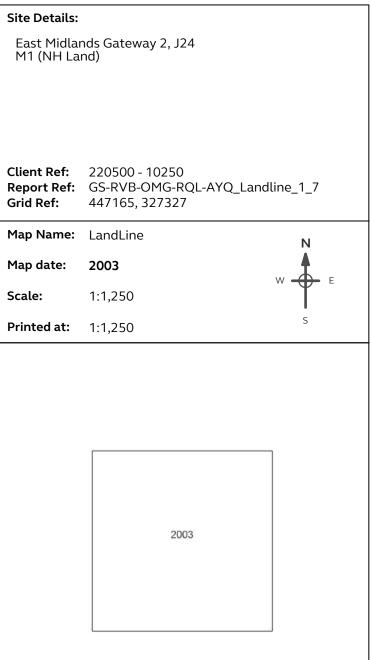
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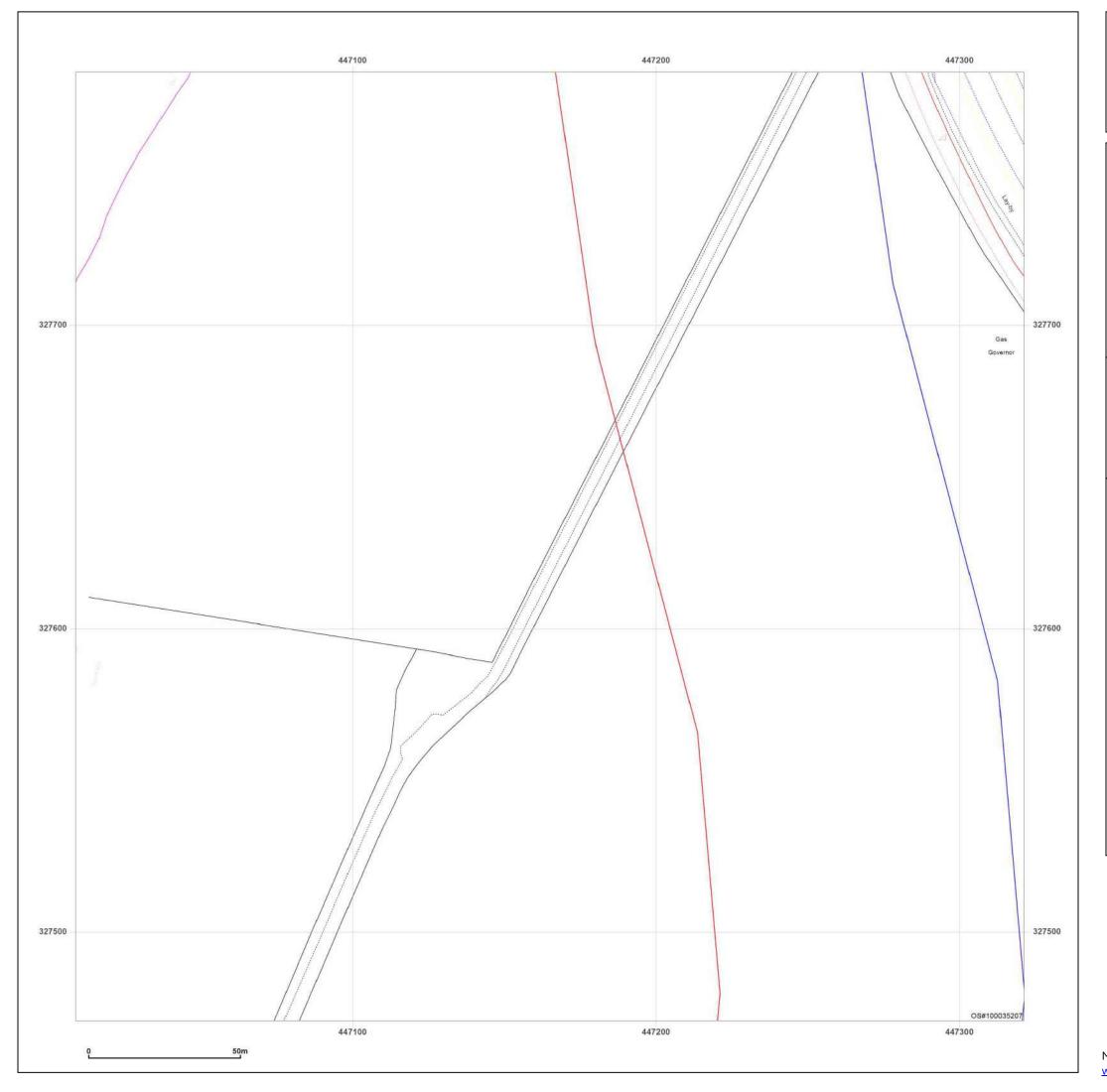




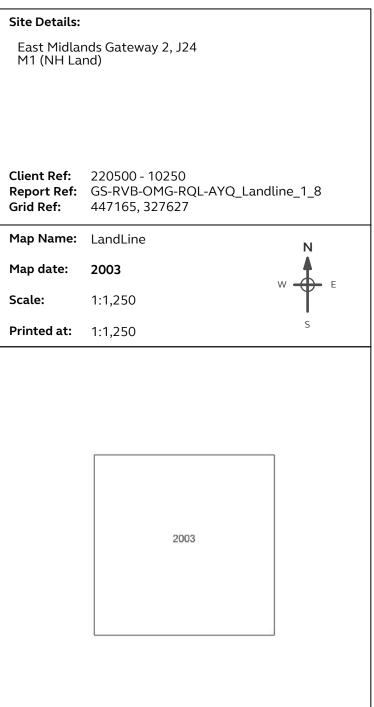
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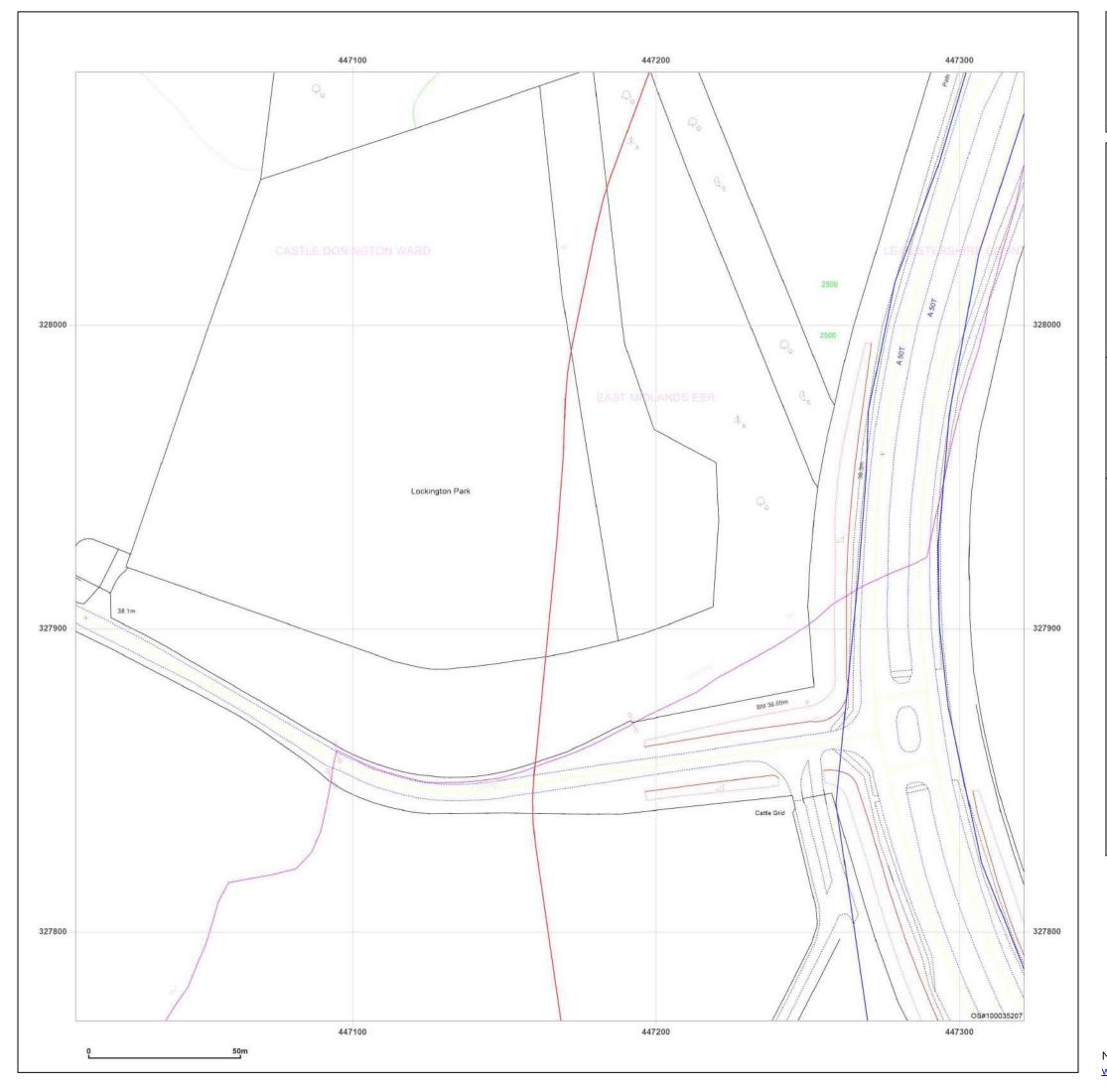




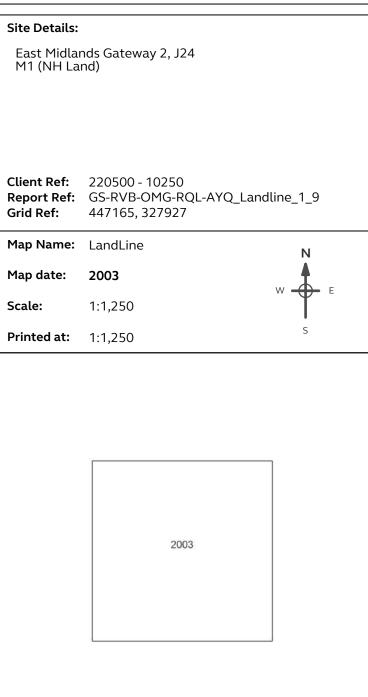
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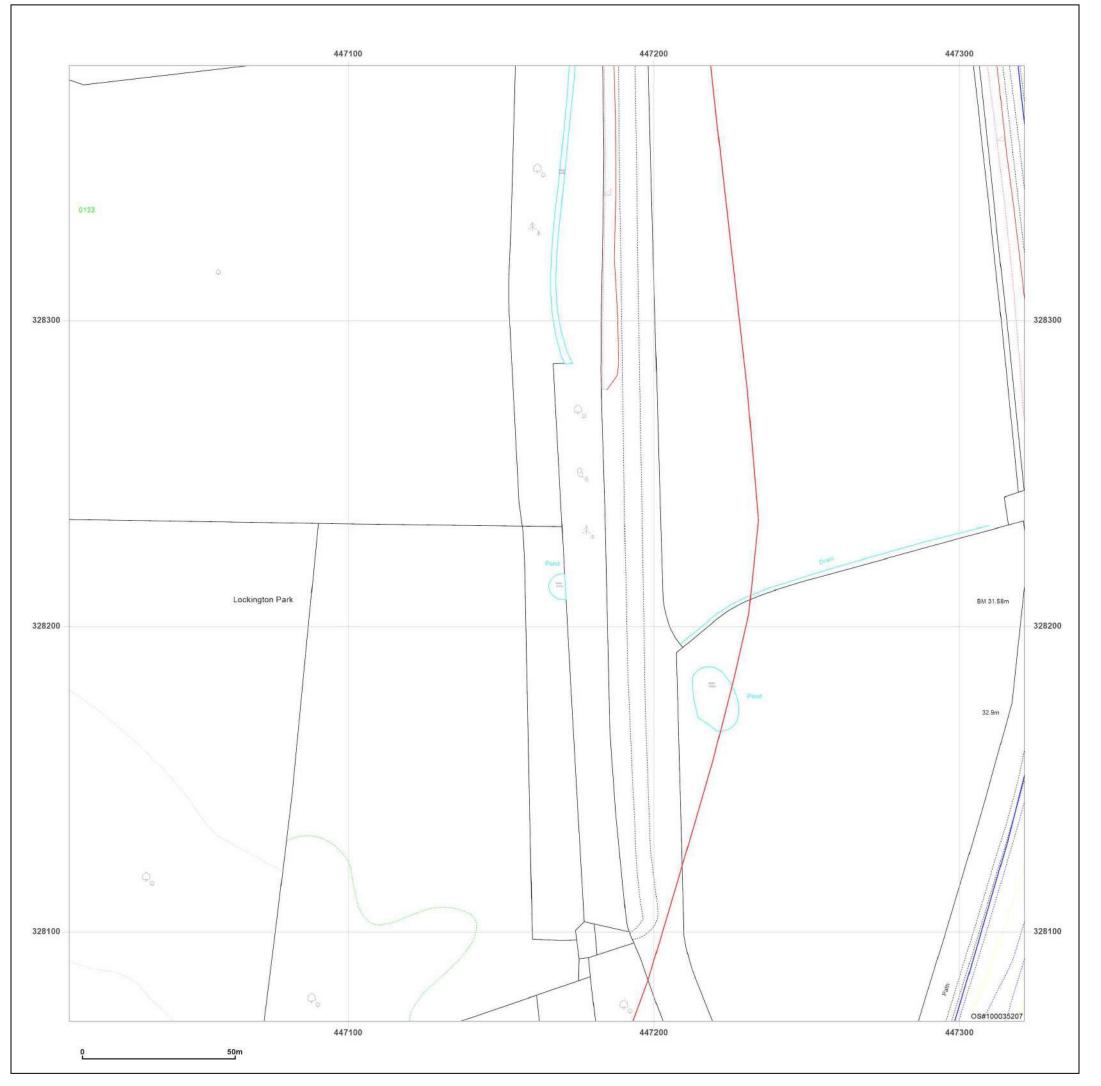




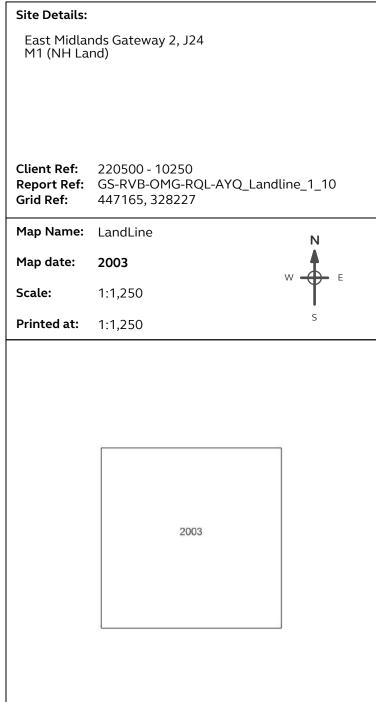
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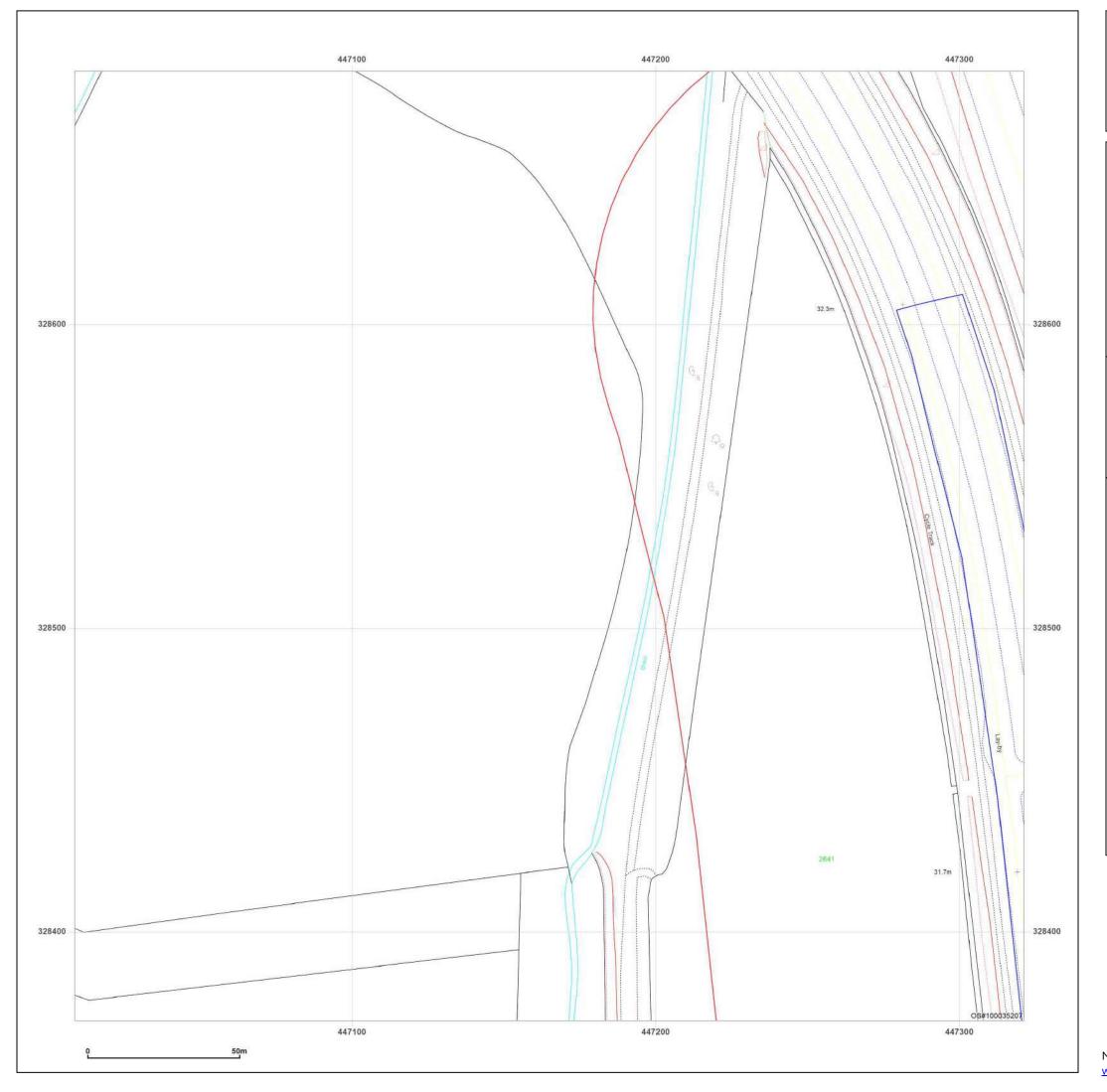




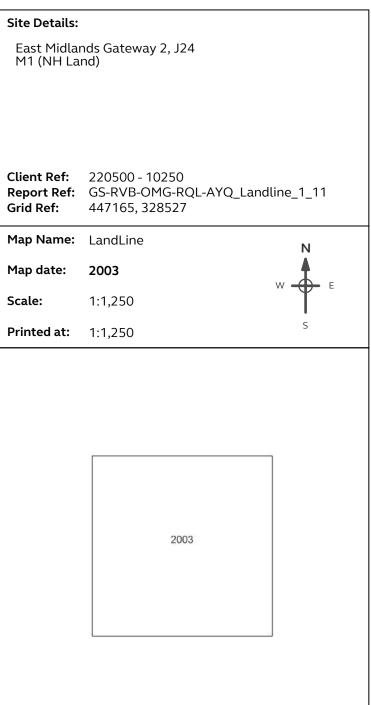
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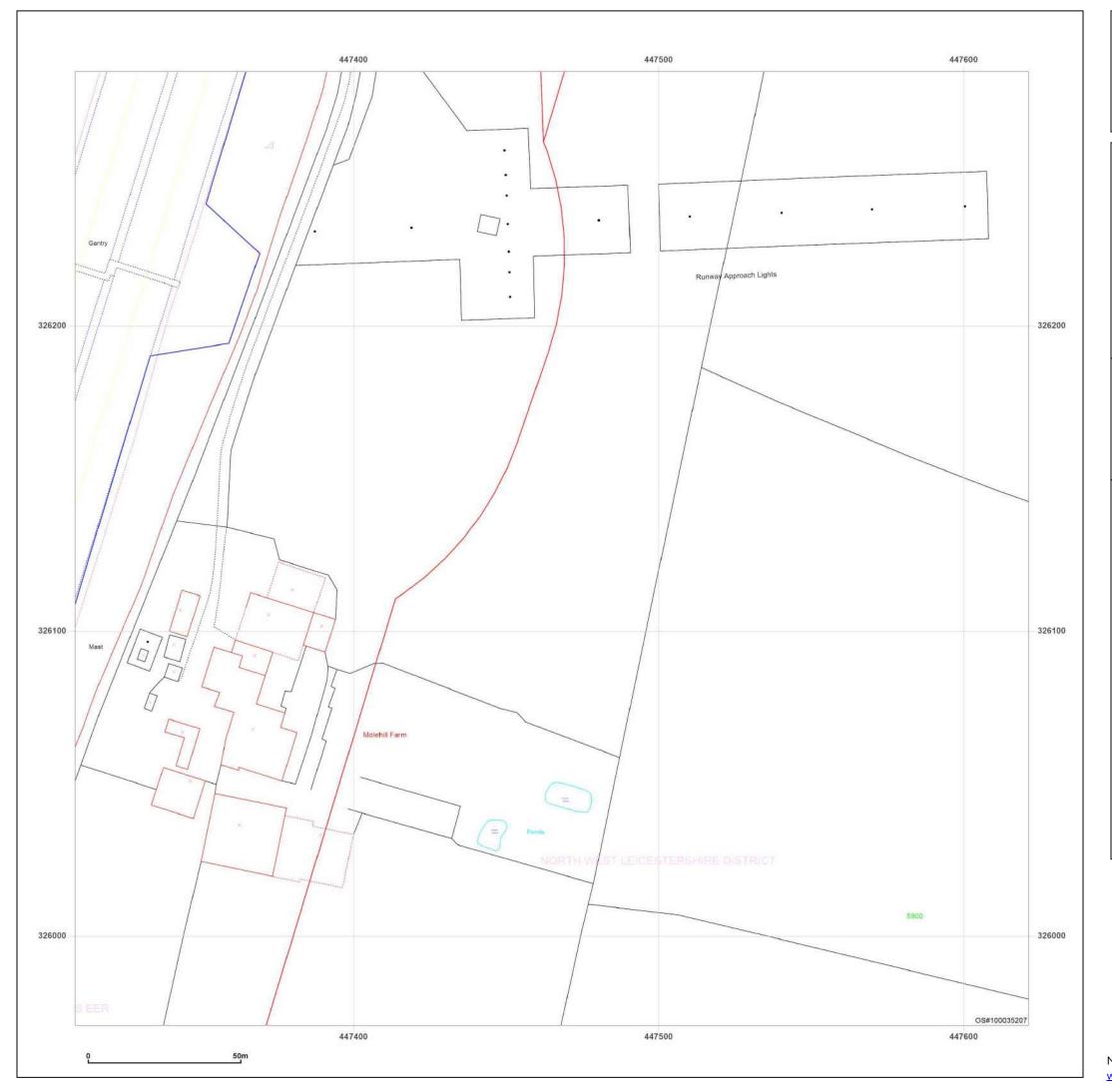




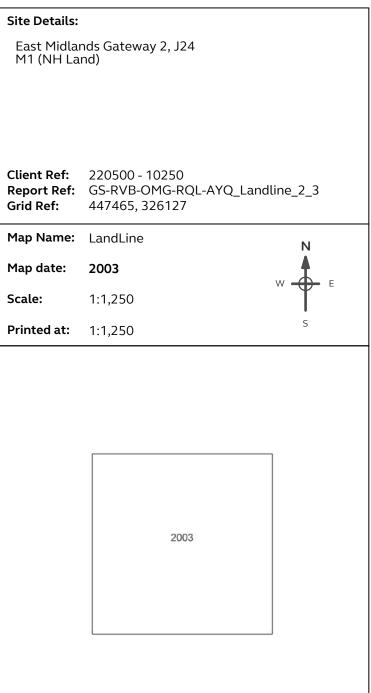
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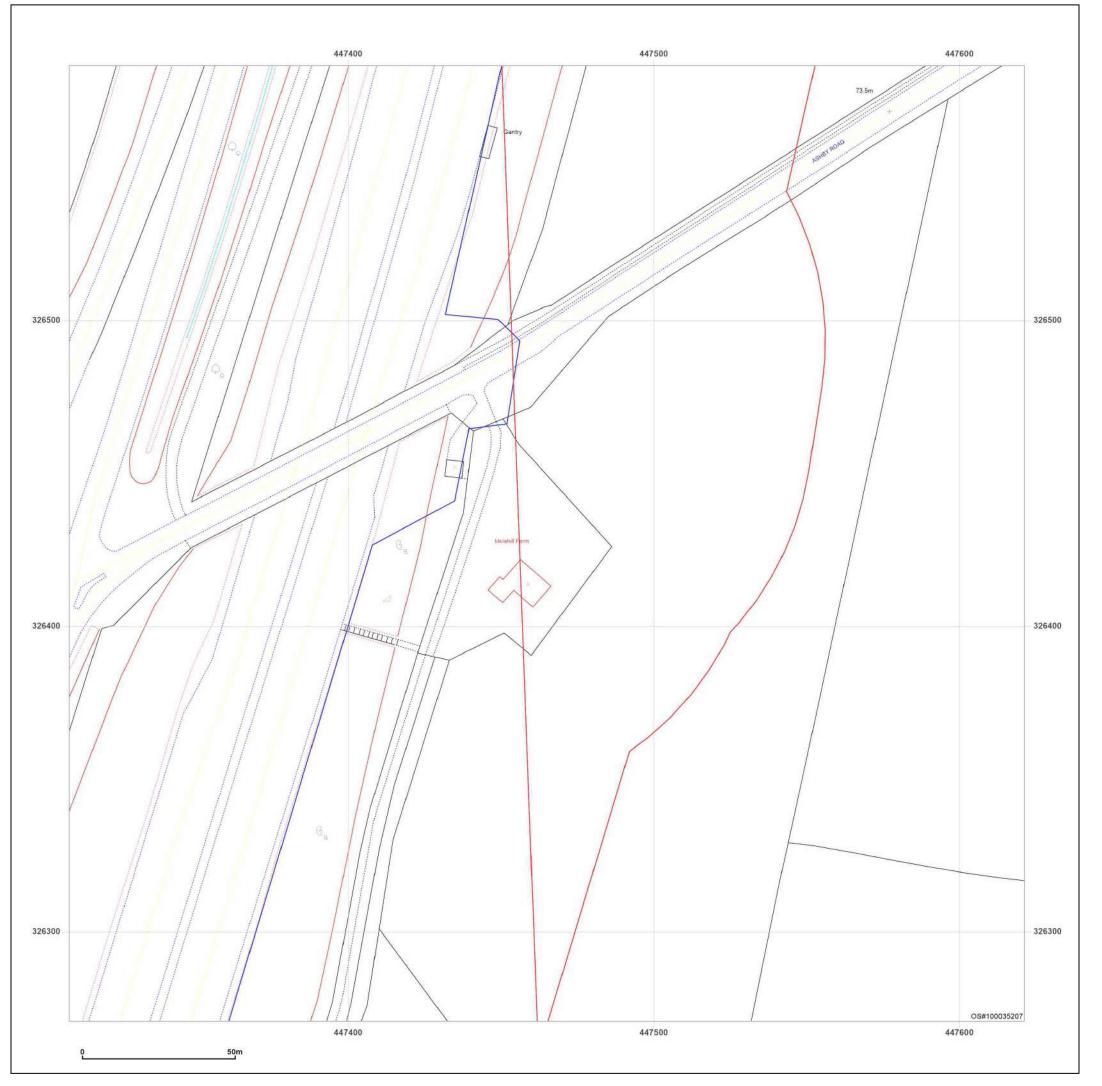




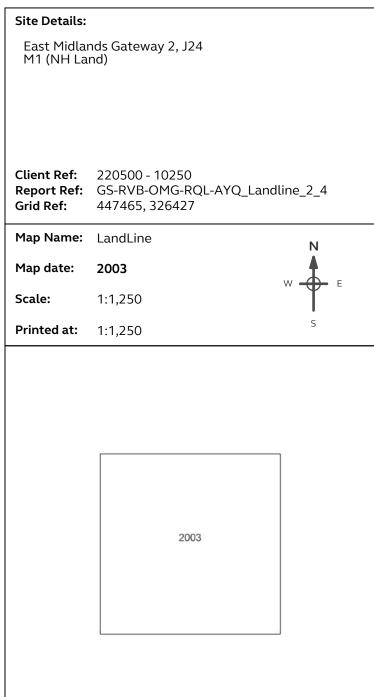
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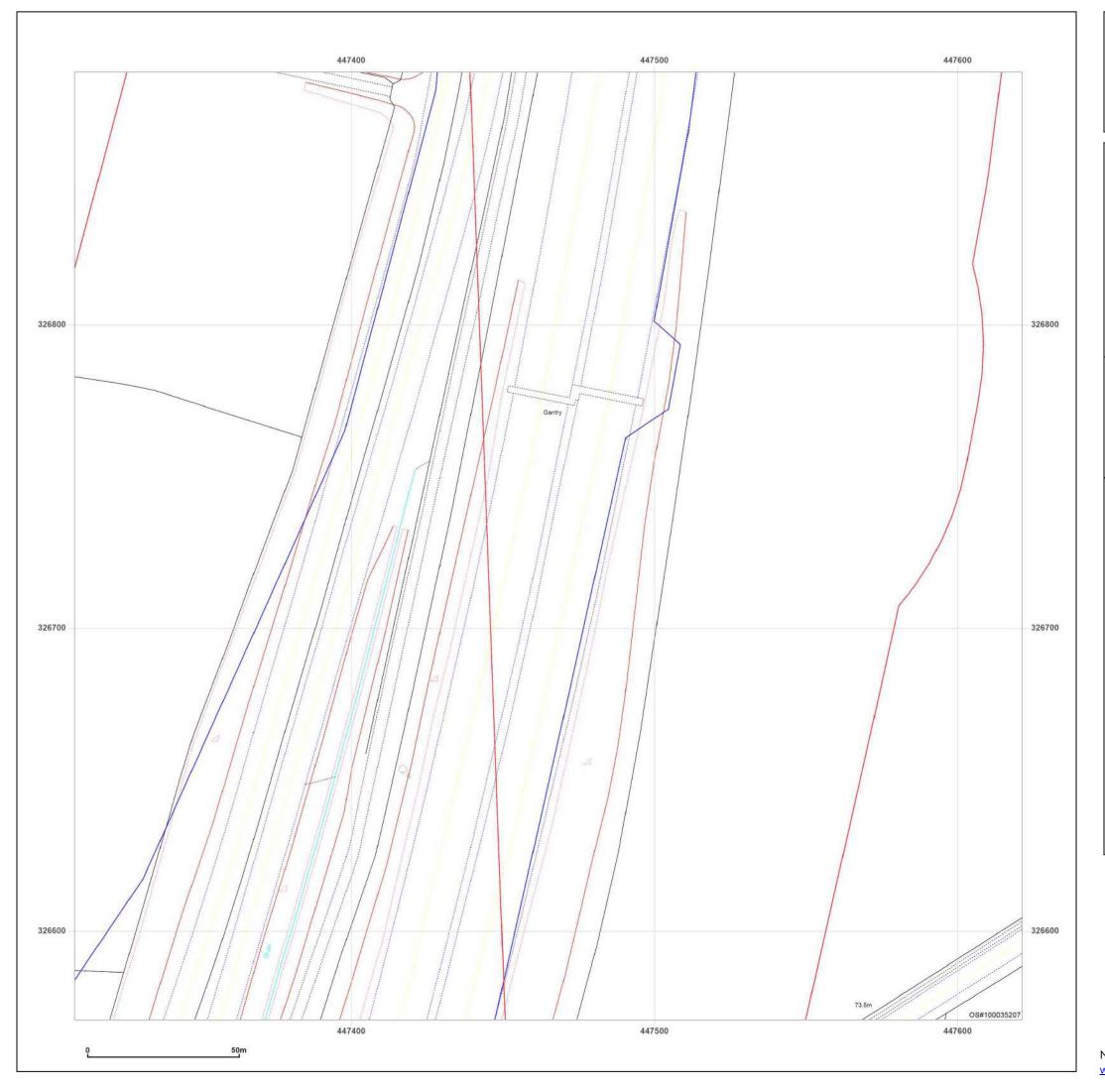




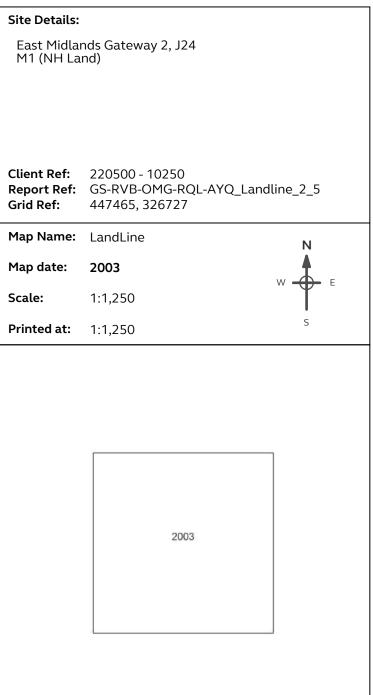
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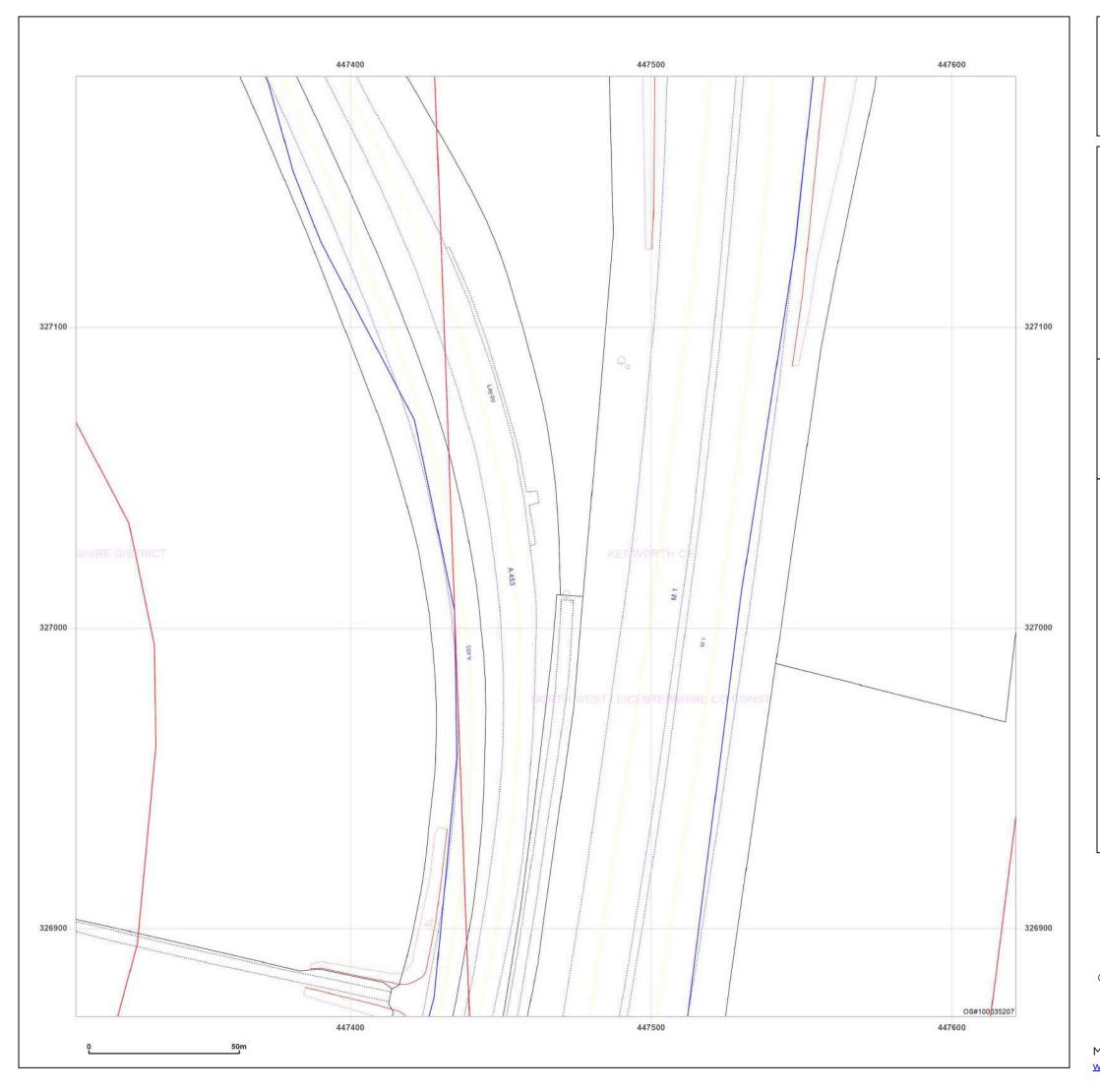




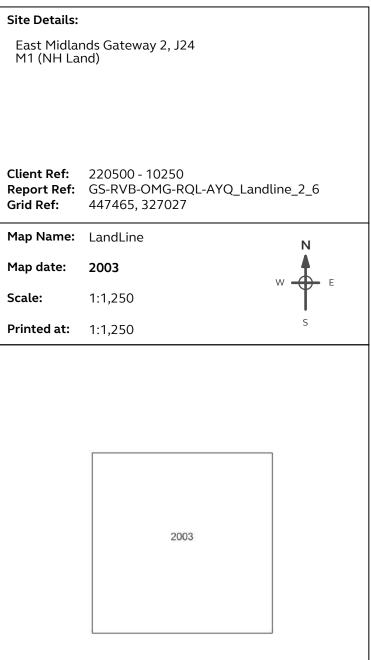
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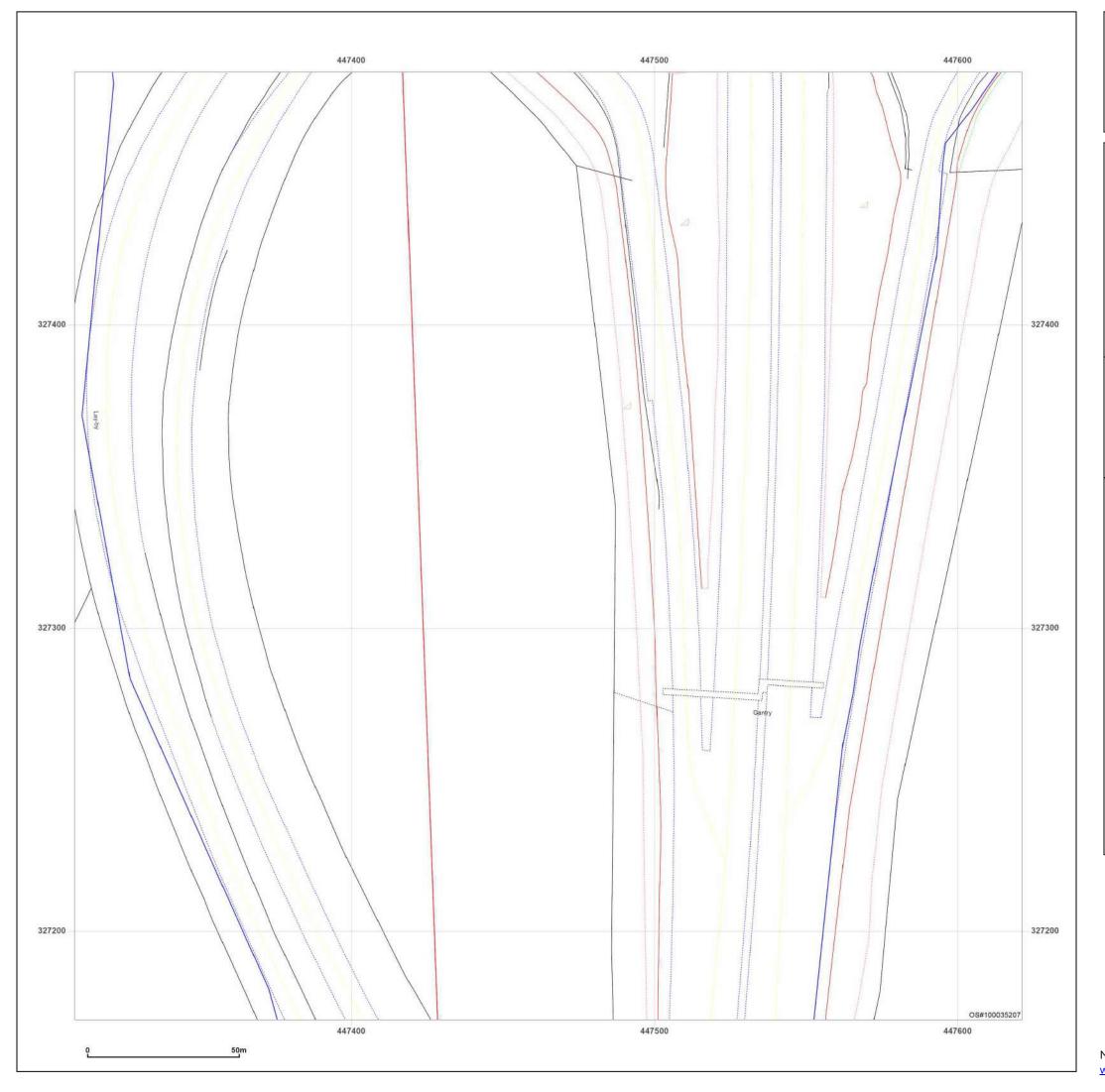




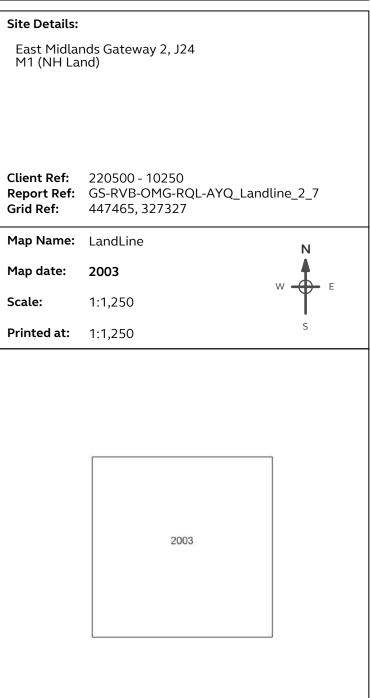
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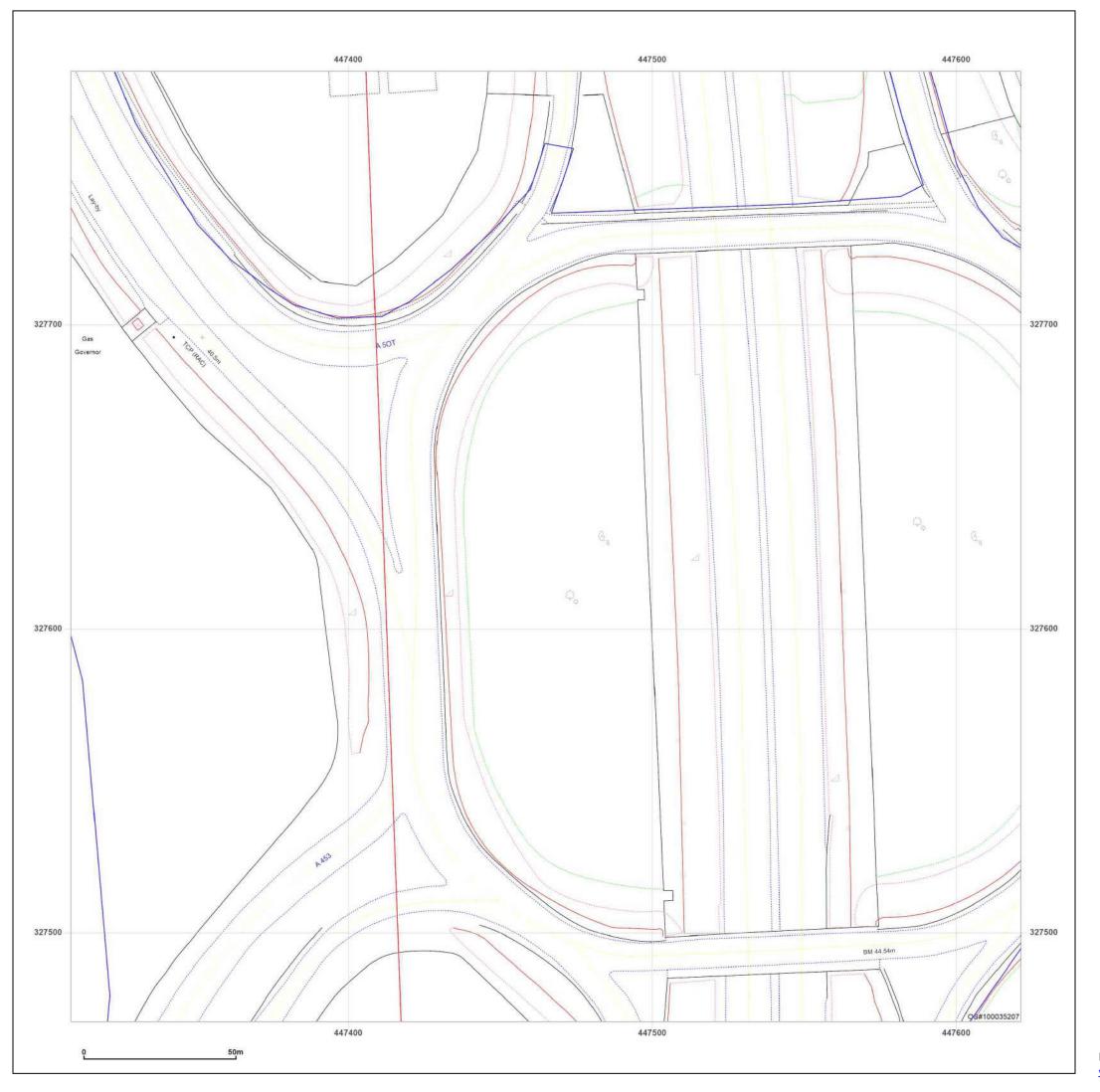




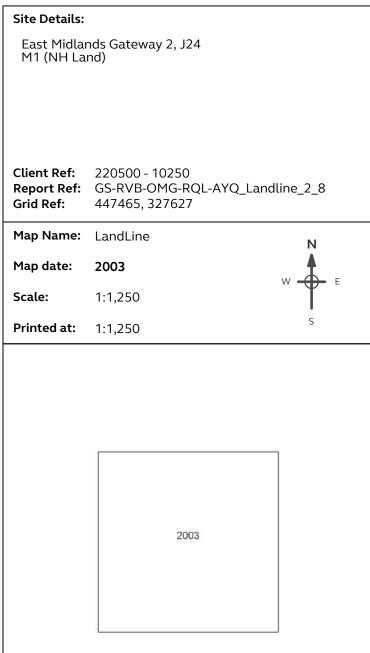
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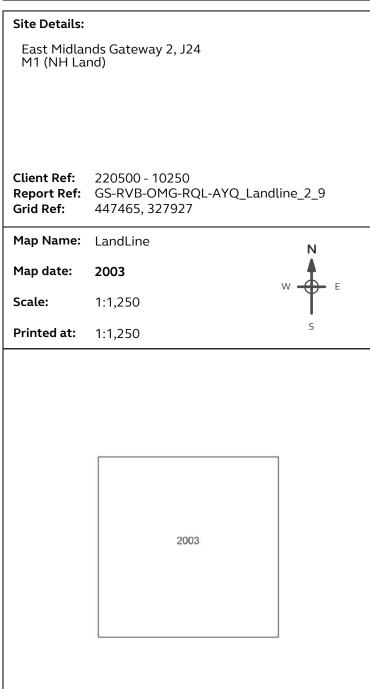
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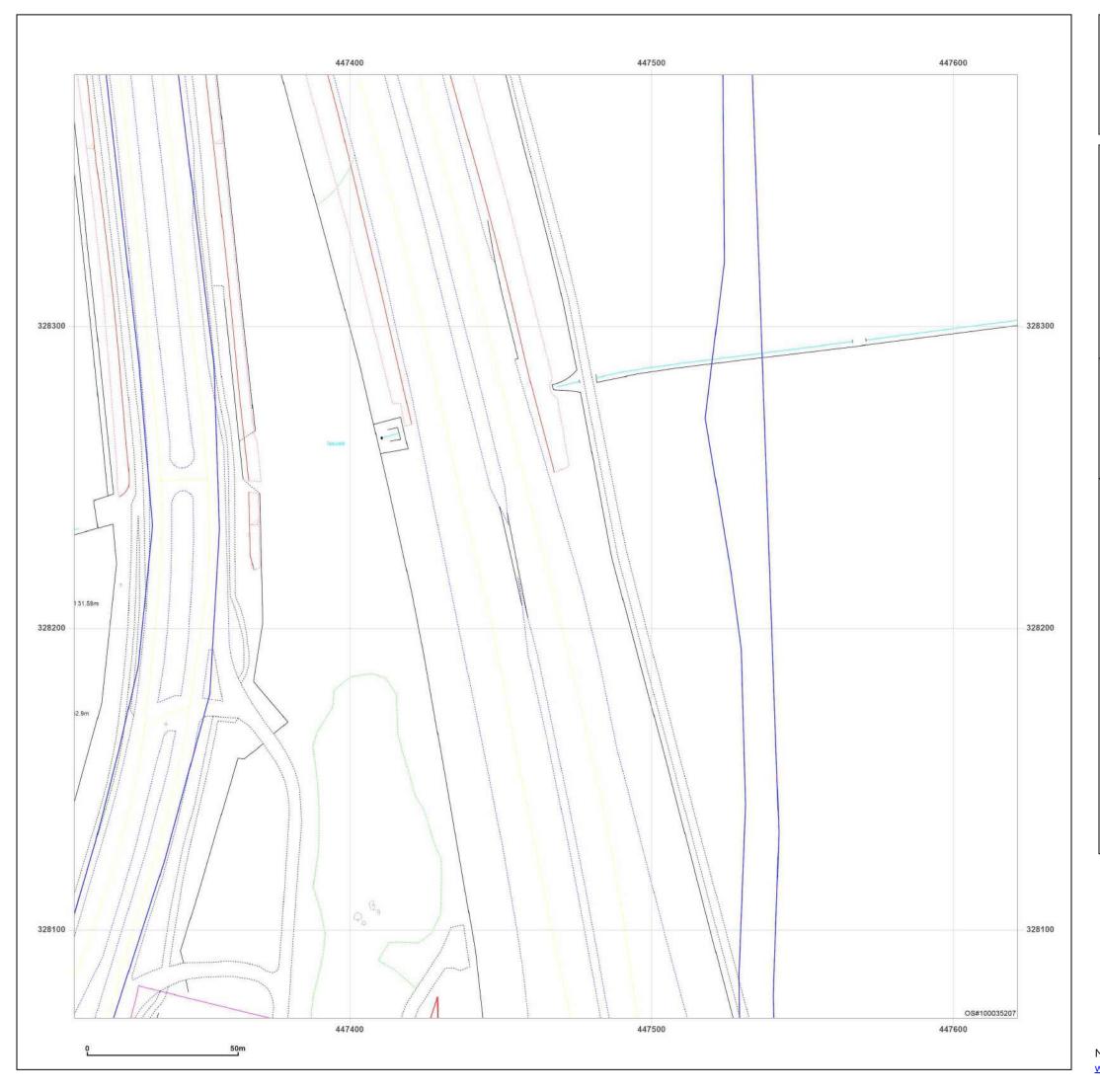




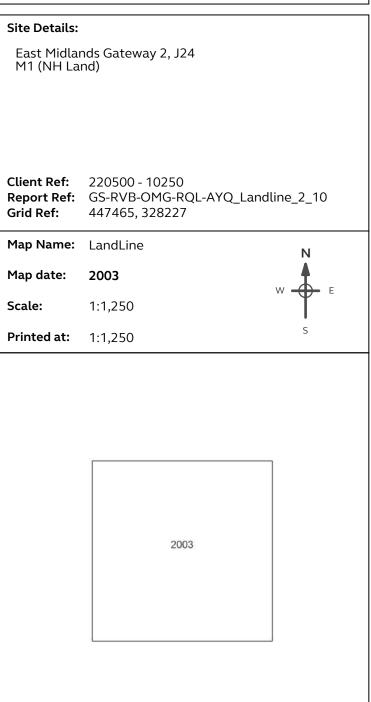
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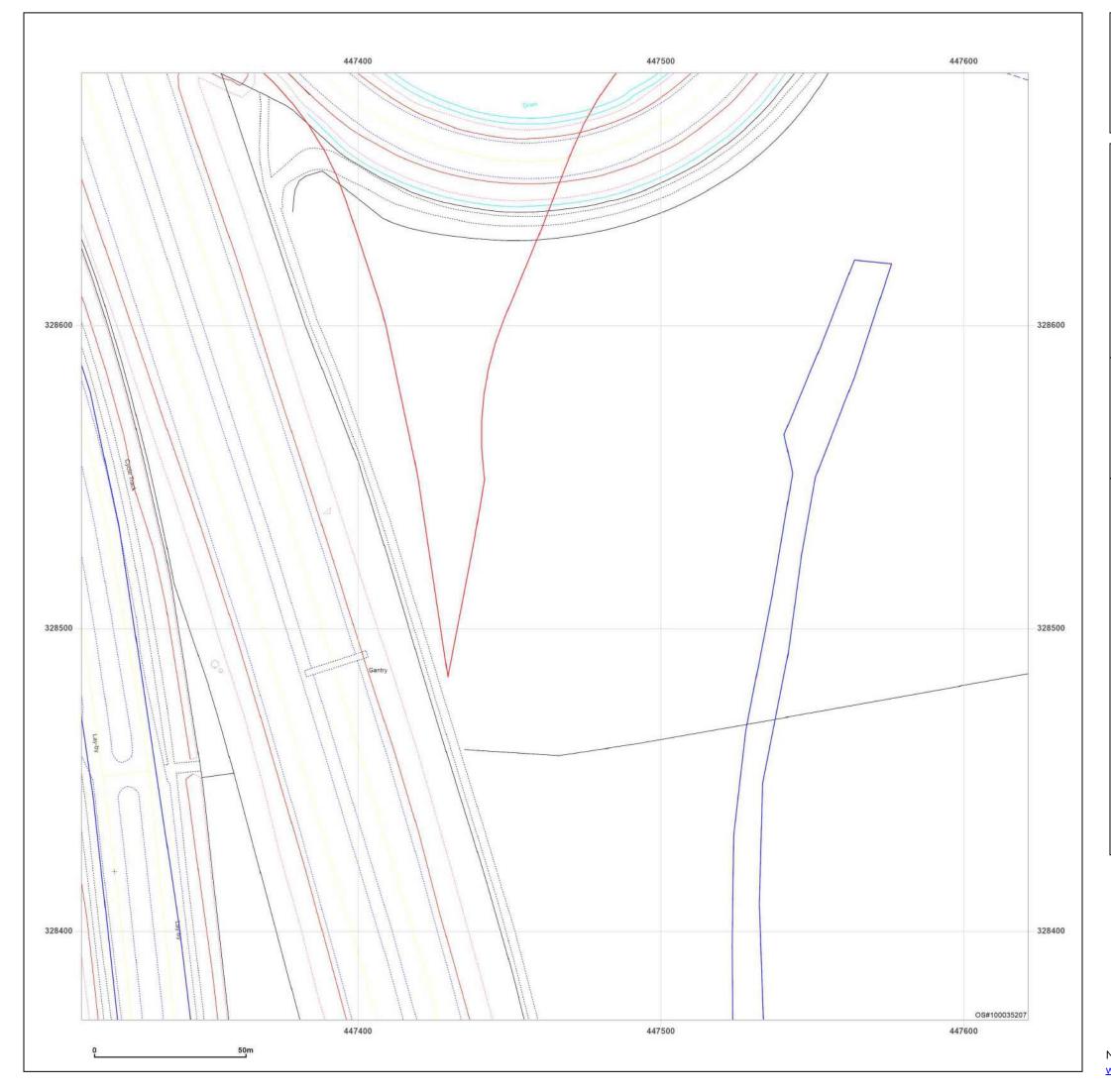




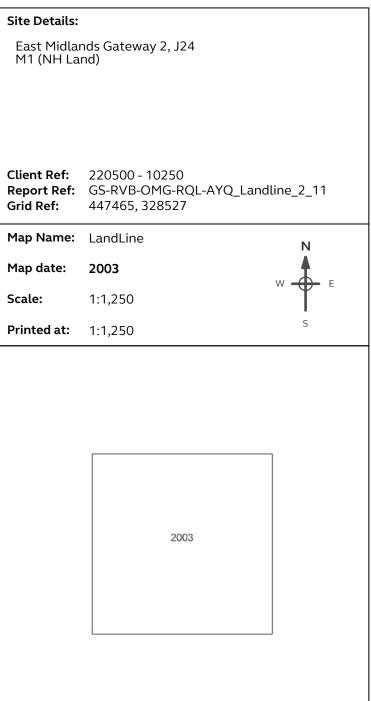
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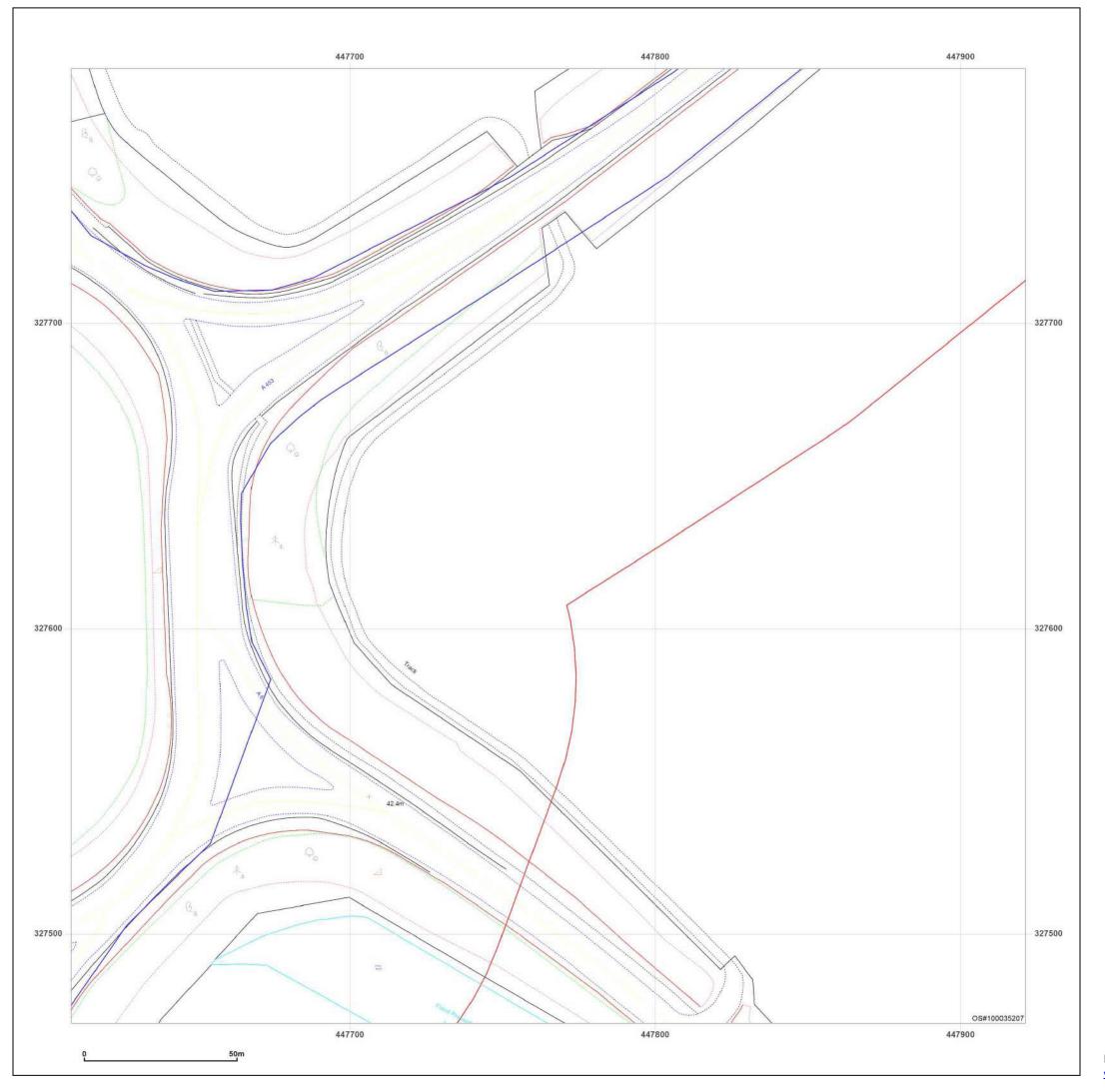




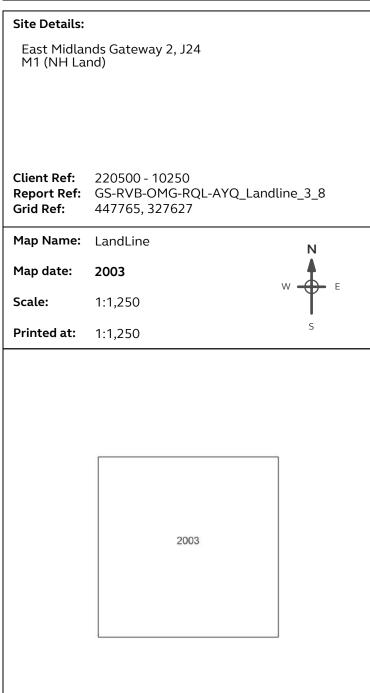
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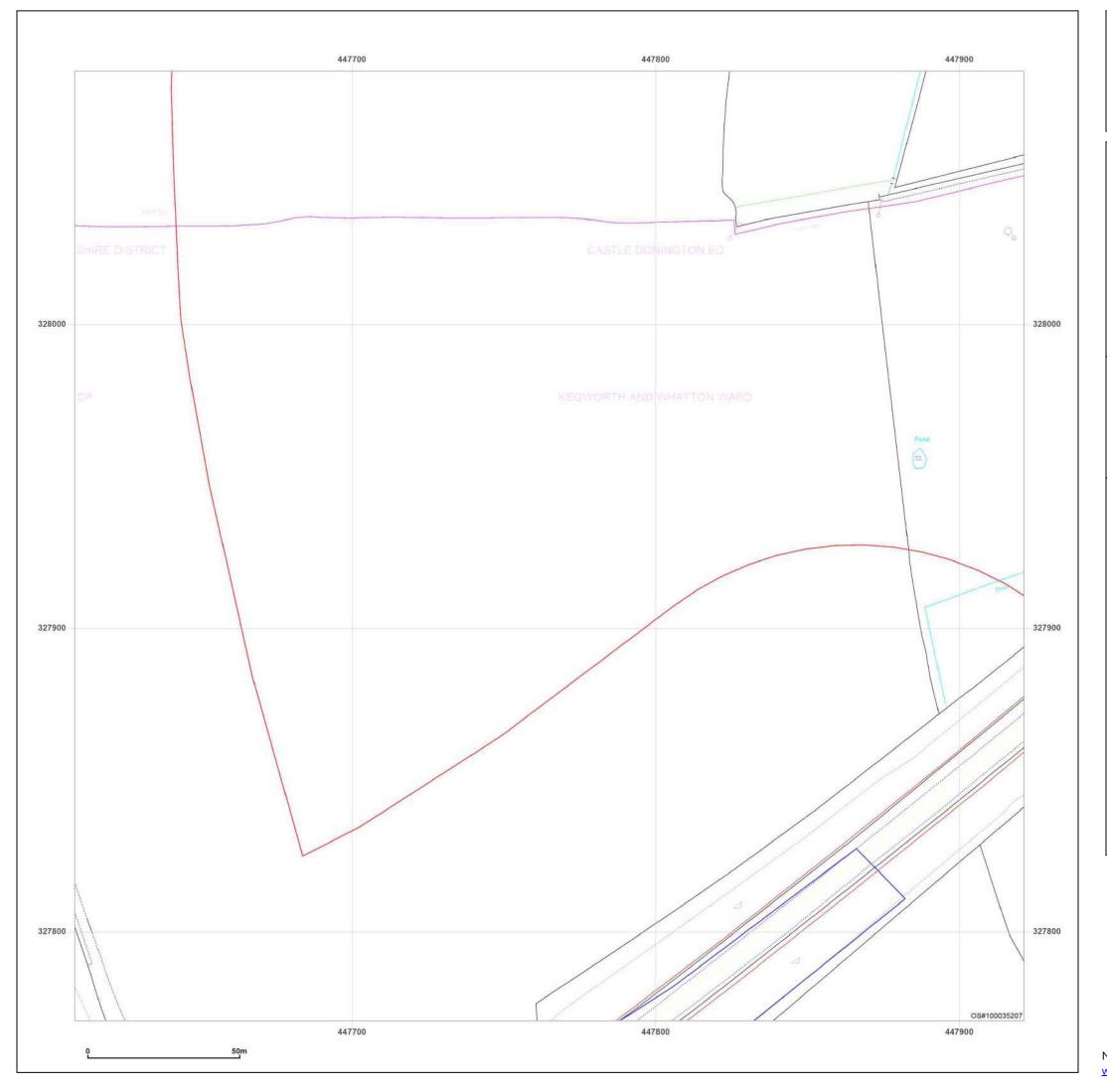




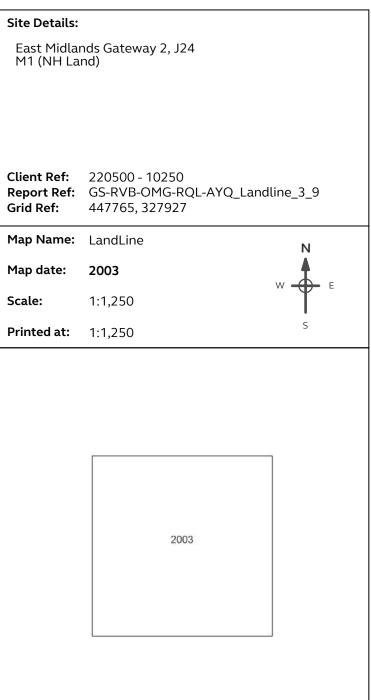
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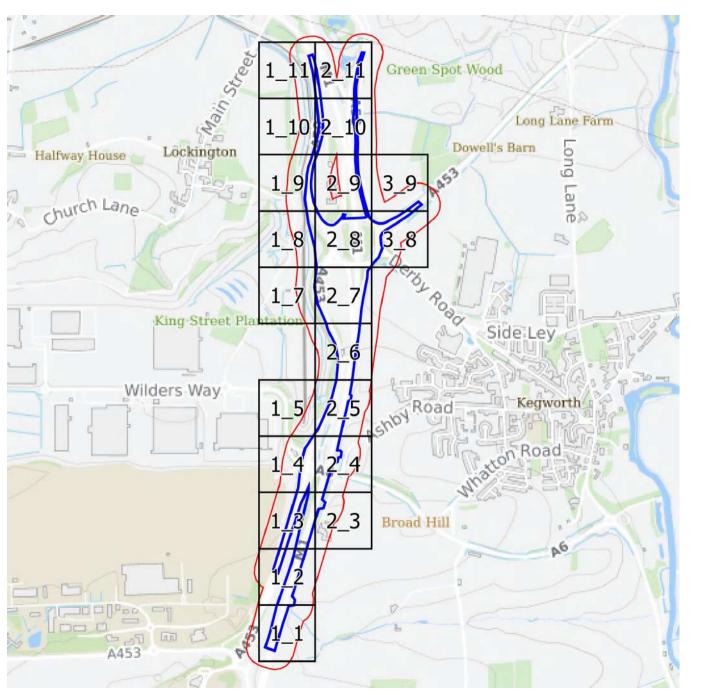




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Landline Scale Grid Index





Appendix 3: Historical Boreholes



Appendix 4: GDMS Reports

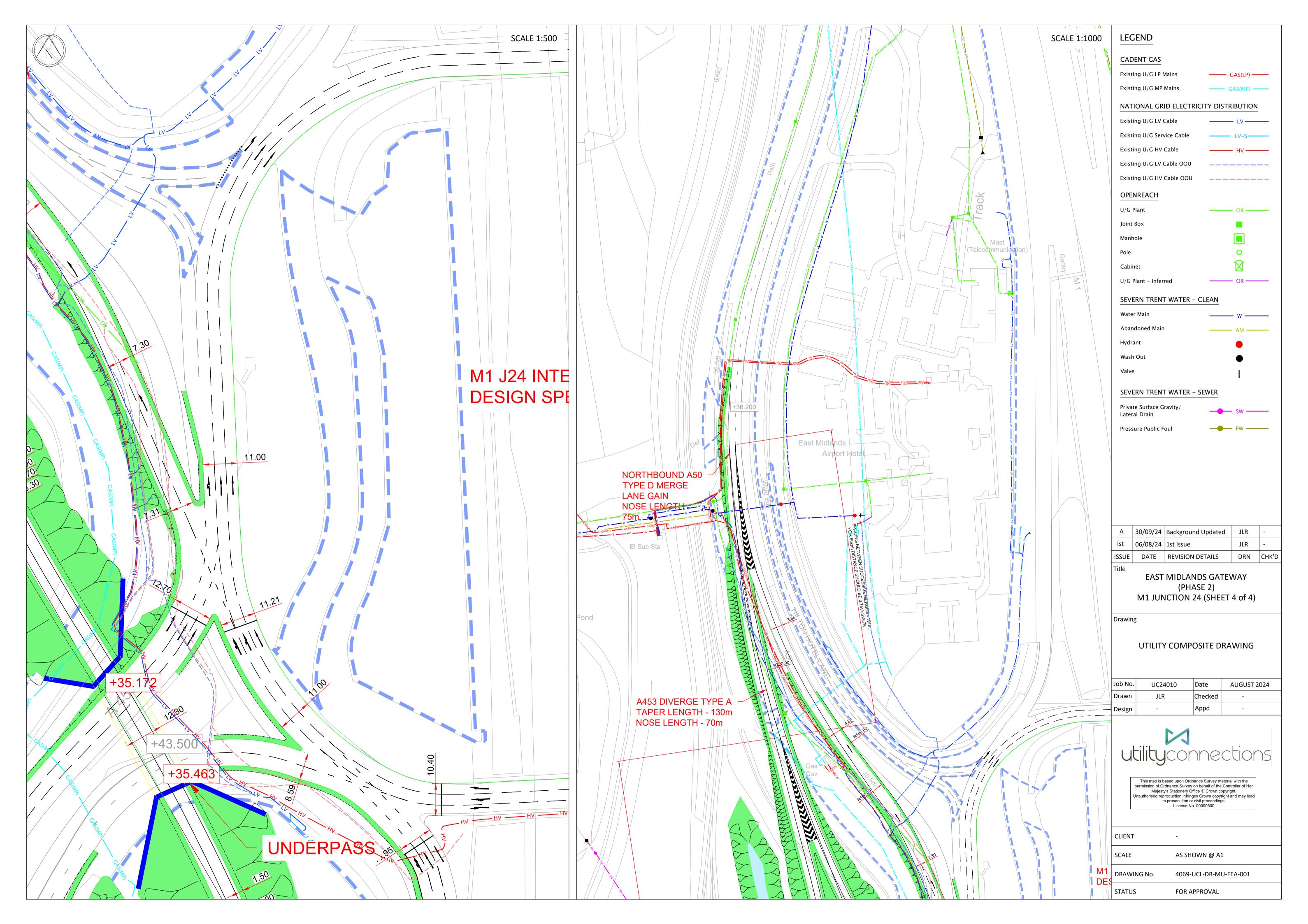


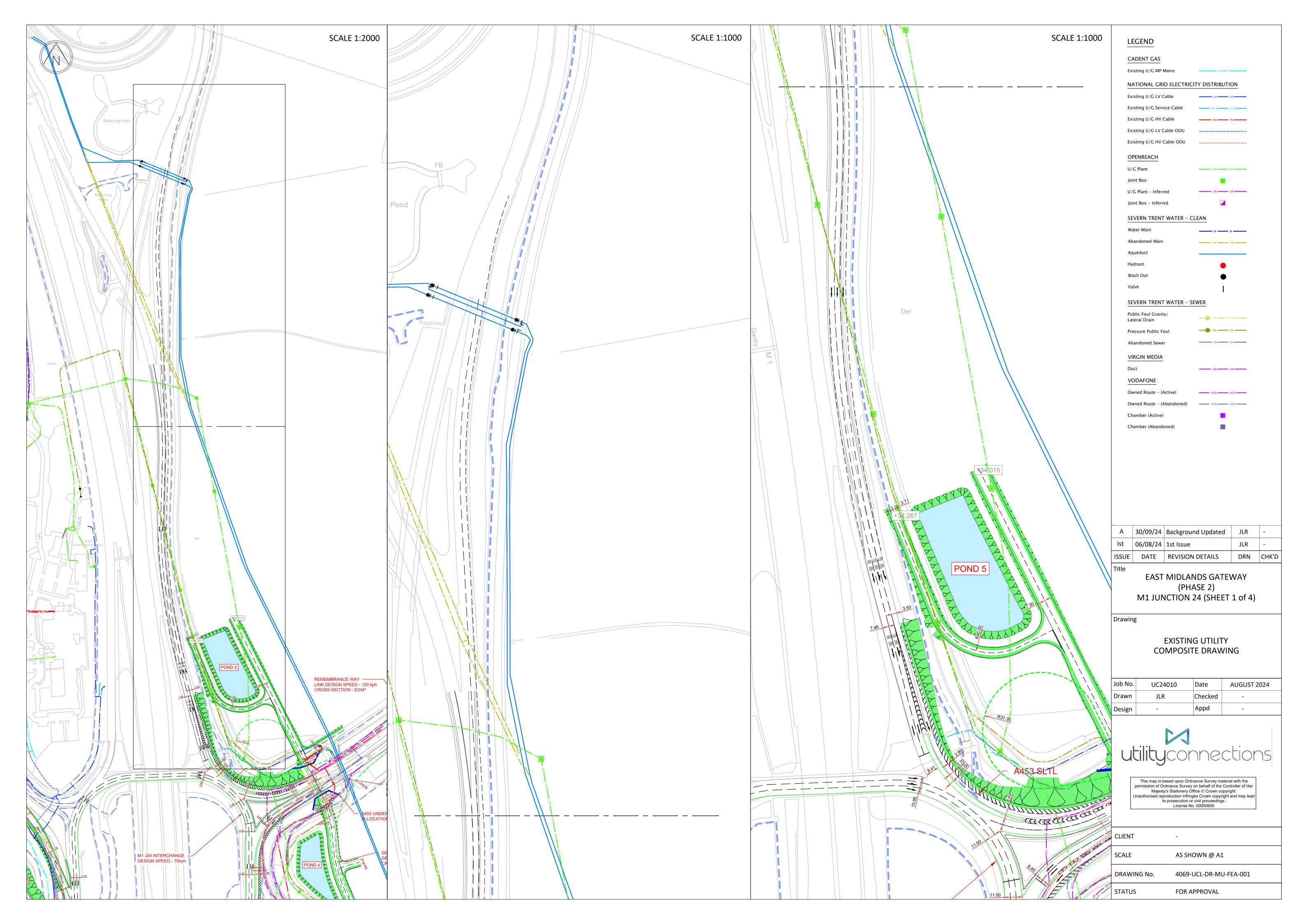
Appendix 5 : Geotechnical Risk Register

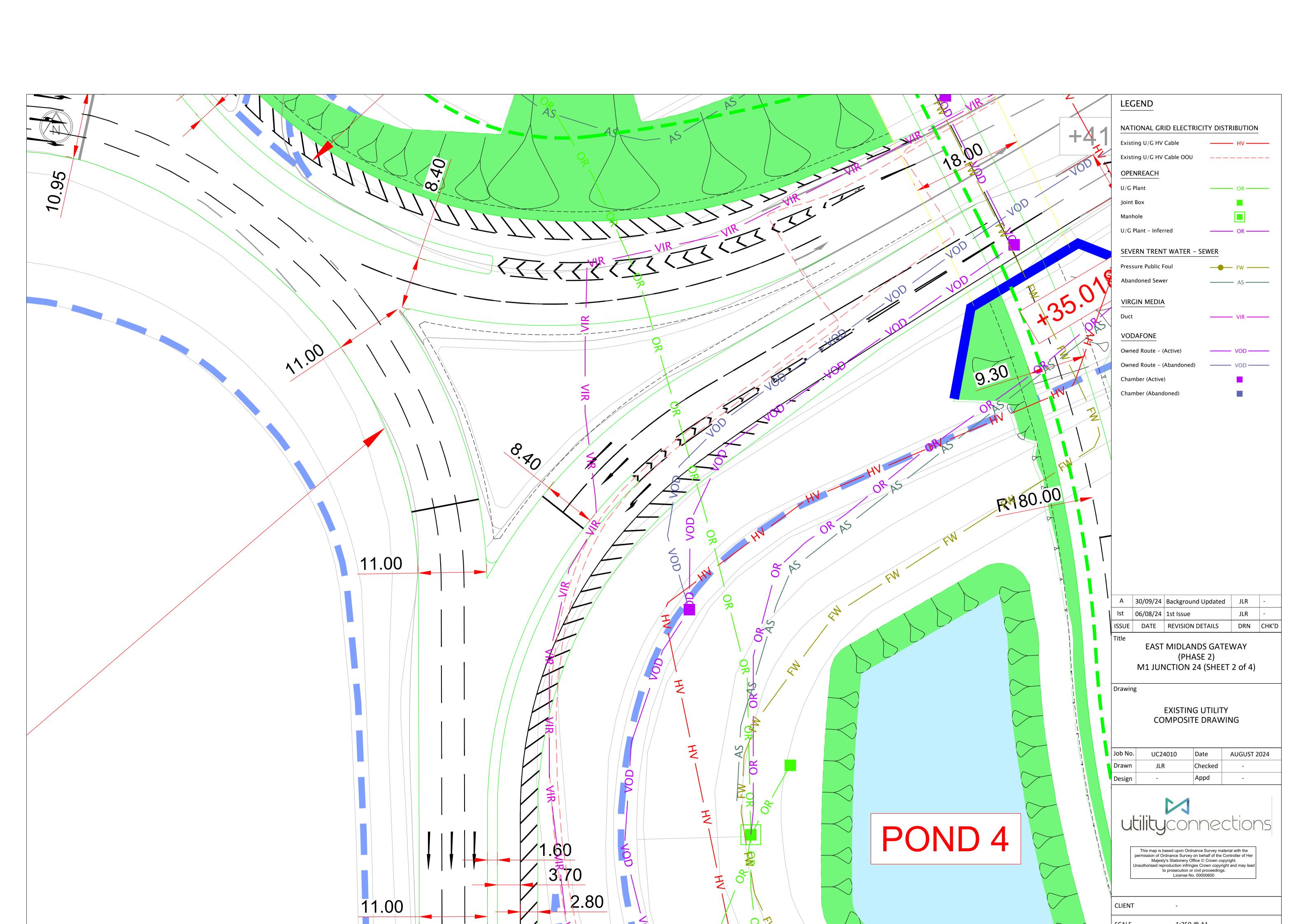


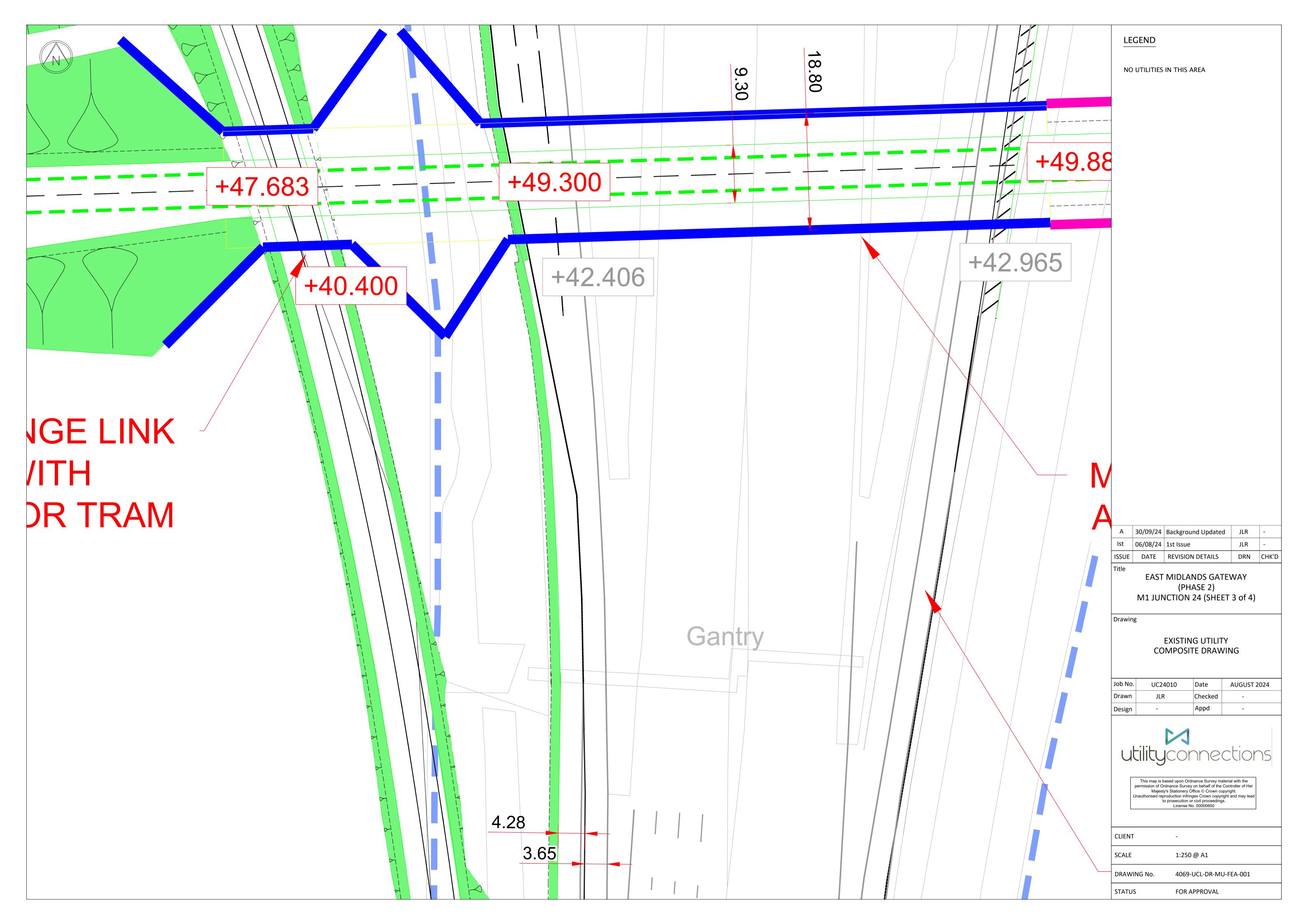
Appendix 6: Service Drawings













ANNEX A

(Ground Investigation Scoping Report)



