

Cottam Solar Project

Environmental Statement Appendix 11.2: Geo-Environmental Risk Assessment Cottam 2 Part 1 of 2

Prepared by: Delta Simons
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Preliminary Geo-Environmental Risk Assessment

Cottam Solar Project – Cottam 2

Presented to: **Cottam Solar Project Limited**

Issued: November 2021

Delta-Simons Project No: 21-1088.02



Delta-Simons Environmental Consultants Limited
Head Office: 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR
Tel: [REDACTED]



Report Details

Client	Cottam Solar Project Limited
Report Title	Preliminary Geo-Environmental Risk Assessment
Site Address	Land off East Lane, Corringham, Gainsborough, DN21 5QU
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Delta-Simons Contact	Paul Huteson ([REDACTED])

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				Jessica Rowe Senior Consultant	Paul Huteson Associate Director	Paul Bennett Unit Director

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As part of Lucion Services, our combined team of 500 in the UK has a range of specialist skill sets in over 50 environmental consultancy specialisms including asbestos, hazardous materials, ecology, air and water services, geo-environmental and sustainability amongst others.



Delta-Simons is proud to be a founder member of the Inogen Environmental Alliance, enabling us to efficiently deliver customer projects worldwide by calling upon over 5000 resources in our global network of consultants, each committed to providing superior EH&S and sustainability consulting expertise to our customers. Through Inogen we can offer our Clients more consultants, with more expertise in more countries than traditional multinational consultancy.

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1.0 Introduction

1.1 Appointment

Delta-Simons Environmental Consultants Limited (“Delta-Simons”) was instructed by Cottam Solar Project Limited (the “Client”) to prepare a Preliminary (Geo-Environmental) Risk Assessment for a parcel of land located off East Lane, Corringham, Gainsborough, DN21 5QU, hereafter referred to as ‘Cottam 2’ (the “Site”). A Site Location Map is included as Figure 1.

This Report was undertaken in accordance with Delta-Simon’s fee proposal dated 20th October 2021. The standard limitations associated with this Assessment are presented in Appendix A.

1.2 Context & Purpose

It is understood that the Site is proposed to be developed as a Solar Farm (Cottam Solar Project), however, no proposed development plans have been provided. It is anticipated that the majority of the Site will comprise ground mounted solar arrays with associated maintenance access routes and limited infrastructure such as sub-stations and battery storage.

The aim of this Report is to support the submission of a planning application for the proposed development.

To that end this study assesses the likely environmental issues associated with soil and groundwater conditions that may affect the proposed development of the Site. This Report is designed in general accordance with guidance on Land Contamination: Risk Management pages of the GOV.UK web pages, the relevant requirements of the National Planning Policy Framework (NPPF) (as revised 2021) (paragraphs 174 & 183-184)¹ and the Planning Practice Guidance (Land Affected by Contamination)².

1.3 Scope of Works

- ▲ Review of the environmental setting of the Site, including the current use / status of the Site and surrounding area, and review of the geology, hydrogeology and hydrology;
- ▲ Review of the historical activities of the Site and surrounding area;
- ▲ Review of regulatory information relating to the Site;
- ▲ Review of the online planning records for the Site;
- ▲ Consult and review information from the Local Authority in relation to Part 2A of the 1990 Environmental Protection Act;
- ▲ Review online records of potential unexploded ordnance risks;
- ▲ Develop an outline Conceptual Site Model, and undertake a Preliminary Risk Assessment with respect to potential contamination focussed on the proposed land use; and
- ▲ Provide commentary on potential land contamination and geotechnical constraints in the context of the proposed development.

1.4 Existing Information

The following information has been used within the Assessment:

- ▲ Current and Historical Ordnance Survey (OS) maps;
- ▲ British Geological Survey (BGS) data;
- ▲ Environment Agency (EA) online data;
- ▲ Coal Authority (CA) online data;
- ▲ A Landmark Envirocheck Report for the Site (Ref. 287331185_1_1), dated 4th November 2021;

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004408/NPPF_JULY_2021.pdf

² <https://www.gov.uk/guidance/land-affected-by-contamination>

- ▲ Historical Maps included as part of the Envirocheck Report; and
- ▲ Information provided by West Lindsey District Council.

1.5 Limitations

The standard limitations associated with this Assessment are presented in Appendix A. In addition, there are the following specific limitations that apply to this Assessment:

- ▲ No proposed development scheme has been provided, however, it is anticipated that the majority of the Site will comprise ground mounted solar panels with associated maintenance access routes and limited infrastructure such as sub-stations and battery storage; and
- ▲ A Site walkover has been undertaken as part of this assessment, however, given the scale of the Site it is not feasible to inspect all of the Site, although key areas have been inspected.

2.0 Site Context & Data Review

2.1 Site Information

Co-ordinates	Centred at National Grid Reference 488430, 392110.	Elevation	16 - 18 m AOD
		Area	131 Ha
Site Address and Location	The Site is located off East Lane, Corringham, approximately 8 km east of Gainsborough town centre. A Site Location Map is included as Figure 1.		
Site Description	<p>The Site has been assessed through readily available online aerial and street view imagery and a Site Layout Plan is included as Figure 2. In addition, a Delta-Simons representative undertook a Site walkover of readily accessible areas on 24th November 2021. Pertinent information observed or reported on-Site is described below and shown on Figure 3, with supporting photographs.</p> <p>The Site consists a series of agricultural fields separated by hedgerows and mature trees. The fields are accessed via farm tracks along the southern and northern boundaries.</p> <p>A number of fields were cropped and a field in the southern area was noted be in use for cattle farming.</p> <p>Land drains are present in the central area of the Site and along the western boundary. In addition, Corringham Beck and Yewthorpe Beck are present along the northern and eastern boundaries, respectively. During the walkover Yewthorpe Beck along in the north eastern corner had recently been cleared and the water level was noted to be low.</p> <p>A farmyard and residential house are noted in the central area with associated vehicular access route, however, are outside the Site boundary.</p> <p>From readily available online data, the Site is indicated to range from approximately 16 m AOD in the northern area to 18 m AOD in the south and is in accordance with the local topography.</p>		
Description of Adjacent and Surrounding Land Uses	The Site is located within a predominantly rural area with farmland to the north, south and east. The village of Corringham with associated residential dwellings is present to the west.		

2.2 Physical Setting

Published Geology	From the BGS Geology of Britain Online Viewer, the Site is indicated to be underlain by superficial Till (Diamicton) across the majority of the Site and Alluvium (Clay, Silt, Sand and Gravel) along the eastern boundary and north eastern area of the Site. The bedrock is mapped as the Scunthorpe Mudstone Formation (Mudstone and Limestone).
Site-Specific Geology	There are no BGS recorded boreholes within 250 m of the Site.
Aquifers and Groundwater Receptors	The EA classify the superficial Till as a Secondary Undifferentiated Aquifer and the underlying bedrock as a Secondary B Aquifer. The Alluvium along the eastern boundary and in the north eastern area is classified as a Secondary A Aquifer,

	<p>however, given its limited extent on-Site. Is unlikely to form a viable potable groundwater source.</p> <p>The EA also indicate that the Site is not located within a Groundwater Source Protection Zone (SPZ).</p> <p>According to the Envirocheck® Report there are three licenced groundwater abstractions records within 500 m of the Site. All of which are located approximately 480 m north east and relate to extraction for petrochemical process water.</p>
Hydrology	<p>There are two unnamed land drains in the northern and western area of the Site which in turn connect to Corringham Beck, adjacent to the northern boundary. In addition, Yewthorpe Beck is present along the eastern boundary and transects the north eastern corner of the Site.</p> <p>According to the Envirocheck® Report there are no licenced abstraction records from surface water within 500 m of the Site.</p>
Mining & Quarrying	<p>Reference to the Coal Authority on-line viewer indicates that the Site is not with a Coal Mining Reporting Area. Consequently, as such a Coal Mining Risk Assessment (CMRA) is not required under the planning regime.</p> <p>There are no BGS Recorded Mineral Sites within 500 m of the Site.</p>
Radon Gas	<p>The Site lies within an area where less than 1% of homes are above the National Radiological Protection Board (NRPB) recommended “action level” for radon. BRE211 (2015) indicates that no radon protective measures are necessary in the construction of new buildings at the Site.</p>
Agricultural Buried Waste	<p>Legal burial of waste, including asbestos containing materials (ACM) for agriculture was banned in 2006.</p> <p>Prior to that date it is understood farmers were required to make a record of waste burial locations and recommended use a clean cover of soil.</p> <p>There are no known records of agricultural buried waste for this Site, but infilled ponds may represent a source of contamination.</p>

2.3 Sensitive Land Use

Ecological Receptors	It is understood from information provided within the Envirocheck Report that there are no statutory ecological receptors located within 500 m of the Site.
Heritage Interest	Historic England Records () indicate that there are no heritage interest sites located on or adjacent to the Site.

2.4 Historical Use of the Site & Surrounding Area

2.4.1 Approach

The historical development of the Site and surrounding area has been assessed through a review of historical maps, aerial photographs and Google Earth historical satellite imagery. A summary of the key historical Site uses and developments in the surrounding area is presented below. Copies of selected historical maps are included as Appendix C.

2.4.2 Historical Information Review

The following table provides a review of the historical information for the Site, adjacent and surrounding area.

Historical Features On-Site	From the earliest map edition dated 1885, the Site is largely undeveloped and comprises a series of agricultural fields with associated land drains in the central and
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	<p>western area, consistent with the present day layout. A further small pond and drain are noted in the northern area of the Site.</p> <p>No further changes are noted until the 1972 map edition when two tracks are present in the central area of the Site orientated in an east-west direction, emanating from the off-Site farmyard and residential dwelling in the central area.</p> <p>The pond and drain in the northern area of the Site are no longer shown by aerial imagery dated 1999 and are potentially infilled.</p> <p>No further alterations are noted, and the Site remains consistent until present day.</p>
Potentially Contaminative Historical Features Off-Site	<p>Potential sources of contamination located within 250 m are limited to Corringham Grange farm which is located in the central area of the Site from the earliest map edition dated 1885 until present.</p>

2.4.3 Unexploded Ordnance (UXO)

The Zetica Regional Unexploded Bomb Risk Map for the area of the Site (zeticauxo.com) indicates a low risk from unexploded ordnance at the Site.

2.5 Environmental Database Review

The Landmark Envirocheck® Report provides a database of environmental information held by various statutory bodies including the EA, Local Authority (LA), Health & Safety Executive (HSE) and Public Health England amongst others. A copy of the Envirocheck Report is provided in Appendix D and the most relevant information is summarised below.

Features On-Site	<p>The Landmark Envirocheck® Report lists a Pollution Incident to Controlled Waters in the north western area of the Site. The incident occurred in July 1988 and involved the discharge of organic cattle slurry into a water course, classified as a Category 3 – Minor Incident. Given the low severity of the event and the time elapsed, the incident is not considered to represent a significant risk.</p>
Potentially Contaminative Features Off-Site	<p>Pertinent entries included within the Landmark Envirocheck® Report, located within 250 m of the Site, include the following:</p> <ul style="list-style-type: none"> ▲ A single Licensed Waste Management Facility located approximately 190 m south west. The license is noted as a household, commercial and industrial transfer station, issued in February 1993 and surrendered in June 2002; and ▲ Two Manufacturing and Production Points of Interest located 50 m and 80 m south west relating to livestock and arable farming, respectively. <p>There are no BGS, EA or Historical Landfill Sites within 500 m of the Site.</p>

2.6 Planning Review/Regulatory Enquiries

On-line Planning Review	West Lindsey District Council	Date Accessed	08/11/2021
Findings	<p>There are no planning applications relating to the Site.</p> <p>No additional potentially contaminative activities or other information pertinent to this assessment was identified from the historical planning records.</p>		

3.0 Conceptual Site Model

3.1 Introduction

A Conceptual Site Model (CSM) represents the relationships between contaminant sources, pathways and receptors, to support the identification and assessment of contaminant linkages.

3.2 Potential Contamination Sources

Identified potential contamination sources are presented in the following table:

Reference	Source	Location	Dates Present	Potential Associated Contaminants of Concern
S1	Agricultural use including small scale fuel spills/leaks from machinery	Site-wide	Pre 1885 to present	Heavy metals and hydrocarbon compounds
S2	Potentially infilled drain and pond	North eastern corner	1999 to present	Asbestos, heavy metals, hydrocarbon compounds and hazardous ground gas
S3	Potential for buried asbestos waste	Site-wide	Pre 2006 to present	Asbestos
S4	Unrecorded on and off-Site sources	Unknown	Unknown	Asbestos, heavy metals, hydrocarbon compounds and hazardous ground gas

3.3 Potential Pathways

The potential pathways are considered to be as follows:

- ▲ Direct contact, ingestion or inhalation of soil bound contaminants / dust during or following redevelopment.
- ▲ Inhalation of organic vapours associated with contamination.
- ▲ Migration of ground gas / vapours into on-Site buildings causing asphyxiation or risk of explosion.
- ▲ Leaching of contamination into groundwater followed by migration of groundwater to the wider groundwater environment or discharge to surface waters.
- ▲ Direct contact between aggressive ground conditions and new infrastructure.

3.4 Potential Receptors

Relevant potential receptors are considered to include:

- ▲ Construction workers.
- ▲ Third parties during construction (adjacent Site users and adjacent residents).
- ▲ Future Site users including maintenance workers.
- ▲ Controlled waters including land drains, Corringham Beck and Yewthorpe Beck.
- ▲ The underlying Secondary A, Secondary B and Secondary Undifferentiated Aquifers.
- ▲ The Built Environment (new buildings and infrastructure / utilities).

Source	Pathway(s)	Receptor(s)	Risk Ratings	Justification & Mitigation (if required)
Sources Identified in Section 3.2.	Direct contact/ ingestion and inhalation of dust, vapours and asbestos fibres.	Future Site users. Groundworkers during the redevelopment or during any sub-surface maintenance works.	Very Low Risk	Limited potential sources of contamination have been identified at the Site associated with the Sites former agricultural use. Given the very low sensitivity end use comprising a solar farm the risk to future Site users is considered very low. No further works are considered to be required. A 'hotspot' protocol should be in place during the redevelopment for ground workers to act upon should suspected contamination be identified. Groundworkers should use appropriate personal protective equipment (PPE), including respiratory protective equipment (RPE), if required and maintain good standards of hygiene to be protected from any soil contamination which may be present.
	Leaching of contamination into groundwater. Vertical and lateral migration of contamination through permeable deposits below the Site.	Controlled waters.	Very Low Risk	No significant potential sources have been identified and there are no licensed groundwater abstraction records for potable water within 500 m of the Site, as such, the risk to controlled waters is considered very low.
	Direct contact.	Buried infrastructure.	Low Risk	Sulphates within the ground have the potential to attached buried infrastructure. Based on the anticipated natural clay soils at the Site, the risk is considered low, however it would be prudent to assess the sulphate class of the soils at the time of any geotechnical investigation. It is considered unlikely that new potable supply pipes are required.
Hazardous ground gas (Potential infilled pond in the north east).	Accumulation of gas in enclosed spaces and sub-floor voids.	Buildings and future Site users.	Very Low Risk	Limited sources of ground gas have been identified at the Site associated with a potentially infilled pond and land drain in the north eastern area of the Site. Given the very low sensitivity end use comprising a solar farm with limited infrastructure comprising battery storage and sub-stations, the potential for hazardous ground gas to accumulate is consider very low, as such, no further assessment is required.

4.0 Conclusions & Recommendations

4.1 Land Contamination Risks and Liabilities

Soils	Given the very low sensitivity end use comprising a solar farm the risk to future Site users is considered very low and no further assessment is required.
Groundwater	No significant potential sources have been identified and there are no licensed groundwater abstraction records for potable water within 500 m of the Site, as such, the risk to controlled waters is considered very low.
Ground Gas	Limited sources of ground gas have been identified at the Site associated with a potentially infilled pond and land drain in the north eastern area of the Site. Given the very low sensitivity end use comprising a solar farm, the potential for hazardous ground gas to accumulate is consider low, however, given no proposed development plans have been provided the risk should be re-assessed following determination of the layout. Should buildings be proposed in this area of the Site a limited investigation should be undertaken to assess the potential for hazardous ground gas generation and requirement for any ground gas protection measures.
Building Fabric & Services	Aggressive ground chemistry may attack buried concrete and therefore there may be a requirement for protection measures to be put in place at the Site.
Materials Management	Earthworks will need to be undertaken under a Materials Management Plan (MMP) in accordance with the CL:AIRE Code of Practice to facilitate the reuse of these materials. The Contractor shall be responsible for the preparation of a MMP and obtaining appropriate sign off from a Qualified Person prior to the commencement of earthworks.
Potential Contaminated Land Development Risks	Widespread contamination is considered unlikely and the preliminary risk assessment has identified a very low to low risk of soil/groundwater contamination and hazardous ground gas at the Site.

4.2 Geotechnical Considerations

Uncertainty and Data Gaps	This assessment is based on desk study information only. No Site-specific ground investigation data has made available for review.
Preliminary Ground Model	Based on the available information, it is anticipated that the Site is likely underlain by a sequence of Topsoil underlain by superficial Till across the majority of the Site with the potential for Alluvium (clay, silt, sand and gravel) to encroach along the eastern boundary and be present in the north east, subsequently underlain by bedrock of the Scunthorpe Mudstone Formation. Given the presence of a land drains, Corringham Beck and Yewthorpe Beck on and adjacent to the Site, groundwater is expected to be shallow or perched.
Plausible Geo-Hazards	The geohazards listed below have been identified to follow guidance presented in the HE document CD622 'Managing Geotechnical Risk' (2019) which aims to identify and manage the geotechnical risks associated with a scheme throughout its lifespan, from planning to construction to maintenance. The following geohazards are considered to be substantial ground related risks associated with the proposed development. A substantial risk is defined by Delta-Simons in Appendix B.

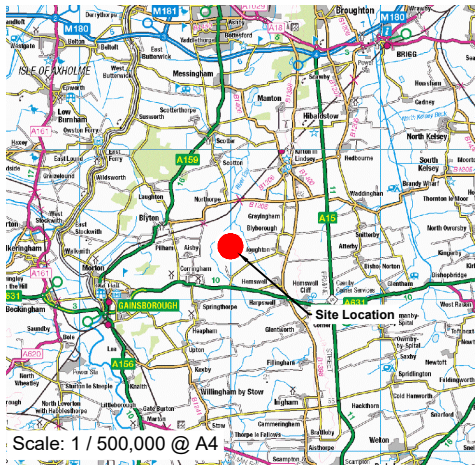
	<ul style="list-style-type: none"> ▲ Potential for Made Ground associated with the potentially infilled pond in the north east. Made Ground is typically variable in nature and strength with a potentially low bearing capacity and unacceptable levels of total/differential settlement may occur; ▲ Potential soft, variable and compressible superficial Alluvial deposits which have potentially low bearing capacity and unacceptable levels of total/differential settlement may occur; and ▲ Possible shrink/swelling of clay due to trees bordering the Site and along field boundaries.
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4.3 Recommendations and Development Constraints

Recommendations	<p>The following recommendations and development abnormals area considered appropriate;</p> <ul style="list-style-type: none"> ▲ A geotechnical Site investigation to assess in-situ geotechnical soil strength testing / laboratory testing and CBRs, in order to inform proposed foundation/roadway design; ▲ A hotspot protocol should be put in place for groundworks to act upon should potential contamination be identified; and <p>Subject to the proposed development scheme a Materials Management Plan (MMP) may be required in accordance with regulatory protocols during redevelopment.</p>
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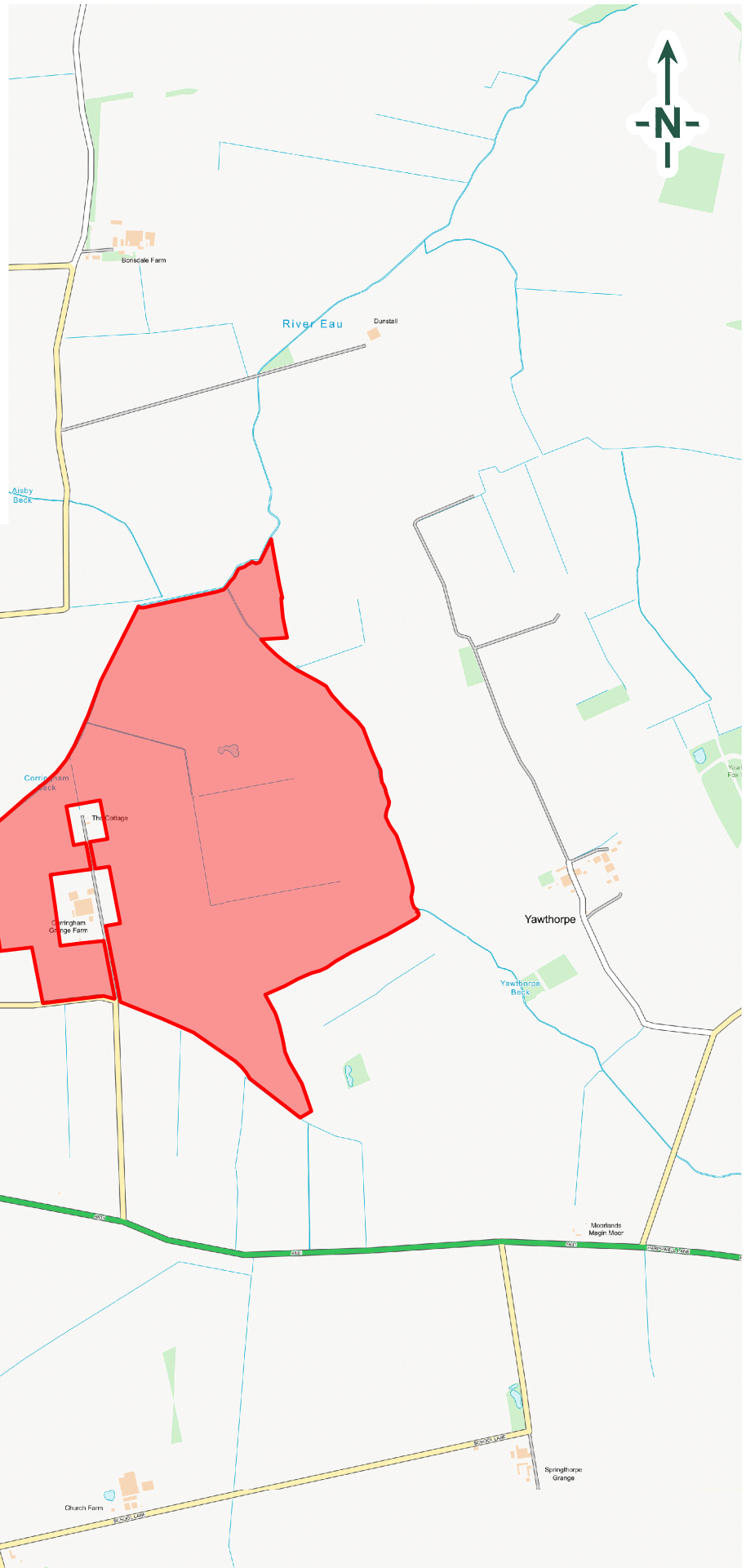
Figures

Figure 1 – Site Location Map



LEGEND

Site Boundary



Scale: 1 / 20,000 @ A4

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TITLE:
 Site Location Map
 Cottam Solar Project
 Cottam 2


DRAWN BY:	JR	SCALE:	To Scale@A4
CHECKED BY:	PH	REVISION:	1
DATE:	8th November 2021		

PROJECT NO:	21-1088
FIGURE NO:	1

Figure 2 – Site Layout Plan



LEGEND

 Site Boundary



Bing maps



TITLE:
Site Layout Plan
Cottam Solar Project
Cottam 2

DRAWN BY: JR	SCALE: Not to Scale	PROJECT NO: 21-1088.02
CHECKED BY: PH	REVISION: 1	FIGURE NO: 2
DATE: 8th November 2021		

Figure 3 – Relevant Feature Plan

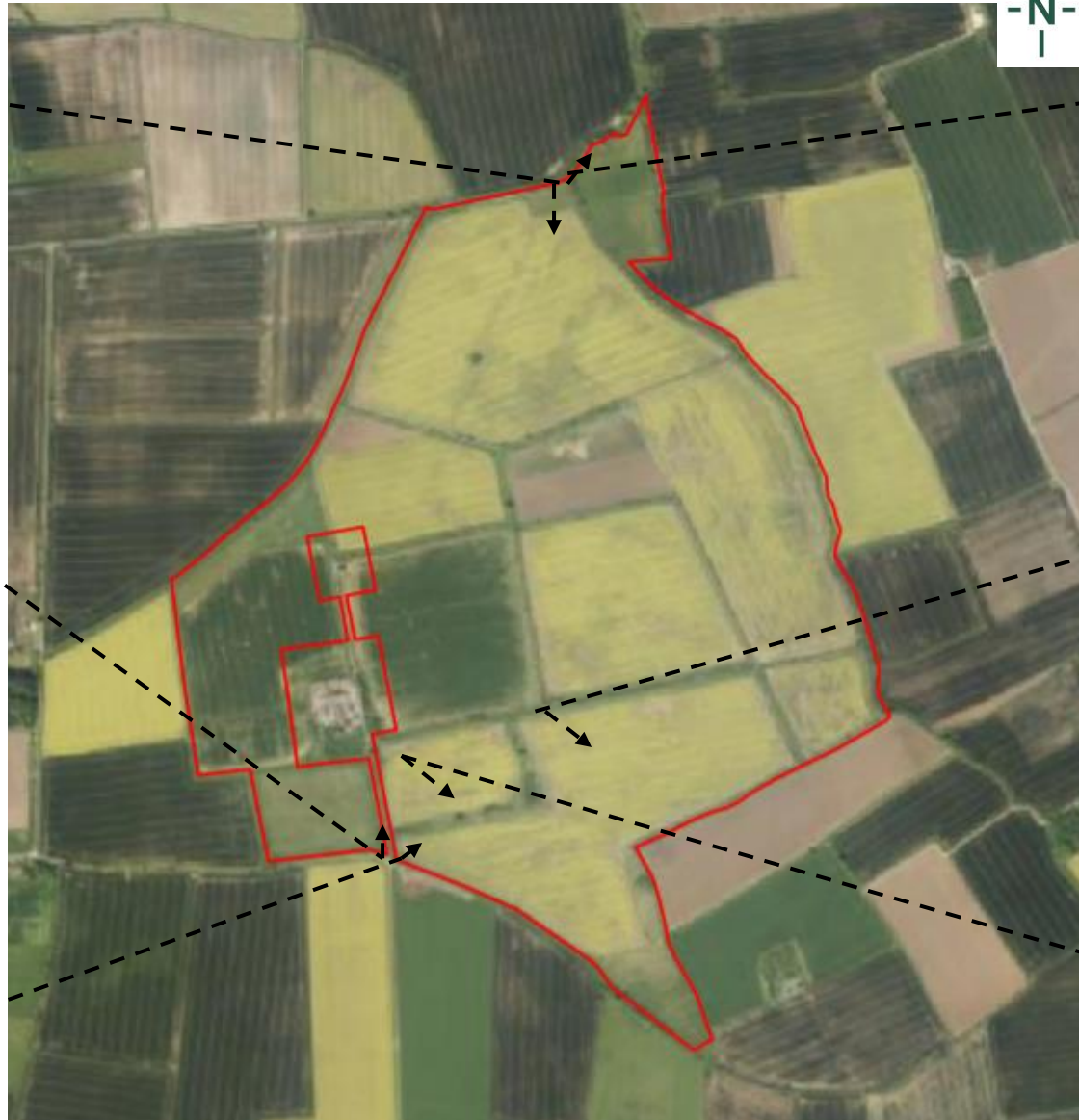
PH01: View across northern area



PH02: Access road off-Site in central area



PH03: View across southern area



Bing maps

COMMENTS: There is uncertainty as unrecorded land use may have occurred and caused contamination that has not been identified by the observations.

PH04: Yewthorpe Beck



PH05: View across southern area



PH06: View across southern area



Appendices

Appendix A – Limitations

Limitations

This Report was prepared by Delta-Simons Environmental Consultants Ltd (Delta-Simons) for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. Delta-Simons does not intend, without its written consent through a formal letter of reliance or warranty, for this Report to be disseminated to any party other than the named Client or to be used or relied upon by any party other than the named Client. Use of the Report by any other party is unauthorised and such use is at the sole risk of the user. Any party using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by Delta-Simons. Unless explicitly agreed otherwise, in writing, this Report has been prepared under Delta-Simons' Standard Terms and Conditions as included within our proposal to the Client.

The recommendations contained within this Report represent Delta-Simons professional opinions, based upon the information detailed within the Report, exercising the reasonable skill and care to be expected of a professional consultant holding itself out as having the competence, experience and resources necessary for the purpose of carrying out similar work in scope and character to the services performed. The Report needs to be considered in the light of the proposal and associated limitations of scope. The Report needs to be read and considered in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the Report.

Where Delta-Simons has obtained, reviewed and evaluated information in preparing this Report from the Client and others and Delta-Simons conclusions, opinions and recommendations has been reasonably determined using this information, Delta-Simons does not warrant the accuracy of the third-party information provided to it and cannot be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

Site surveys document the conditions encountered at the time of survey only and conditions may change due to natural processes or human intervention. As such, surveys represent an assessment at a specific point in time and Delta-Simons cannot be responsible for adverse conditions which arise or become apparent after the time of the survey or for conditions which sit outside the scope for which the survey or Report was commissioned.

Where intrusive investigations have been completed, information, comments and opinions given in this report are based on the ground conditions encountered during the site work period and on the results of laboratory and field tests performed during the investigation. Ground conditions are inherently variable such that no investigation can be exhaustive to the extent that all adverse conditions are revealed. Conditions may therefore be present beneath the site that were not apparent in the data reviewed or obtained as part of this assessment. It should be noted that groundwater levels vary due to seasonal and other effects and may at times differ to those measured during the investigation. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions. Where risk assessment is undertaken, this is based upon the standards, guidance and common practice at the time of the assessment and Delta-Simons cannot be responsible for conditions which become apparent following changes in guidance or practice or advancements in scientific knowledge which change the position in relation to assessment of risk.

No aspect of this Report constitutes a design. Where this information is used in design, the designer should verify the information has been used appropriately.

Where budgets are prepared and presented within the Report, these are for information only to indicate the likely magnitude of a cost and do not represent an invitation to treat for the works. All budgets and programmes presented should be reviewed and verified by appropriately qualified and experienced independent Project Managers and Cost Consultants.

Appendix B – Risk Definitions

Contaminated Land Risk Definitions

The following methodology is based on the methodology presented in CIRIA C552 Contaminated Land Risk Assessment: A Guide to Good Practice 2001. It requires the classification of the:

Magnitude of the potential consequence (severity) of the Risk occurring: and

Magnitude of the Probability (likelihood) of the Risk occurring.

The classifications are then compared to indicate the risk presented by each pollutant linkage.

Consequence to Receptor Definition Matrix

	Human Health	Controlled Waters	Buildings/Services
Severe Consequence	Acute or chronic permanent impact on human health.	Sensitive controlled water pollution ongoing, or just about to occur.	Catastrophic collapse
Medium Consequence	Chronic permanent impact on human health	Gradual pollution of sensitive controlled water	Degradation of materials
Mild Consequence	Chronic temporary impact on human health	Gradual pollution of non-sensitive controlled water	Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor Consequence	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc).	Slight discoloration of water	Easily repairable effects of damage to buildings, structures and services, i.e. discoloration of concrete

Probability Definitions

Probability	Definition in Context
Higher	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution. Positive evidence of source, pathway and receptor.
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term. Suspect source, pathway, and receptor
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term. No evidence of hazard, pathway, and receptor

Standard Risk Matrix

		Consequence/Magnitude of impact			
		Severe	Medium	Mild	Minor
Probability	High	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/low	Low
	Low Likelihood	Moderate	Moderate/low	Low	Very Low
	Unlikely	Moderate/low	Low	Very Low	Very Low

Classified risks and likely action

Significance Level	Definition/Comments
Very High Risk	<p>There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening.</p> <p>This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.</p> <p>Demonstrable contaminated land situation, highest threat & liability level, urgent action recommended.</p>
High Risk	<p>Harm is likely to arise to a designated receptor from an identified hazard.</p> <p>Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.</p> <p>Likely contaminated land situation, risk assessment and action recommended.</p>
Moderate	<p>It is possible that harm could arise to a designated receptor from an identified hazard. However, if is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.</p> <p>Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.</p> <p>Plausible contaminated land situation, risk assessment and possible action recommended.</p>
Low Risk	<p>It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.</p> <p>Unlikely contaminated land situation, possible risk assessment and possible action.</p>
Very Low Risk	<p>There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.</p> <p>Negligible risk, no action recommended except vigilance for changes in conditions.</p>

Geotechnical Risk Classification

The geohazards listed in the report within Section 4 follow guidance presented in Clayton, C.R.I. (2001) *Managing Geotechnical Risk*, Thomas Telford and the Highways Agency document CD622 ‘*Managing Geotechnical Risk*’ (2008) which aims to identify and manage the geotechnical risks associated with a scheme throughout its lifespan, from planning to construction to maintenance.

For each geohazard the probability of the hazard occurring (P) has been considered together with the impact it would have (I) if it were to happen to calculate the risk rating between 1 and 25.

Risks that fall within Moderate, Significant and Severe categories below are considered to be **substantial** and are therefore listed within the report.

Probability	(P)	X	Impact	(I)	=	(R)	Risk
Very Likely (VLk)	5		Very High (VH)	5		20 – 25	Severe
Likely (Lk)	4		High (H)	4		15 – 19	Substantial
Plausible (P)	3		Medium (M)	3		10 – 14	Moderate
Unlikely (U)	2		Low (L)	2		5 – 9	Minor
Very Unlikely (VU)	1		Very Low (VL)	1		1 – 4	Negligible

Appendix C – Historical Maps

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

- Gravel Pit
- Sand Pit
- Other Pits
- Quarry
- Shingle
- Orchard
- Osiers
- Reeds
- Marsh
- Mixed Wood
- Deciduous
- Brushwood
- Fir
- Furze
- Rough Pasture
- Arrow denotes flow of water
- Trigonometrical Station
- Site of Antiquities
- Bench Mark
- Pump, Guide Post, Signal Post
- Well, Spring, Boundary Post
- 285** Surface Level
- Sketched Contour
- Instrumental Contour
- Main Roads
- Minor Roads
- Sunken Road
- Raised Road
- Road over Railway
- Railway over River
- Railway over Road
- Level Crossing
- Road over River or Canal
- Road over Stream
- Road over Stream
- County Boundary (Geographical)
- County & Civil Parish Boundary
- Administrative County & Civil Parish Boundary
- County Borough Boundary (England)
- County Burgh Boundary (Scotland)
- Rural District Boundary
- Civil Parish Boundary

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Direction of Flow of Water
- Shingle
- Sand
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
- Civil Parish
Shown alternately when coincidence of boundaries occurs
- BP, BS Boundary Post or Stone
- Ch Church
- CH Club House
- F E Sta Fire Engine Station
- FB Foot Bridge
- Fn Fountain
- GP Guide Post
- MP Mile Post
- MS Mile Stone
- Pol Sta Police Station
- PO Post Office
- PC Public Convenience
- PH Public House
- SB Signal Box
- Spr Spring
- TCB Telephone Call Box
- TCP Telephone Call Post
- W Well

1:10,000 Raster Mapping

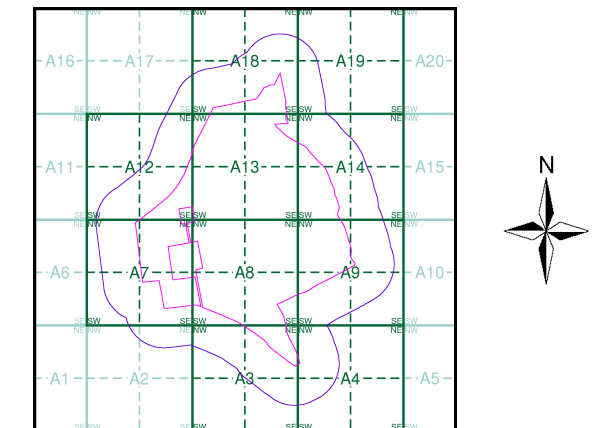
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary
- Area of wooded vegetation
- Non-coniferous trees (scattered)
- Coniferous trees (scattered)
- Orchard
- Rough Grassland
- Scrub
- Water feature
- MHW(S) Mean high water (springs)
- Bench mark (where shown)
- Point feature (e.g. Guide Post or Mile Stone)
- Site of (antiquity)
- General Building
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- Underground detail
- Narrow gauge railway
- Single track railway
- Civil, parish or community boundary
- Constituency boundary
- Non-coniferous trees
- Coniferous trees
- Positioned tree
- Coppice or Osiers
- Heath
- Marsh, Salt Marsh or Reeds
- Flow arrows
- MLW(S) Mean low water (springs)
- Triangulation station
- Pylon, flare stack or lighting tower
- Glasshouse
- Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:10,560	1885 - 1886	2
Lincolnshire	1:10,560	1907	3
Lincolnshire	1:10,560	1907	4
Lincolnshire	1:10,560	1948	5
Ordnance Survey Plan	1:10,000	1956	6
Ordnance Survey Plan	1:10,000	1983	7
10K Raster Mapping	1:10,000	2000	8
10K Raster Mapping	1:10,000	2006	9
VectorMap Local	1:10,000	2021	10

Historical Map - Slice A



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

Lincolnshire

Published 1885 - 1886

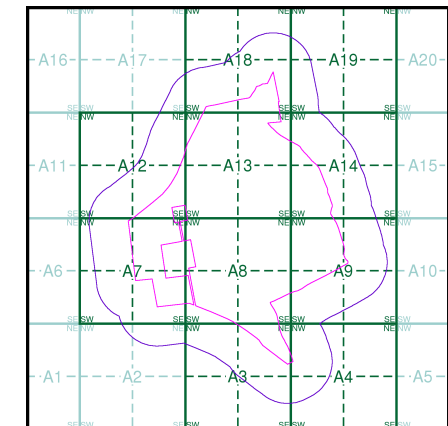
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

035SW 1886 1:10,560	035SE 1886 1:10,560
043NW 1885 1:10,560	043NE 1885 1:10,560

Historical Map - Slice A

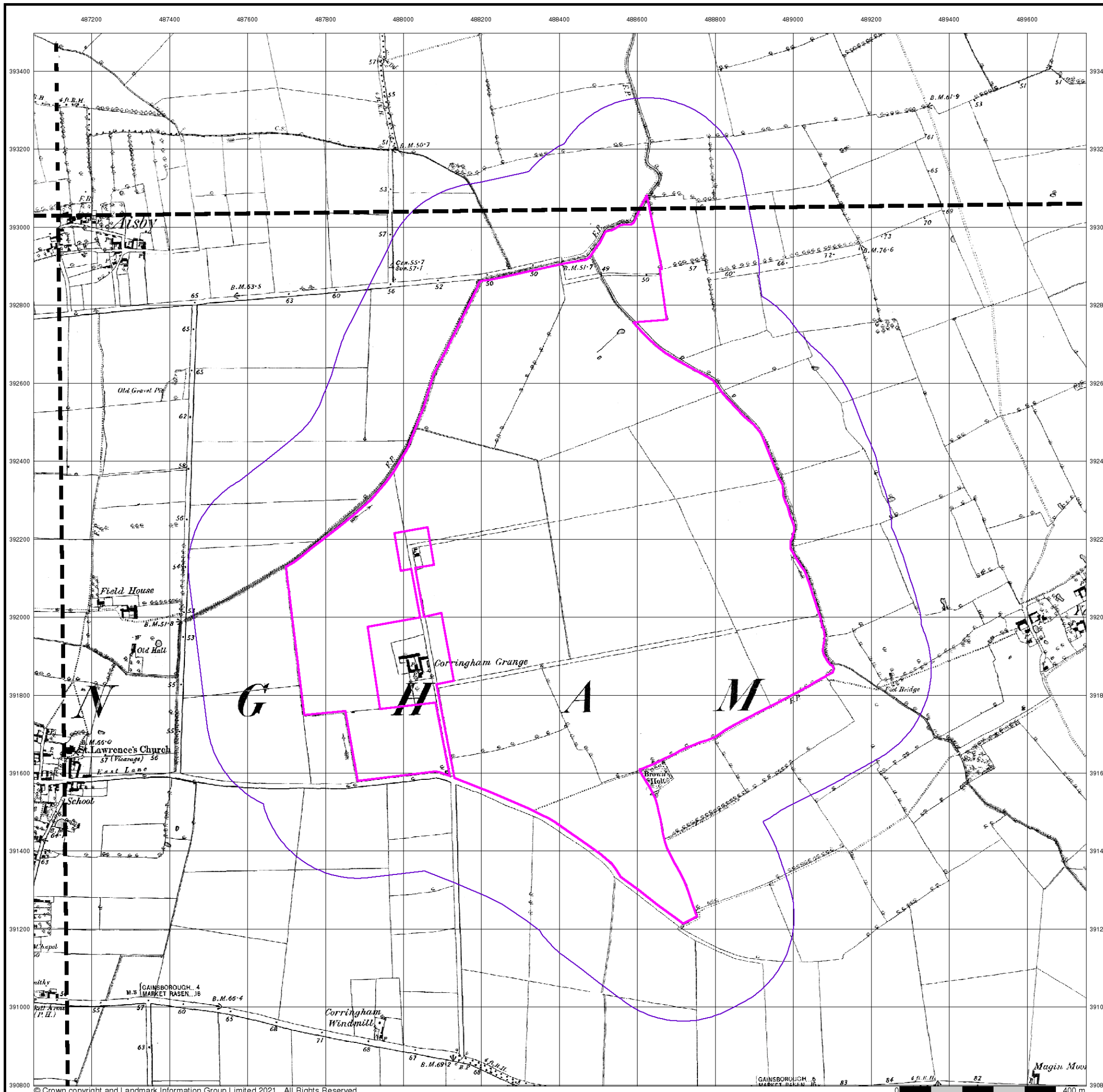


Order Details

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 Customer Ref: 21-1088.02
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 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



Lincolnshire

Published 1907

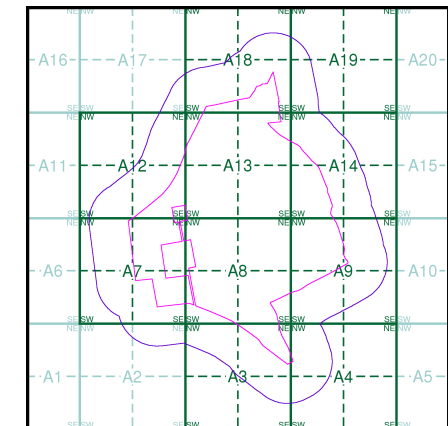
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

035SW 1907 1:10,560	035SE 1907 1:10,560
043NW 1907 1:10,560	043NE 1907 1:10,560

Historical Map - Slice A

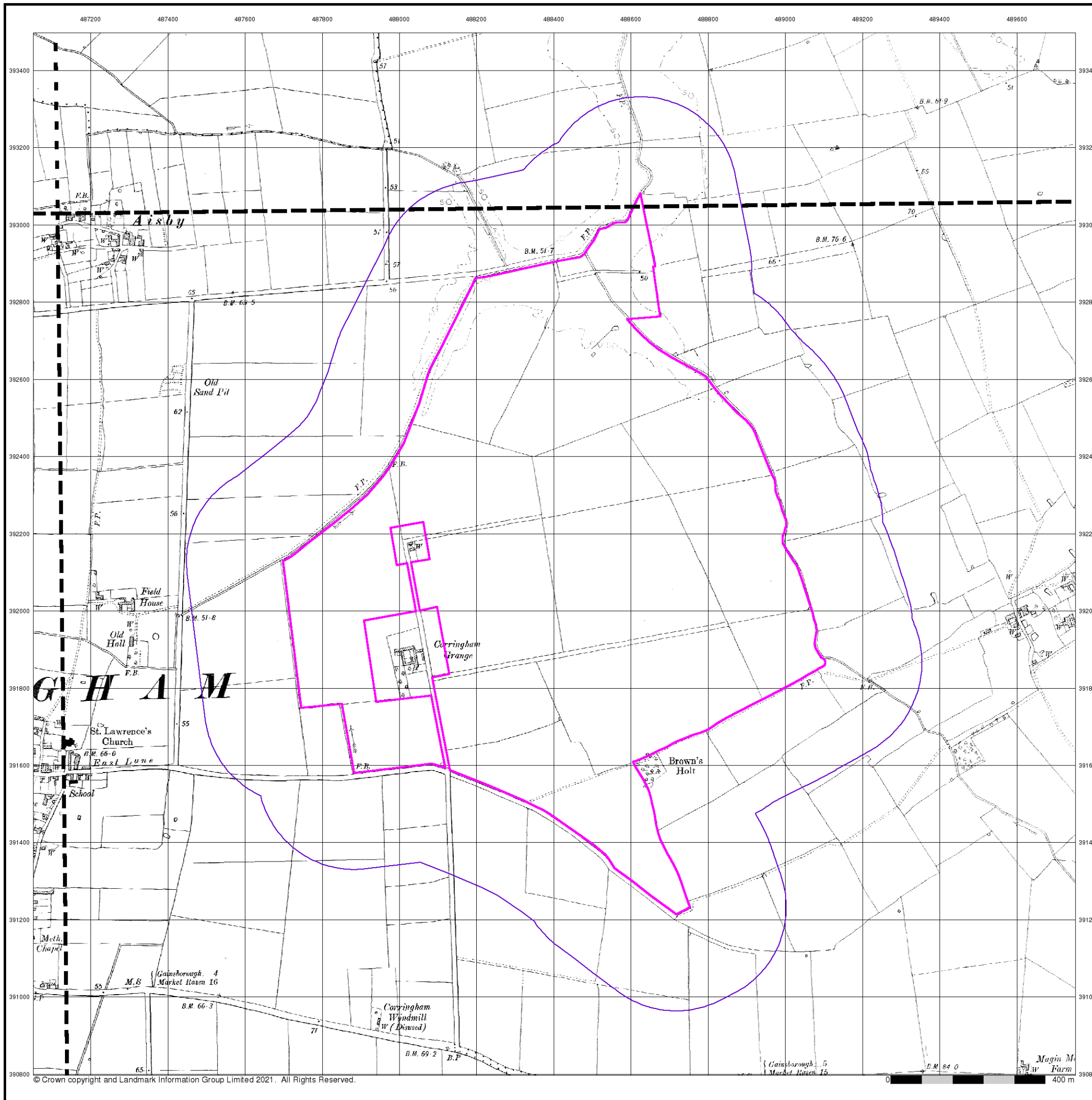


Order Details

Order Number: 287331185_1_1
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 National Grid Reference: 488430, 392110
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 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



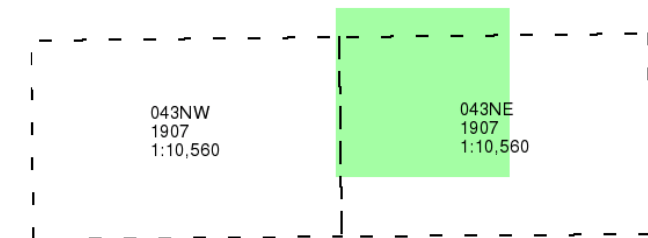
Lincolnshire

Published 1907

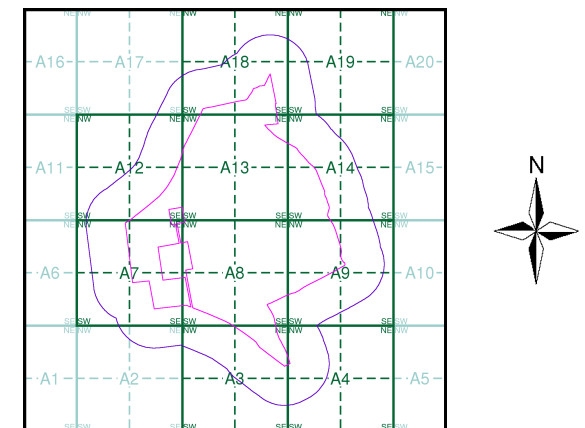
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

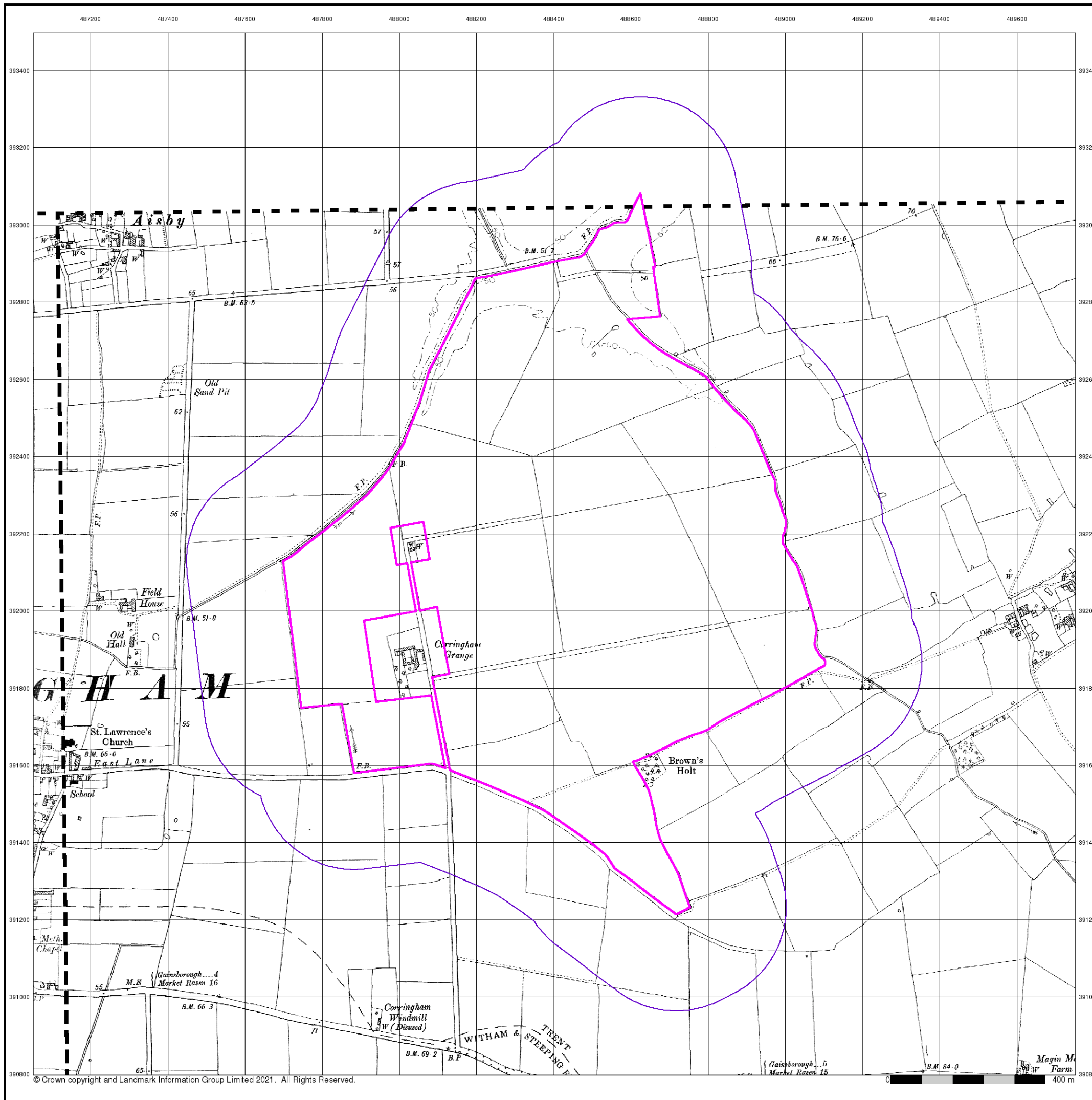


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



Lincolnshire

Published 1948

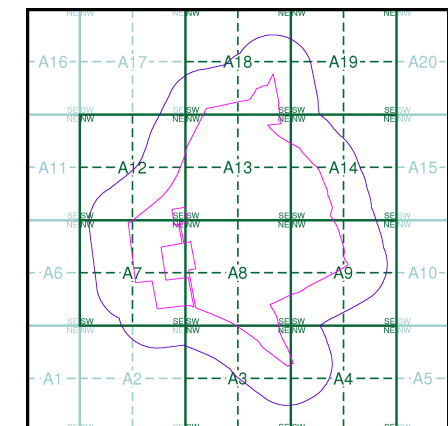
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

035SW 1948 1:10,560	035SE 1948 1:10,560
043NW 1948 1:10,560	043NE 1948 1:10,560

Historical Map - Slice A

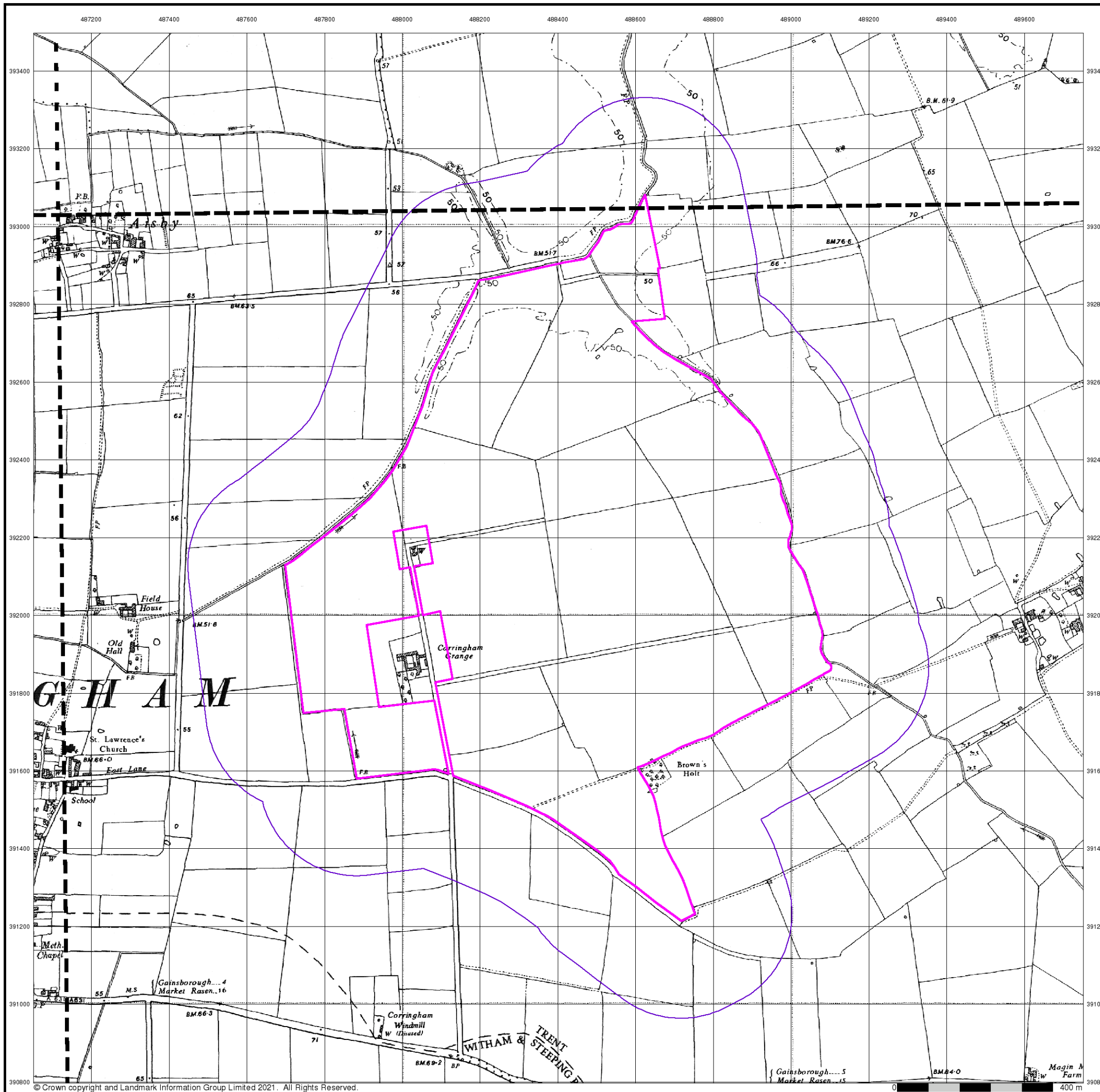


Order Details

Order Number: 287331185_1_1
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Site Details

Cottam 2



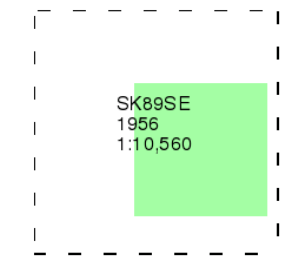
Ordnance Survey Plan

Published 1956

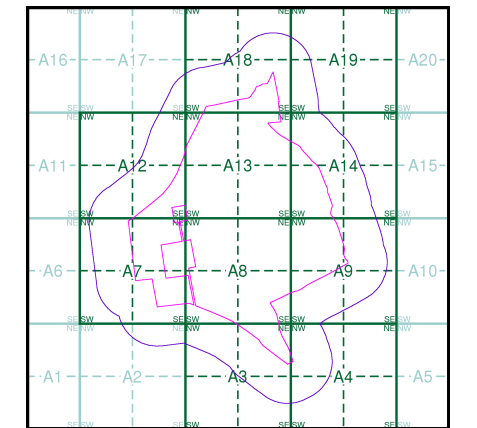
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

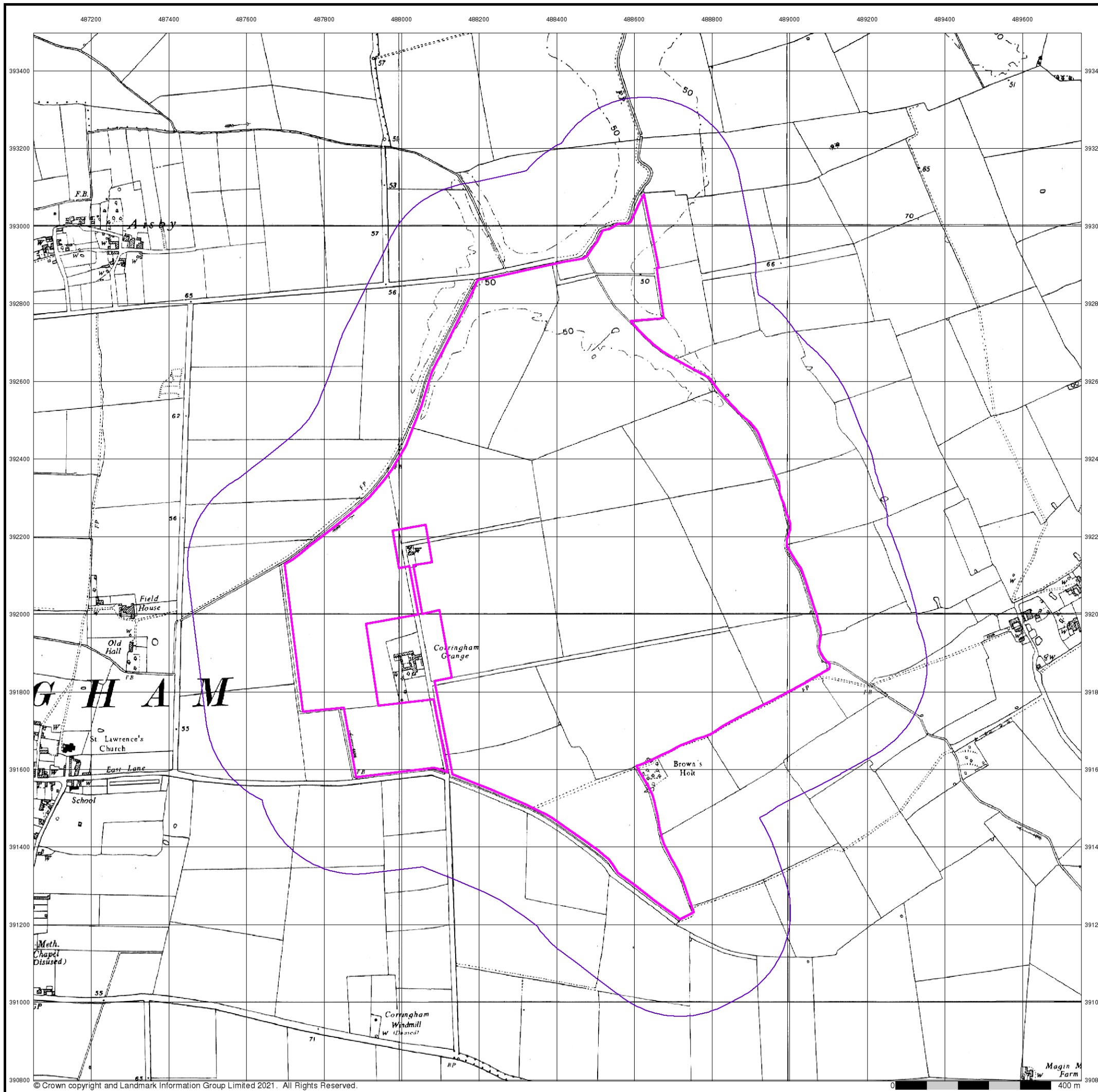


Order Details

Order Number:	287331185_1_1
Customer Ref:	21-1088.02
National Grid Reference:	488430, 392110
Slice:	A
Site Area (Ha):	131.94
Search Buffer (m):	250

Site Details

Cottam 2



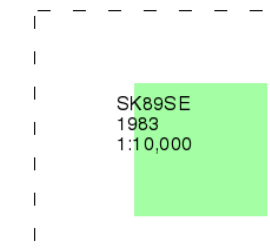
Ordnance Survey Plan

Published 1983

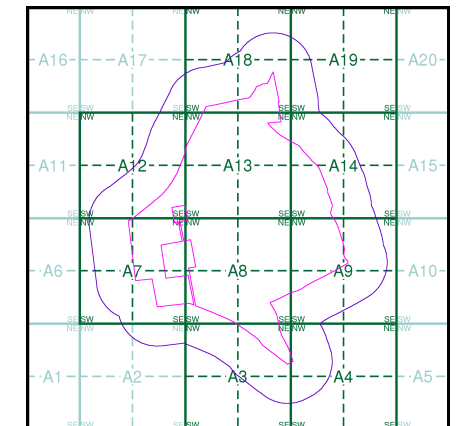
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

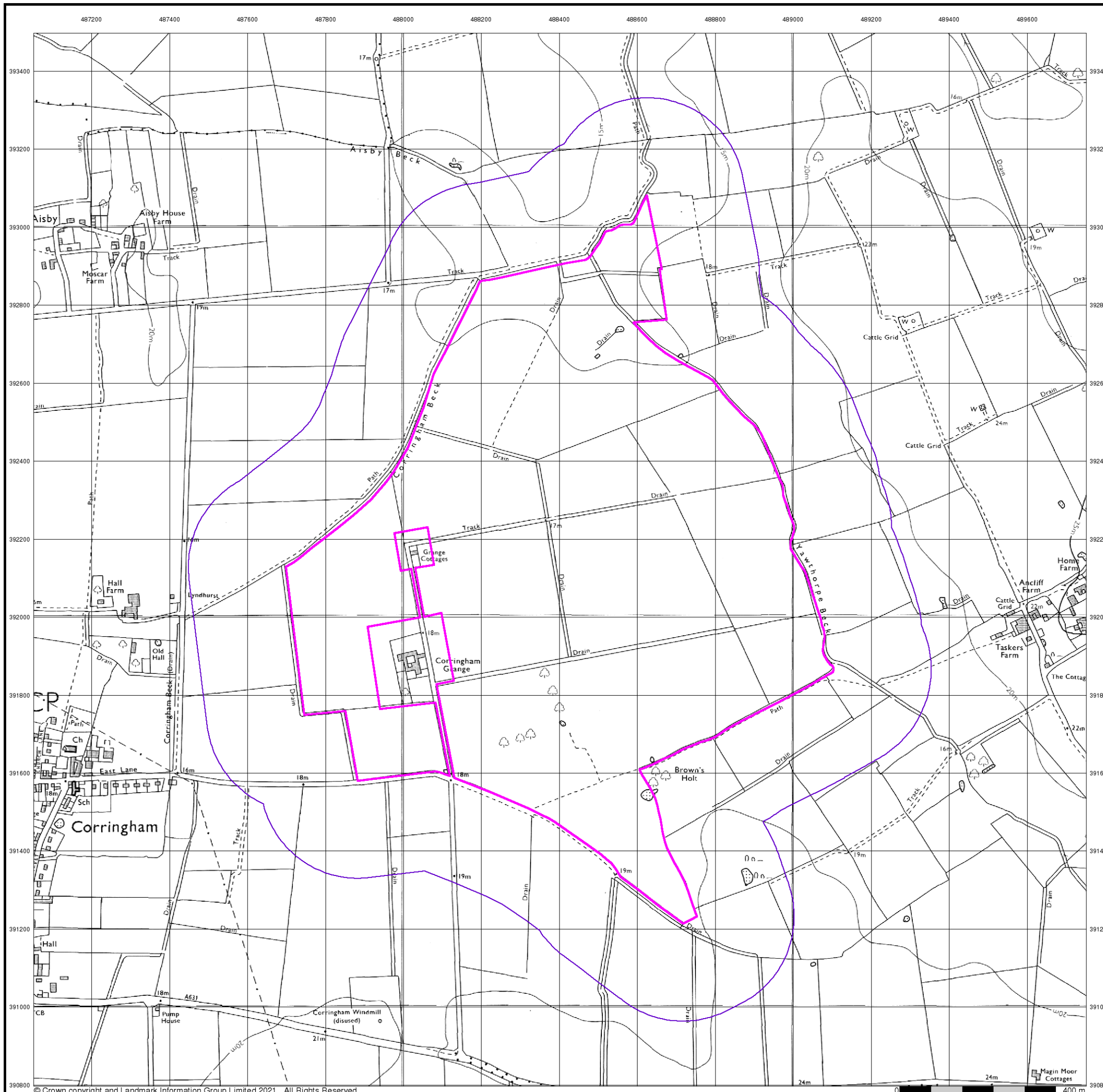


Order Details

Order Number: 287331185_1_1
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 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



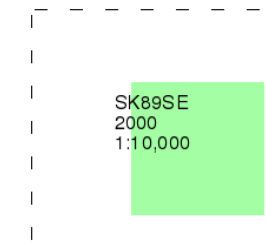
10k Raster Mapping

Published 2000

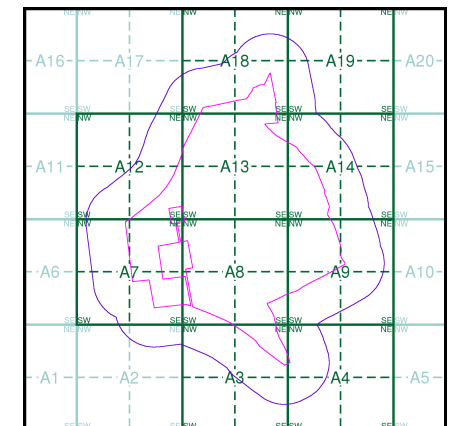
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A

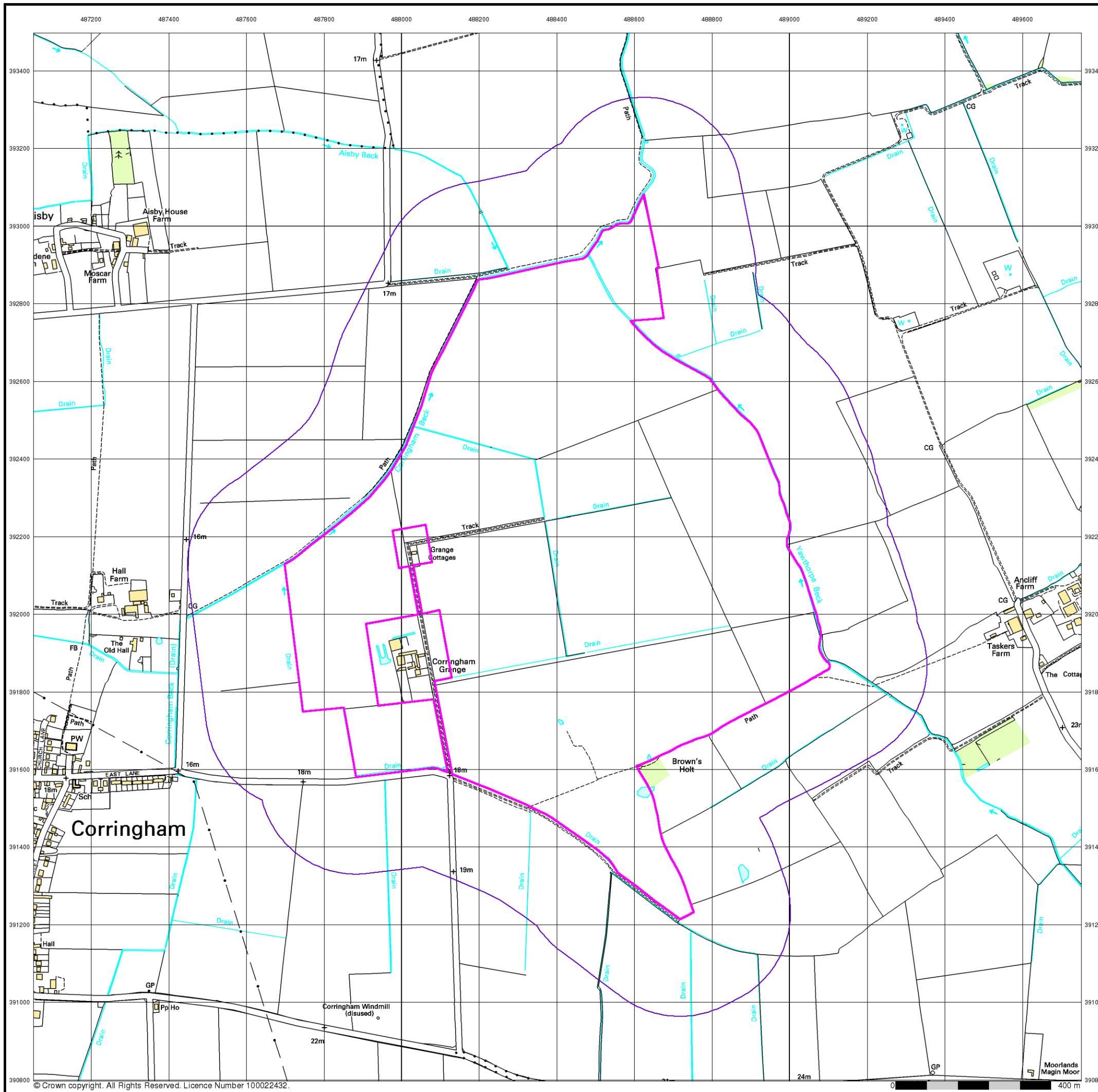


Order Details

Order Number: 287331185_1_1
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 National Grid Reference: 488430, 392110
 Slice: A
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 Search Buffer (m): 250

Site Details

Cottam 2



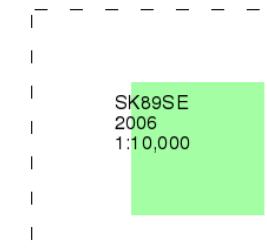
10k Raster Mapping

Published 2006

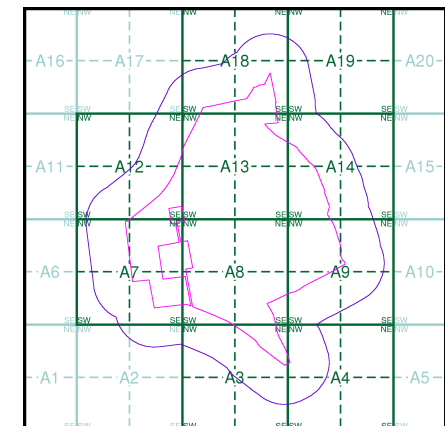
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A

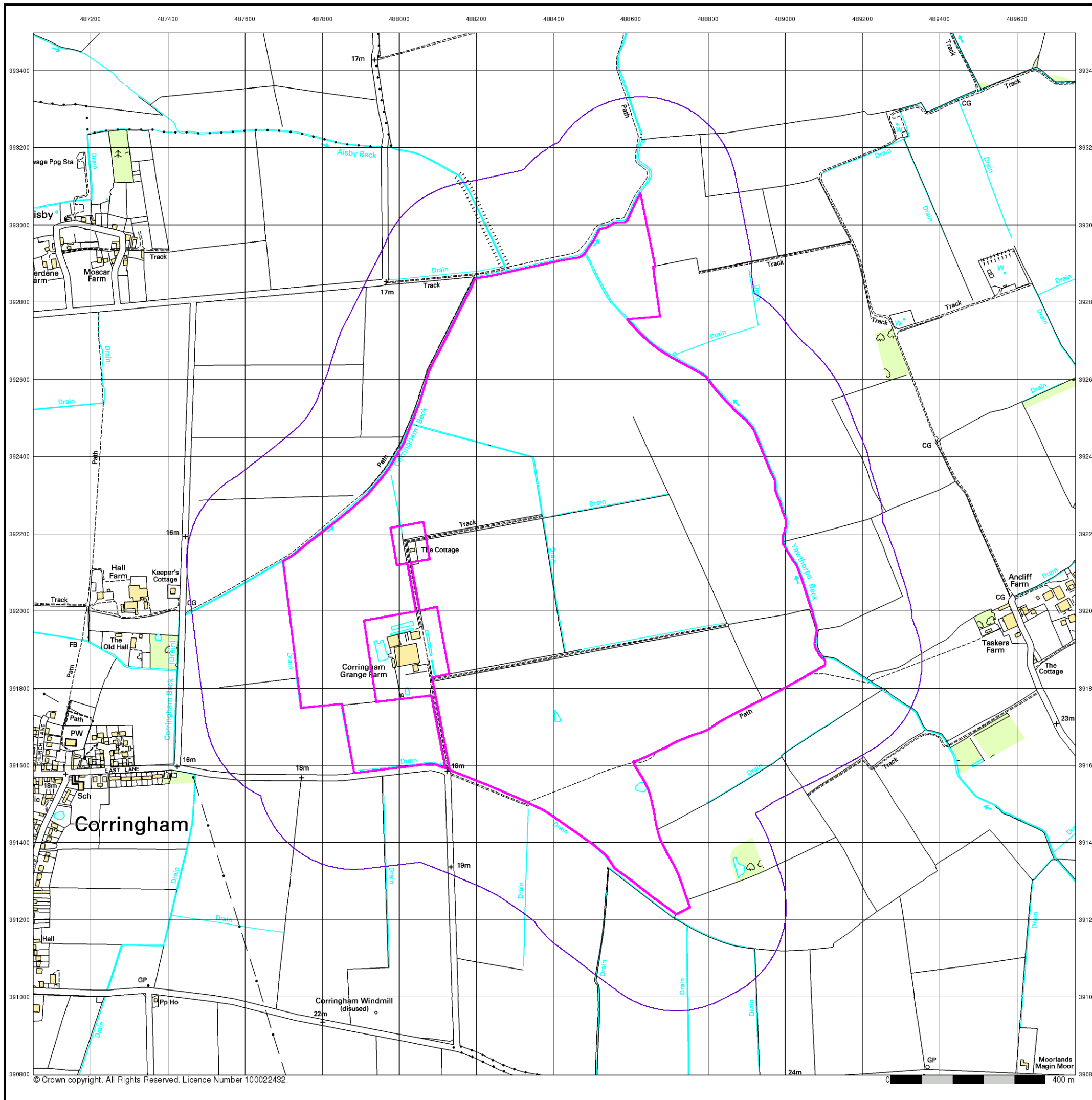


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



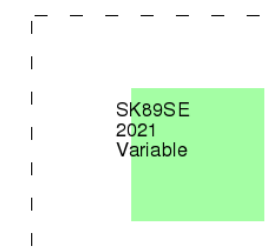
VectorMap Local

Published 2021

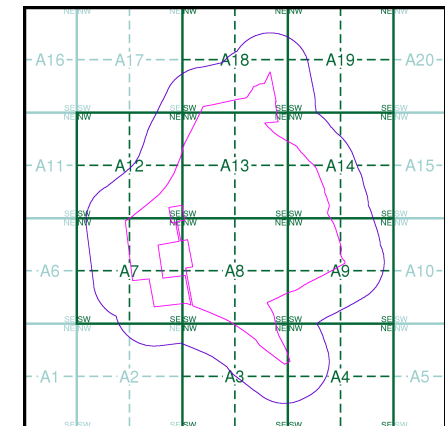
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A

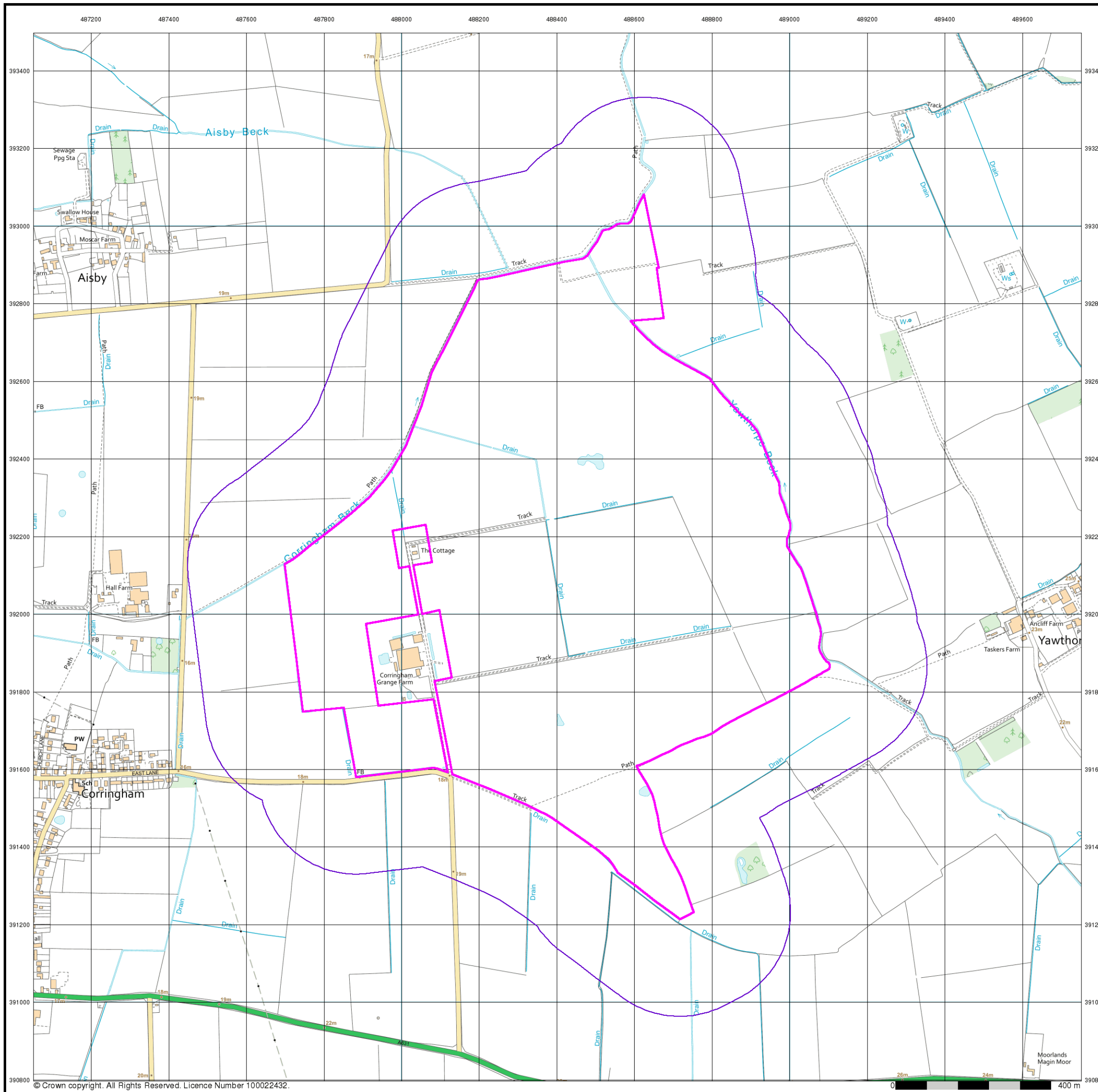


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 250

Site Details

Cottam 2



Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250

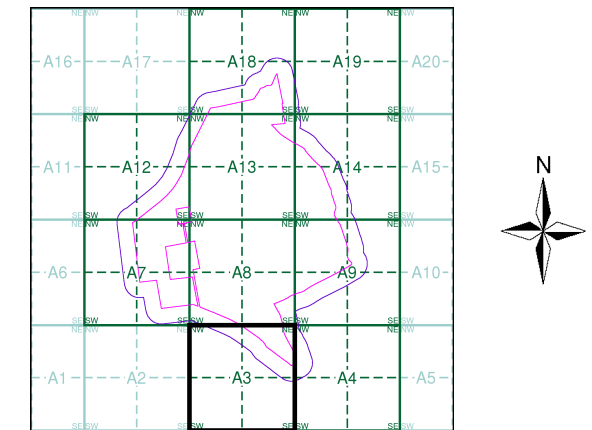
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:2,500	1886	2
Lincolnshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1972	4
Large-Scale National Grid Data	1:2,500	1994	5
Historical Aerial Photography	1:2,500	1999	6

Historical Map - Segment A3



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



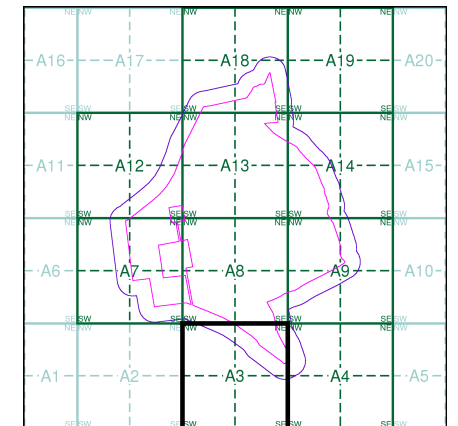
Tel: [Redacted]
 Fax: [Redacted]
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

043_03
1886
1:2,500
043_07
1886
1:2,500

Historical Map - Segment A3

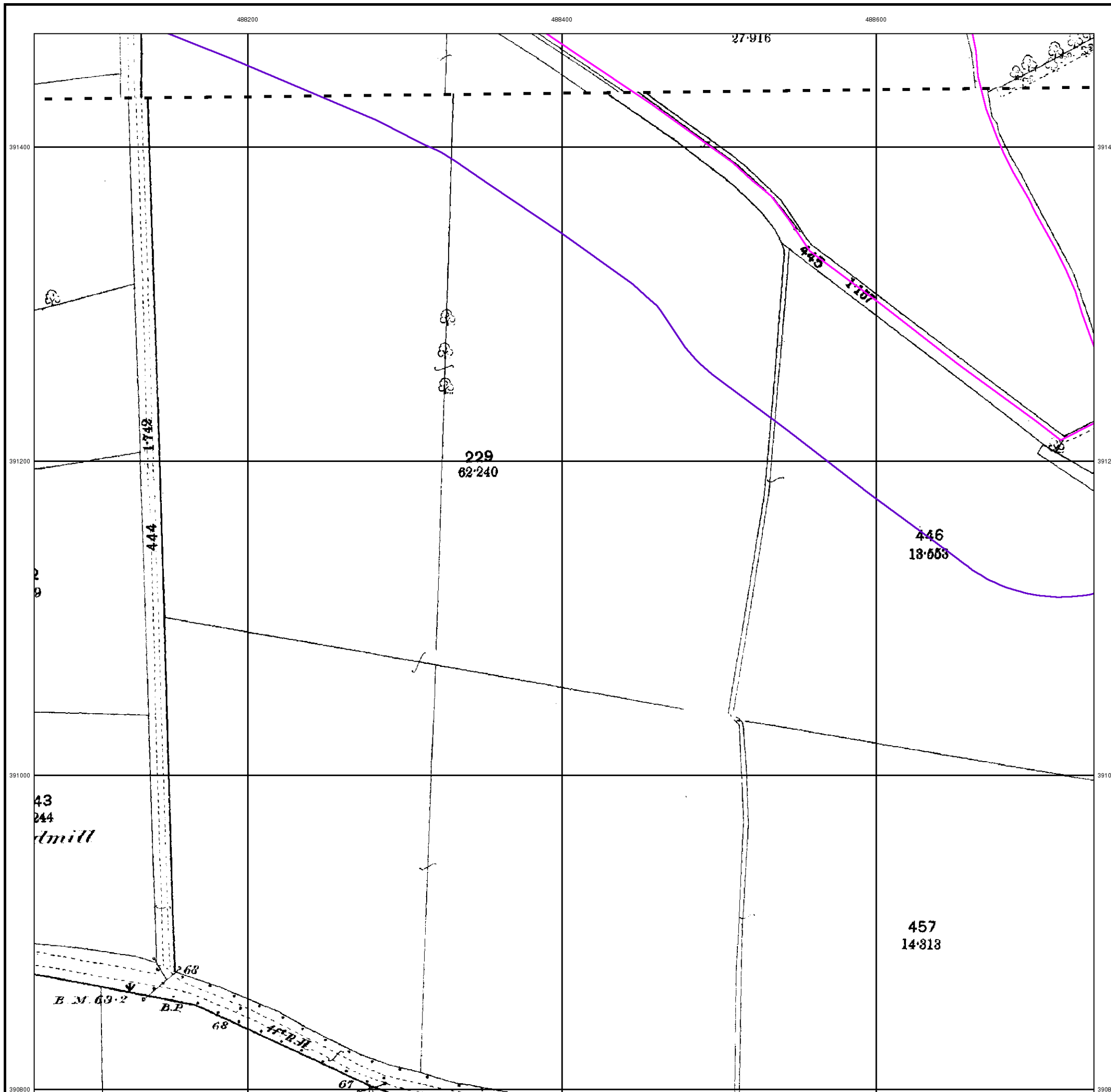


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2

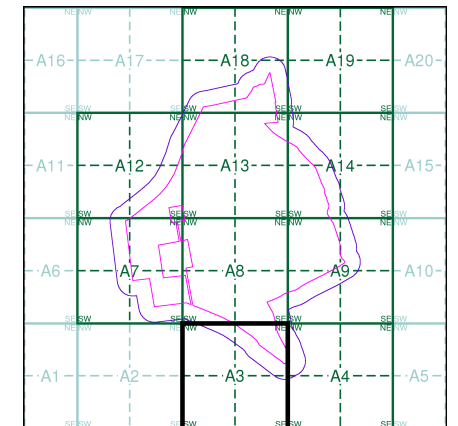


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

043_03	1906	1:2,500
043_07	1906	1:2,500

Historical Map - Segment A3

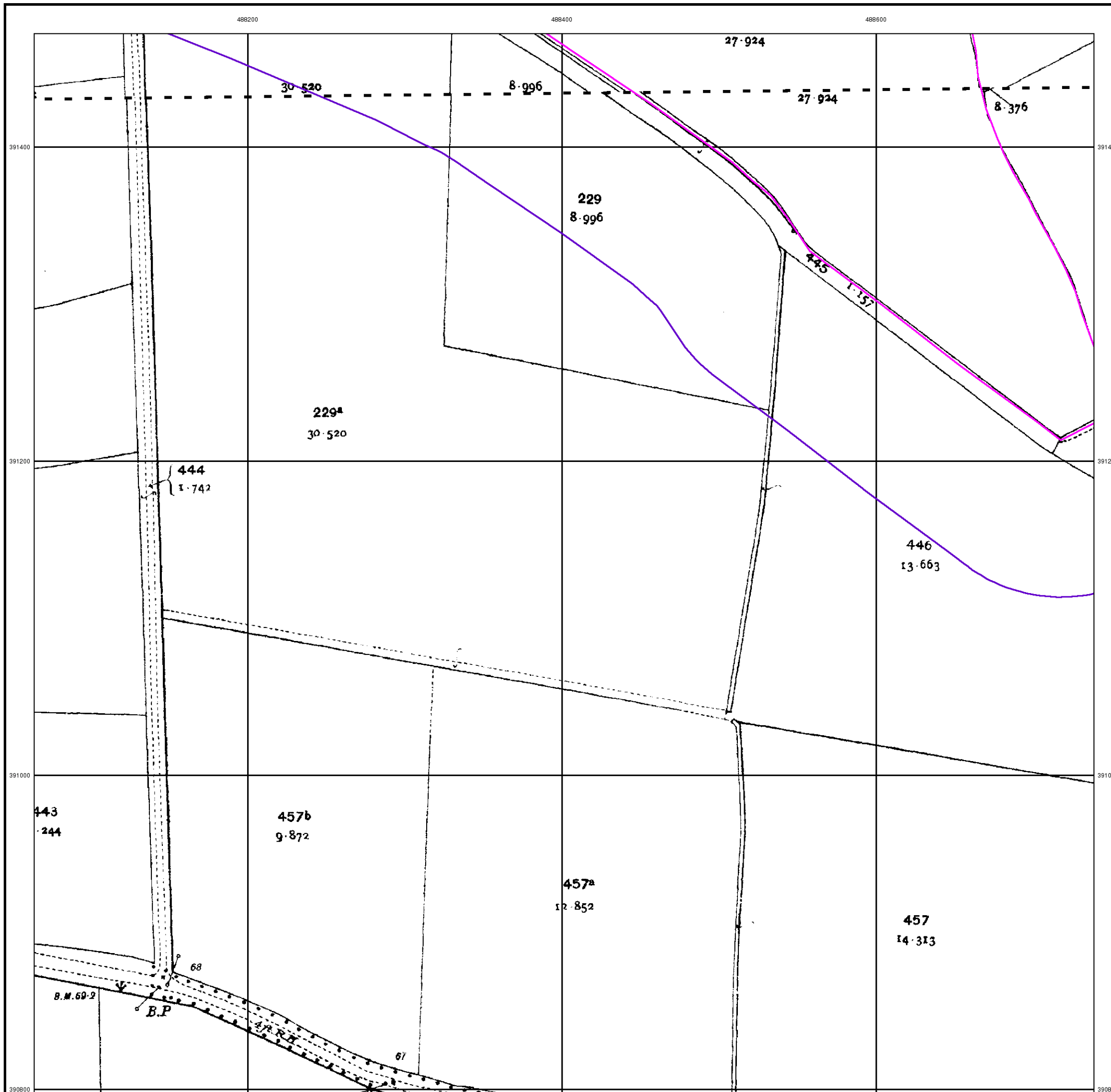


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Ordnance Survey Plan

Published 1972

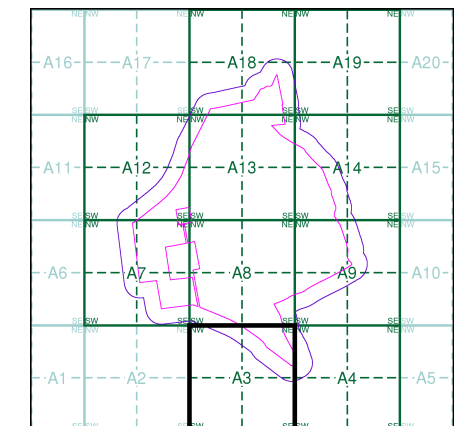
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SK8891	1972	1:2,500
SK8890	1972	1:2,500

Historical Map - Segment A3

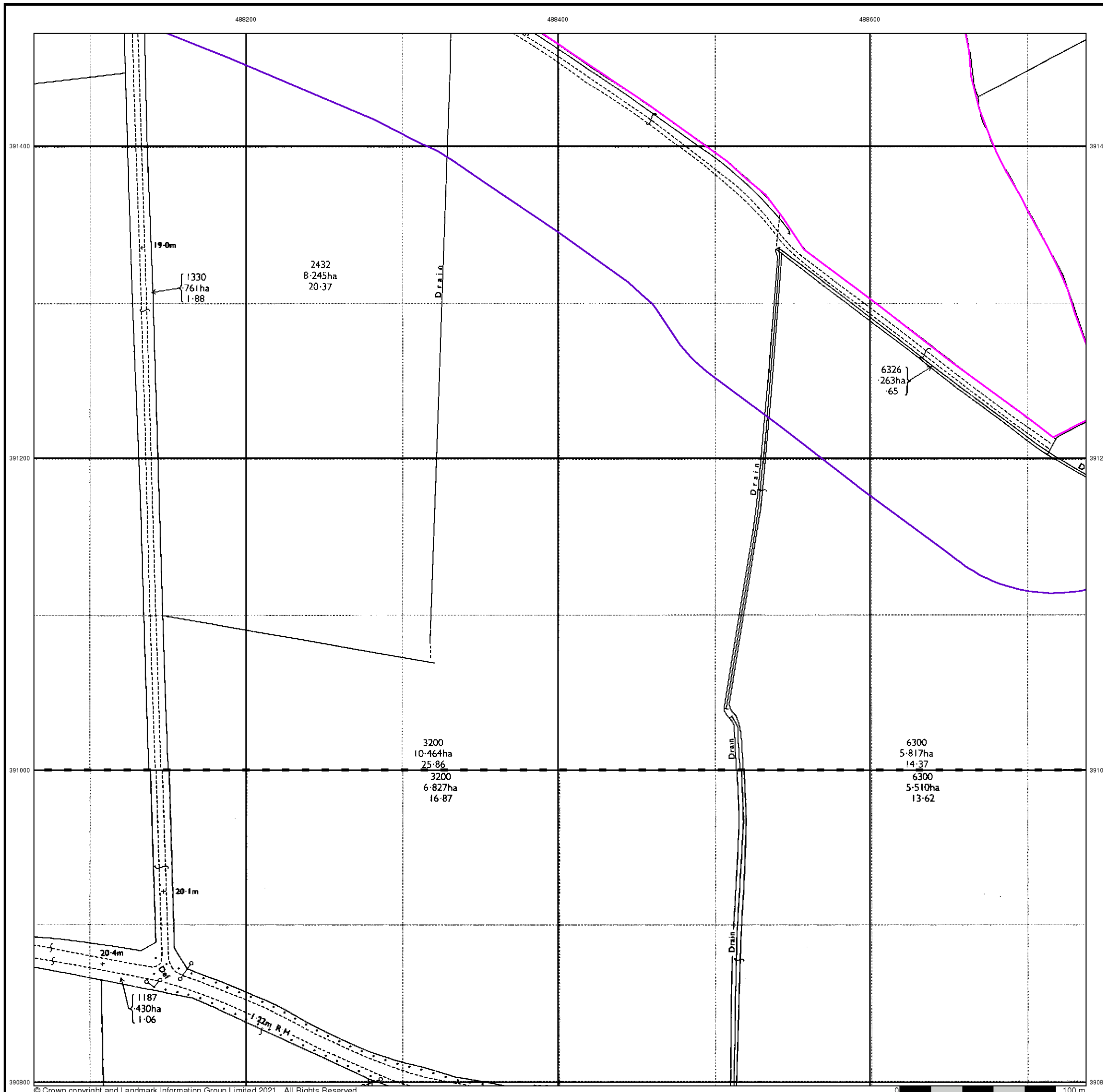


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Large-Scale National Grid Data

Published 1994

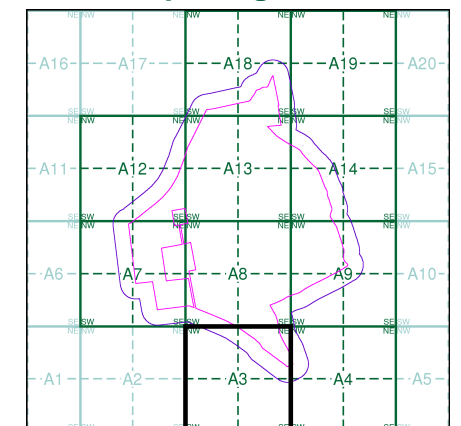
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8891	1994	1:2,500
SK8890	1994	1:2,500

Historical Map - Segment A3

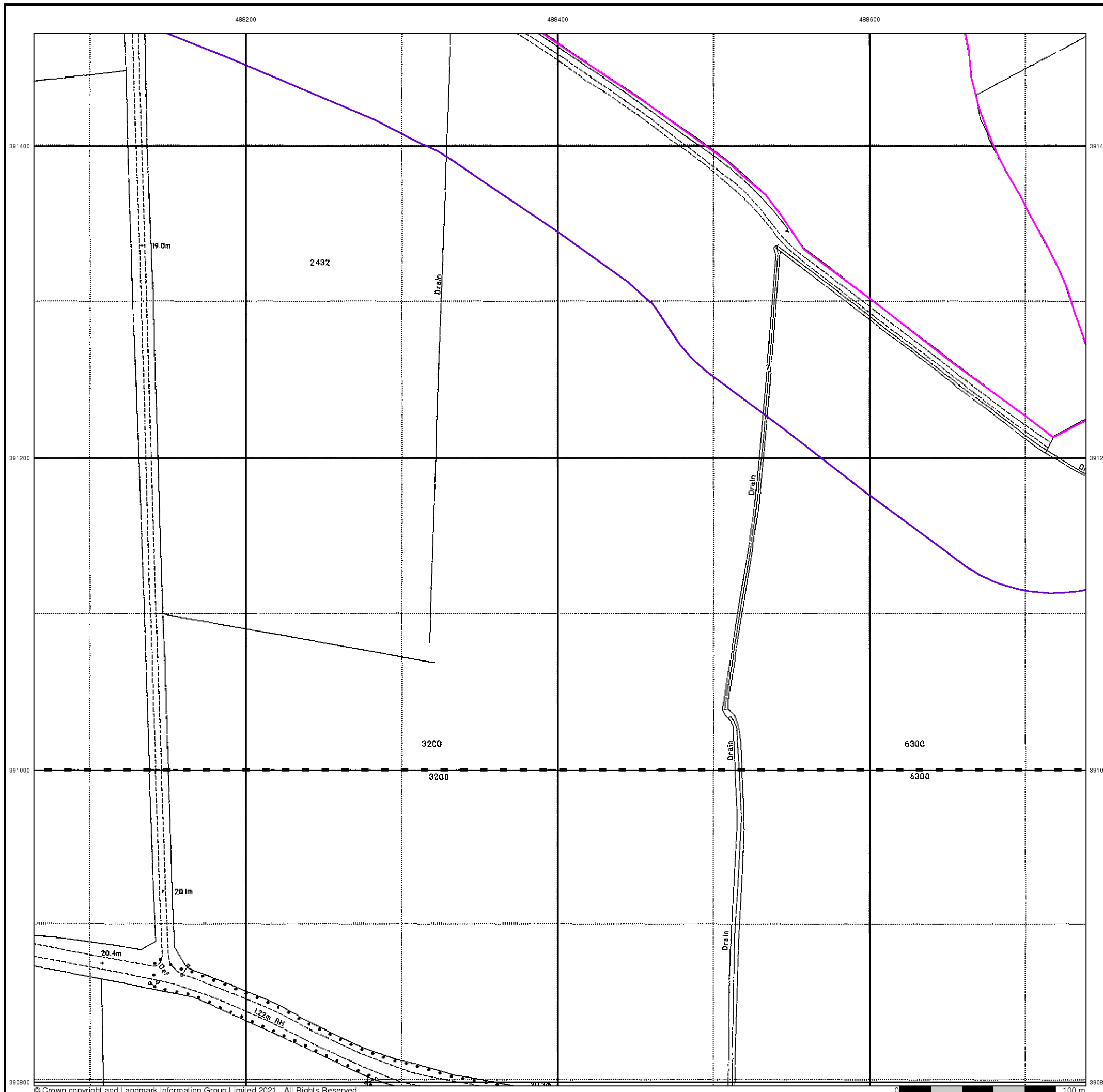


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



488200

488400

488600

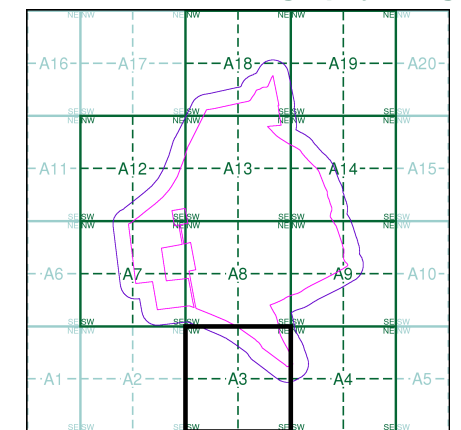


Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A3



Order Details

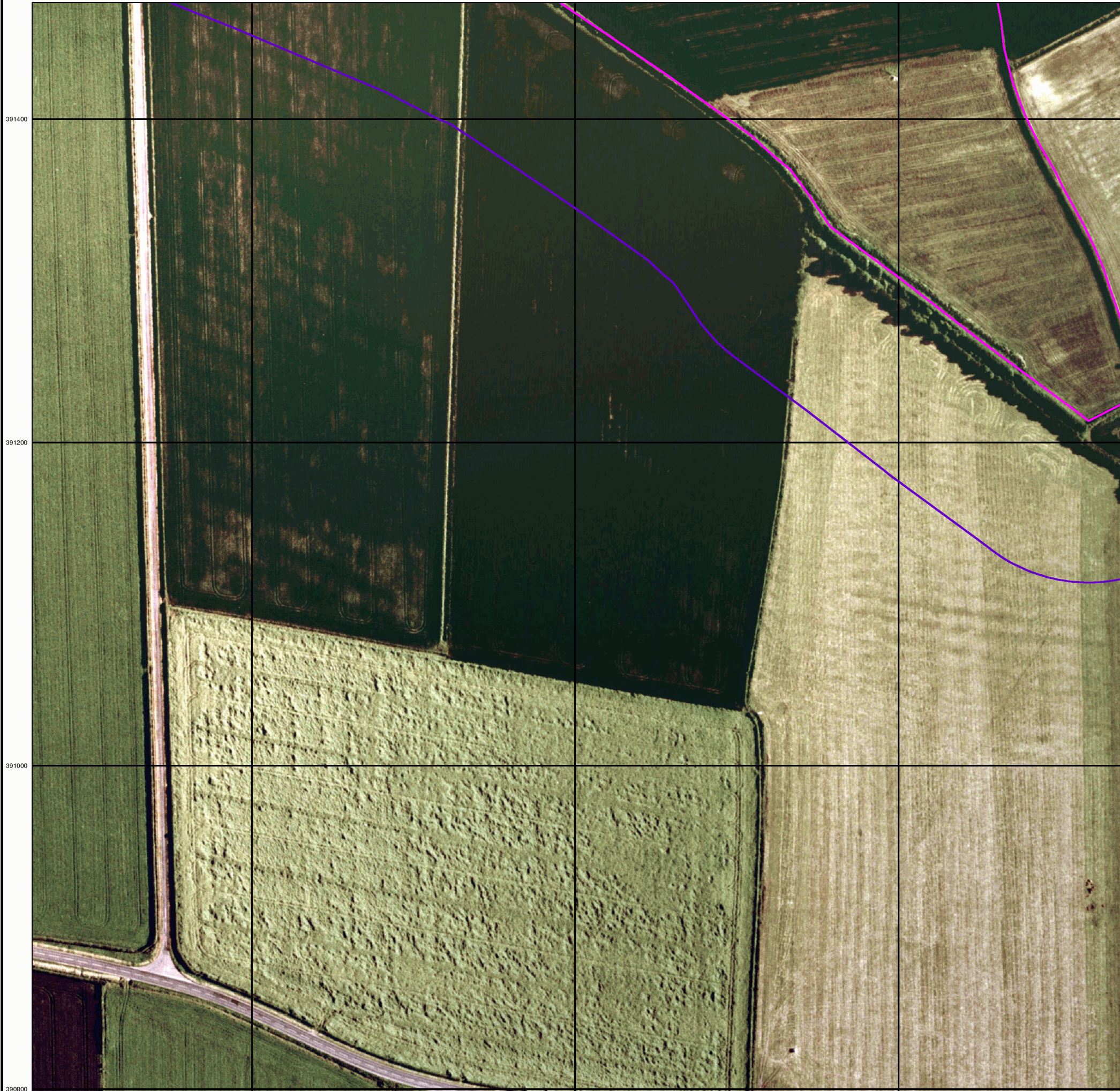
Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Tel: [redacted]
 Fax: [redacted]
 Web: [redacted]



391400

391400

391200

391200

391000

391000

390800

390800

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. **Bridle Road** **P** **Pump**
E.P. **Electricity Pylon** **S.P.** **Signal Post**
F.B. **Foot Bridge** **Sl.** **Sluice**
F.P. **Foot Path** **Sp.** **Spring**
G.P. **Guide Post or Board** **T.C.B.** **Telephone Call Box**
M.S. **Mile Stone** **Tr.** **Trough**
M.P. M.R. **Mooring Post or Ring** **W** **Well**

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH **Beer House** **P** **Pillar, Pole or Post**
BP, BS **Boundary Post or Stone** **PO** **Post Office**
Cn, C **Capstan, Crane** **PC** **Public Convenience**
Chy **Chimney** **PH** **Public House**
D Fn **Drinking Fountain** **Pp** **Pump**
EI P **Electricity Pillar or Post** **SB, S Br** **Signal Box or Bridge**
FAP **Fire Alarm Pillar** **SP, SL** **Signal Post or Light**
FB **Foot Bridge** **Spr** **Spring**
GP **Guide Post** **Tk** **Tank or Track**
H **Hydrant or Hydraulic** **TCB** **Telephone Call Box**
LC **Level Crossing** **TCP** **Telephone Call Post**
MH **Manhole** **Tr** **Trough**
MP **Mile Post or Mooring Post** **Wr Pt, Wr T** **Water Point, Water Tap**
MS **Mile Stone** **W** **Well**
NTL **Normal Tidal Limit** **Wd Pp** **Wind Pump**

Large-Scale National Grid Data 1:2,500 and 1:1,250

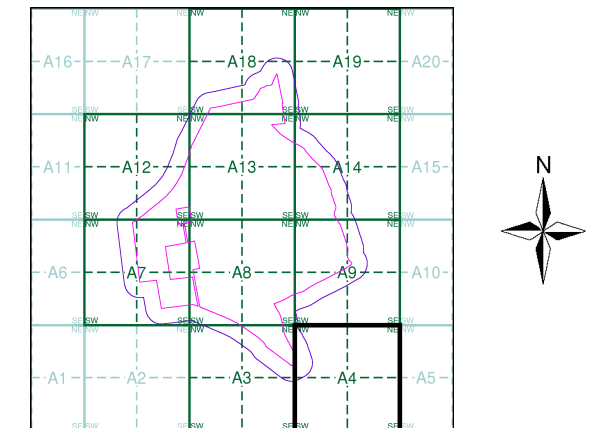
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m **Bench Mark** **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks **Barracks** **P** **Pillar, Pole or Post**
Bty **Battery** **PO** **Post Office**
Cemy **Cemetery** **PC** **Public Convenience**
Chy **Chimney** **Pp** **Pump**
Cis **Cistern** **Ppg Sta** **Pumping Station**
Dismtd Rly **Dismantled Railway** **PW** **Place of Worship**
EI Gen Sta **Electricity Generating Station** **Sewage Ppg Sta** **Sewage Pumping Station**
EI P **Electricity Pole, Pillar** **SB, S Br** **Signal Box or Bridge**
EI Sub Sta **Electricity Sub Station** **SP, SL** **Signal Post or Light**
FB **Filter Bed** **Spr** **Spring**
Fn / D Fn **Fountain / Drinking Ftn.** **Tk** **Tank or Track**
Gas Gov **Gas Valve Compound** **Tr** **Trough**
GVC **Gas Governor** **Wd Pp** **Wind Pump**
GP **Guide Post** **Wr Pt, Wr T** **Water Point, Water Tap**
MH **Manhole** **Wks** **Works (building or area)**
MP, MS **Mile Post or Mile Stone** **W** **Well**



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:2,500	1886	2
Lincolnshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1972	4
Large-Scale National Grid Data	1:2,500	1994	5
Large-Scale National Grid Data	1:2,500	1995	6
Historical Aerial Photography	1:2,500	1999	7

Historical Map - Segment A4



Order Details

Order Number: 287331185_1_1
Customer Ref: 21-1088.02
National Grid Reference: 488430, 392110
Slice: A
Site Area (Ha): 131.94
Search Buffer (m): 100

Site Details

Cottam 2



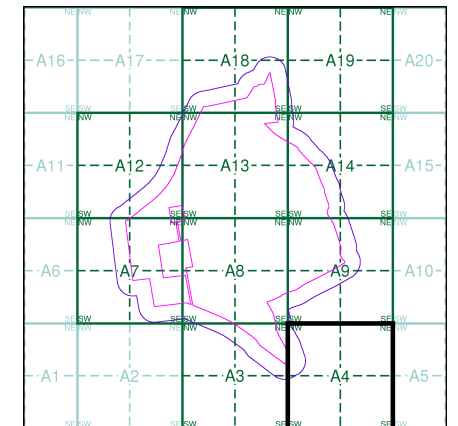
Tel: [Redacted]
Fax: [Redacted]
Web: [Redacted]

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

043_03	1886	1:2,500
043_07	1886	1:2,500

Historical Map - Segment A4

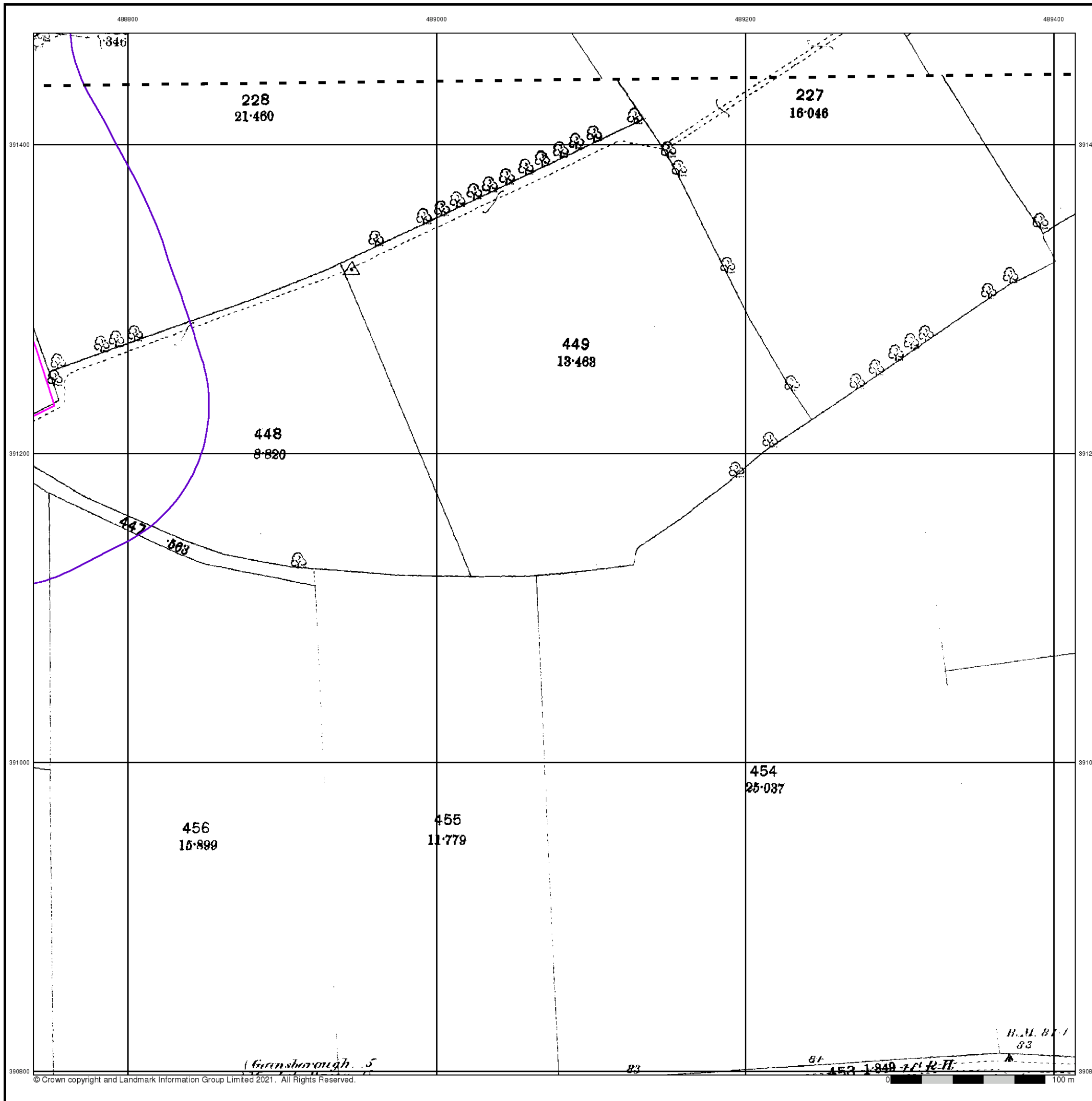


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Lincolnshire
Published 1906

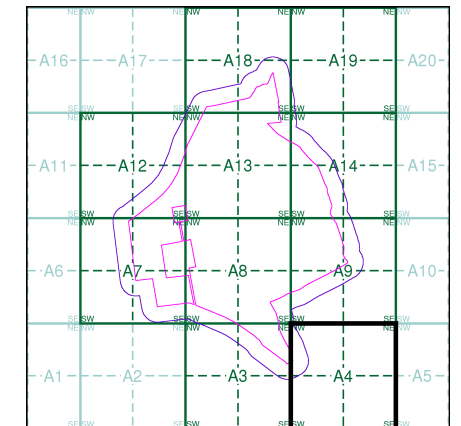
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

043_03	1906	1:2,500
043_07	1906	1:2,500

Historical Map - Segment A4

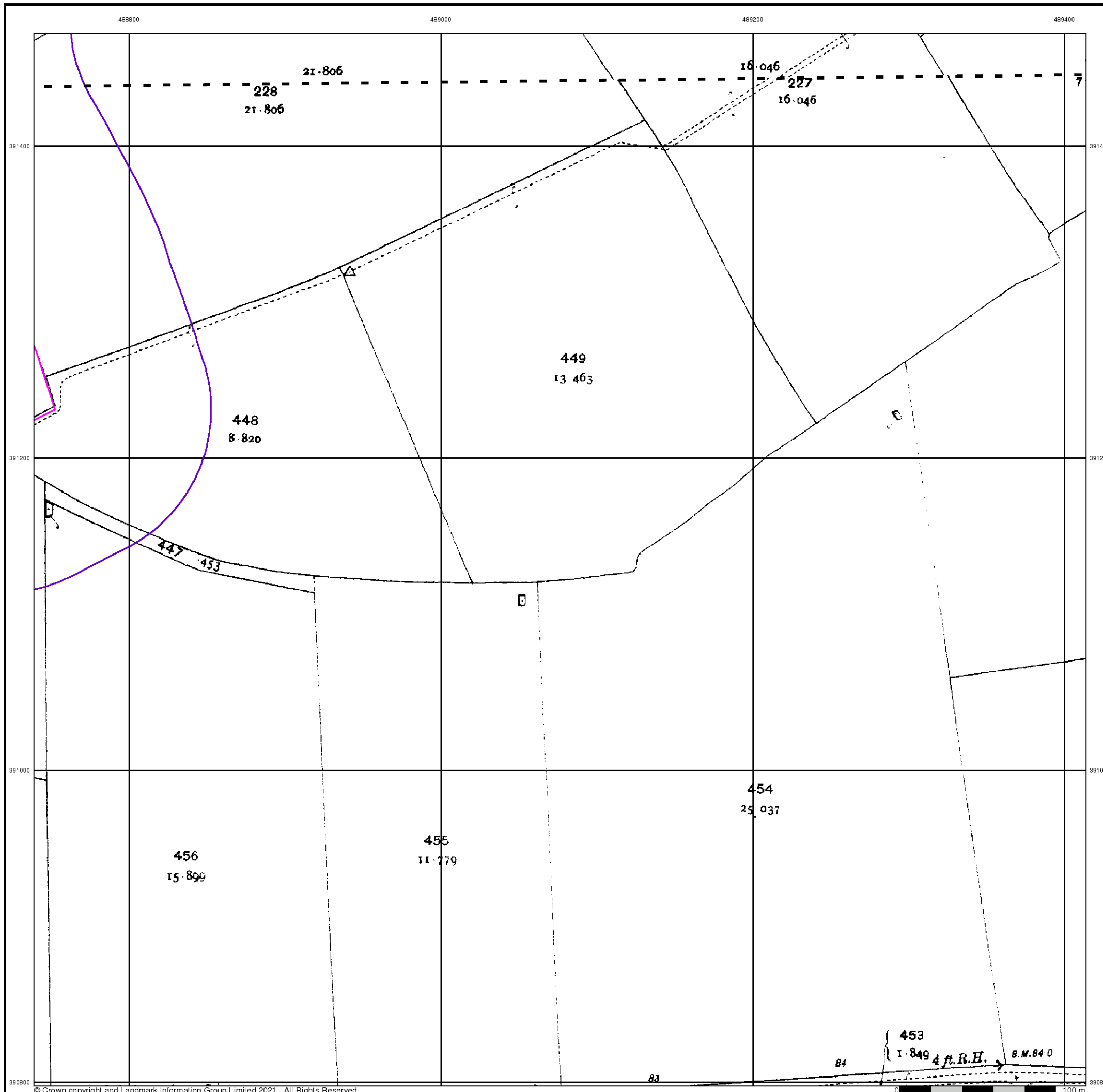


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Ordnance Survey Plan

Published 1972

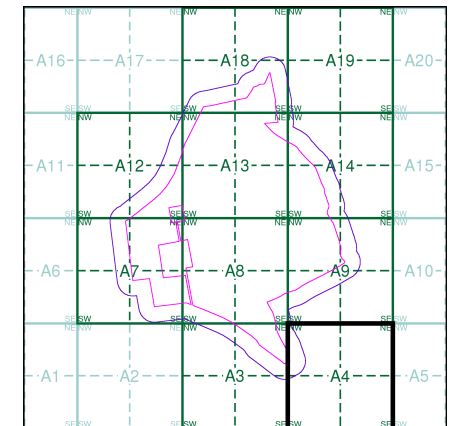
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SK8891 1972 1:2,500	SK8991 1972 1:2,500
SK8890 1972 1:2,500	SK8990 1972 1:2,500

Historical Map - Segment A4

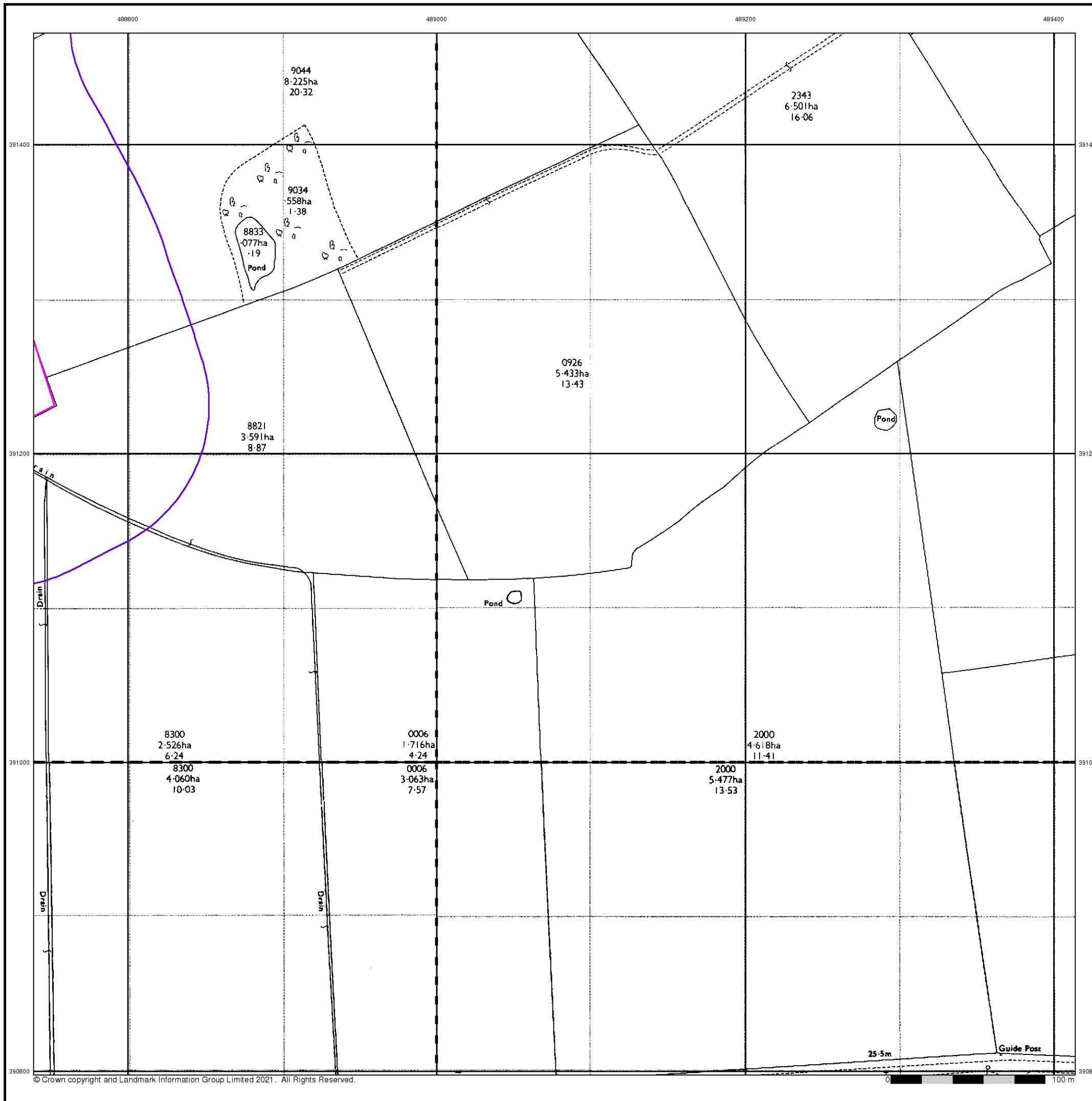


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Large-Scale National Grid Data

Published 1994

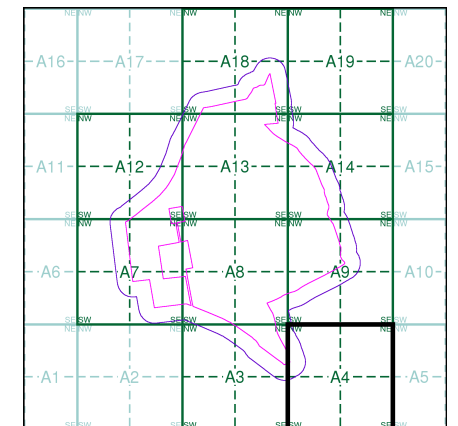
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8891 1994 1:2,500	SK8991 1994 1:2,500
SK8890 1994 1:2,500	SK8990 1994 1:2,500

Historical Map - Segment A4

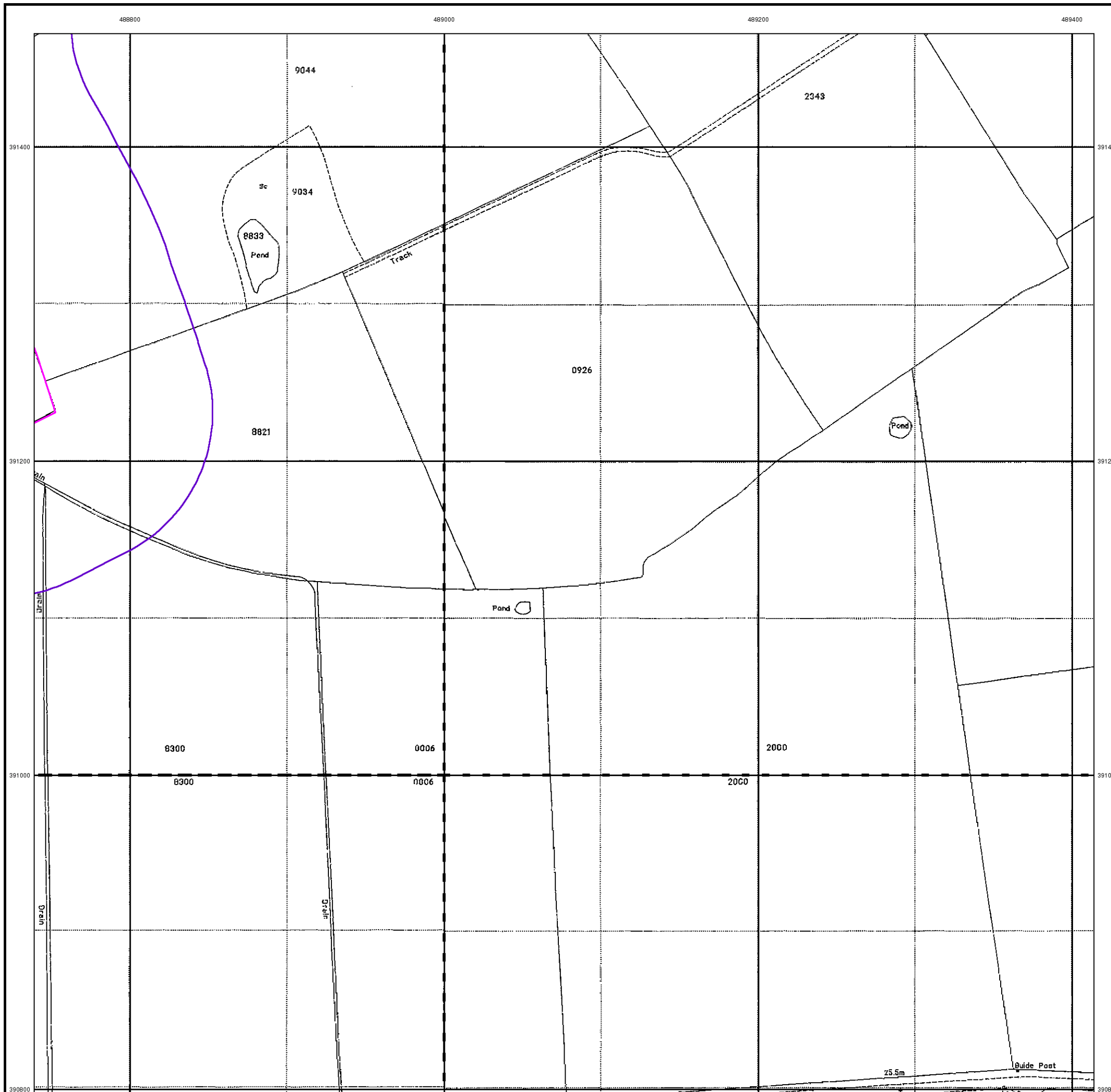


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2





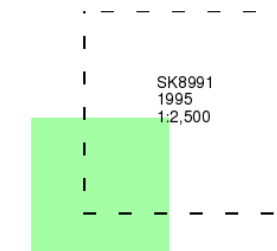
Large-Scale National Grid Data

Published 1995

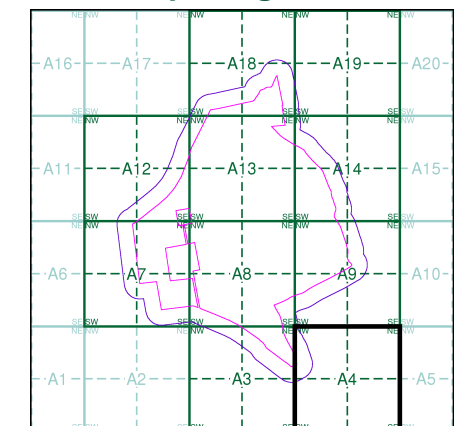
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A4



Order Details

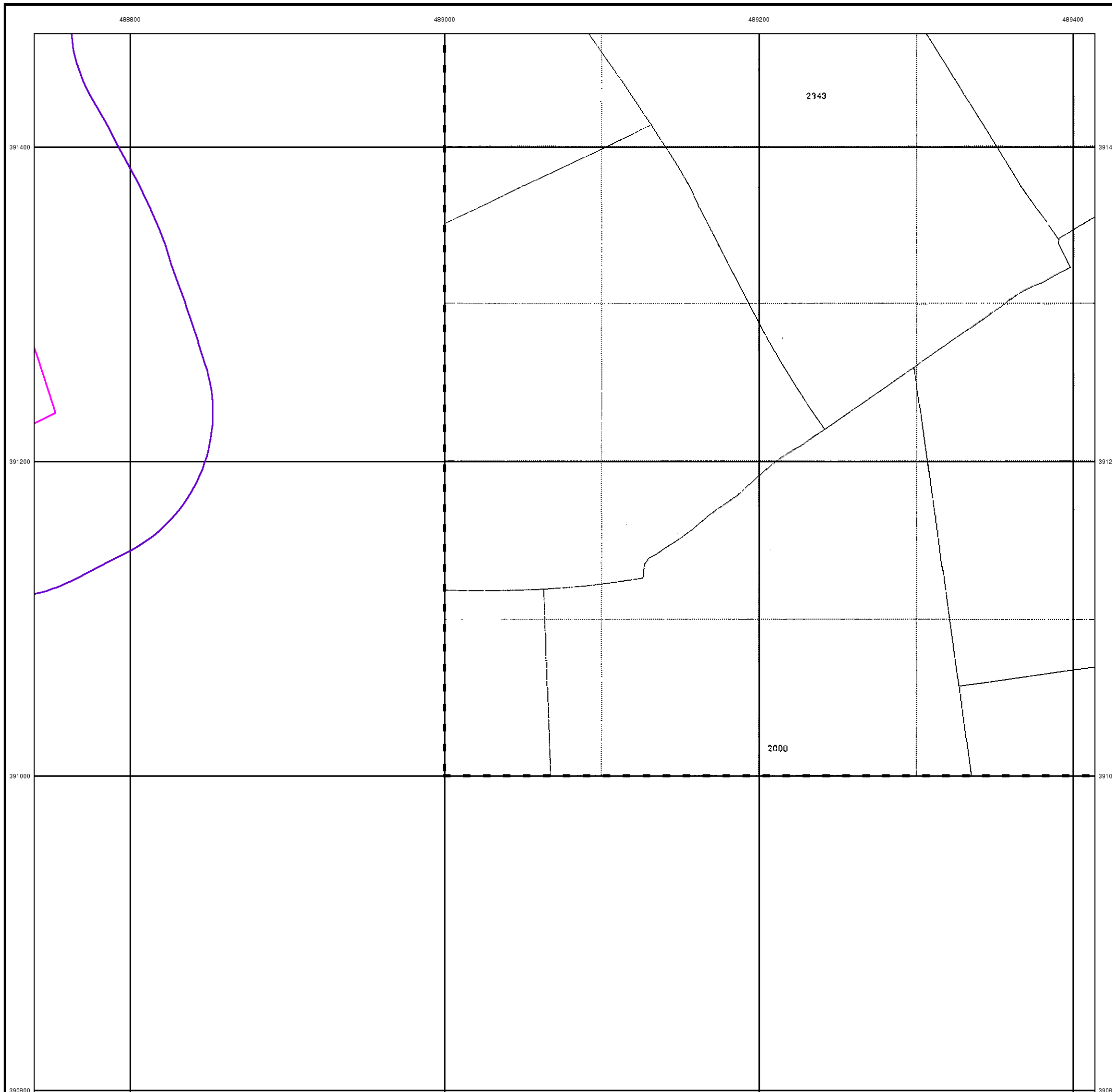
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Customer Ref: 21-1088.02
National Grid Reference: 488430, 392110
Slice: A
Site Area (Ha): 131.94
Search Buffer (m): 100

Site Details

Cottam 2



Tel: [redacted]
Fax: [redacted]
Web: [redacted]



488800

489000

489200

489400

391400

391400

391200

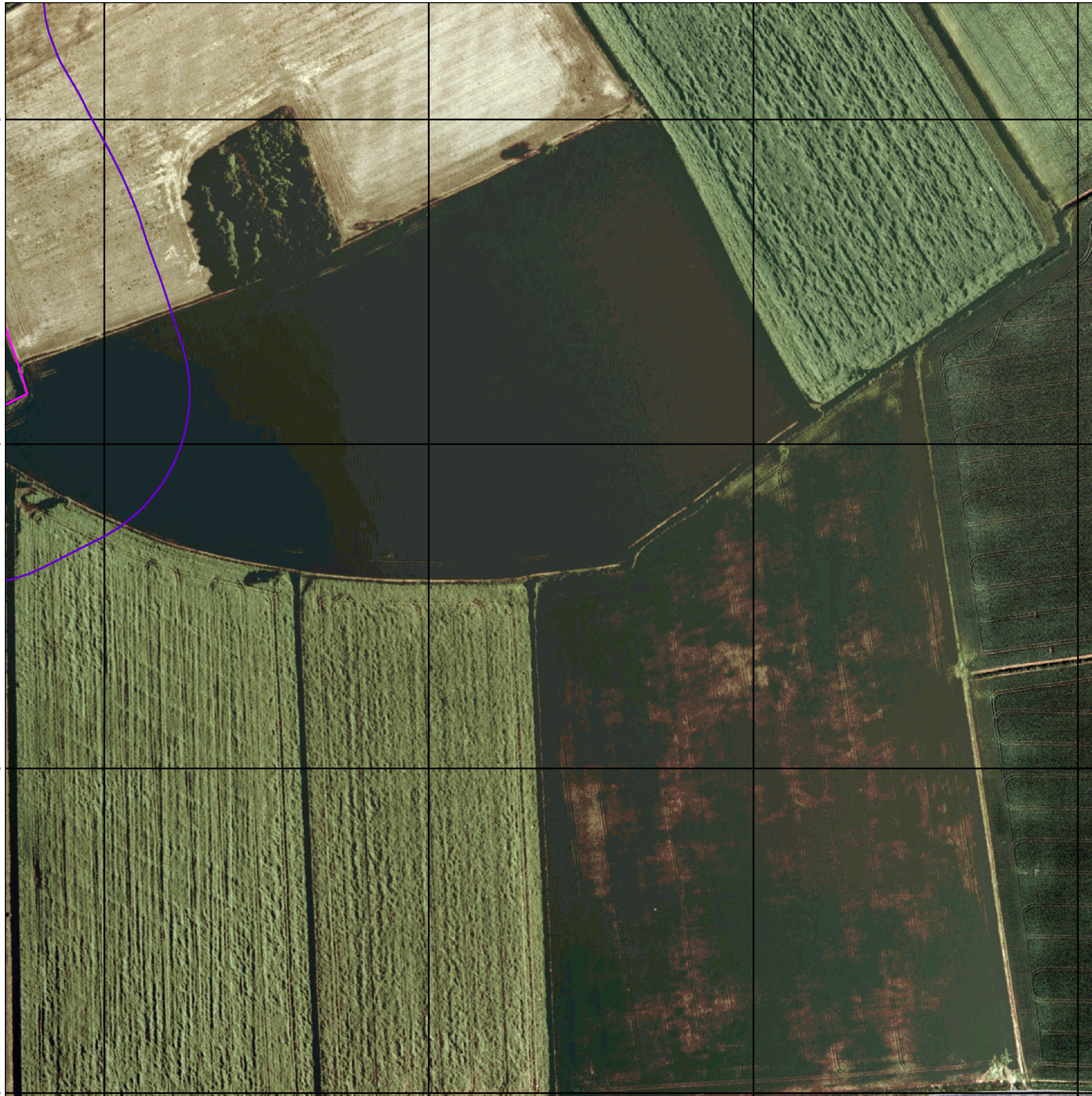
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391000

391000

390800

390800

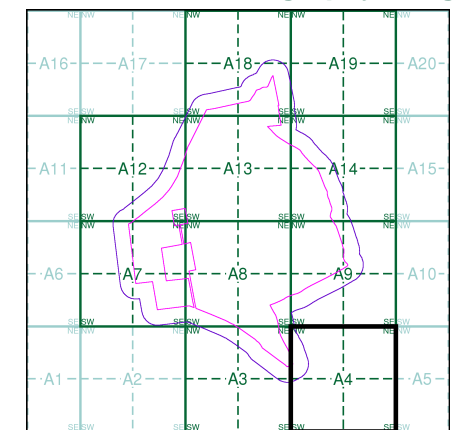


Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A4



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250

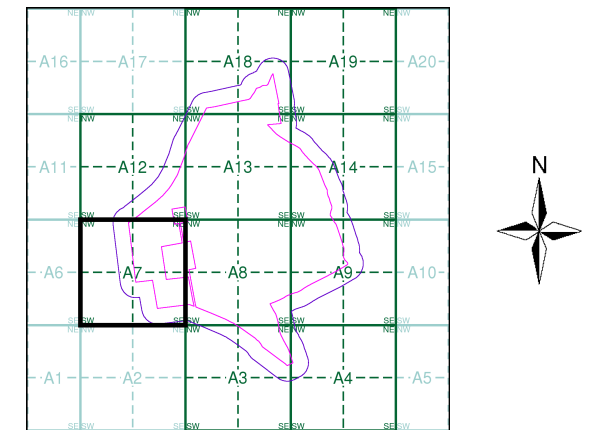
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:2,500	1886	2
Lincolnshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1972 - 1973	4
Large-Scale National Grid Data	1:2,500	1994	5
Historical Aerial Photography	1:2,500	1999	6

Historical Map - Segment A7



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



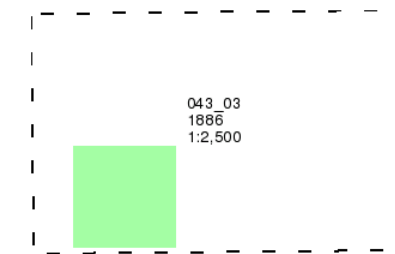
Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

Lincolnshire
Published 1886

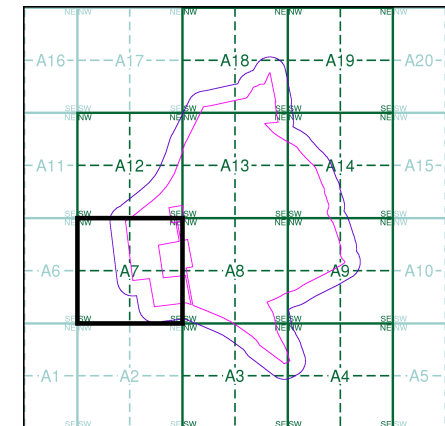
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A7

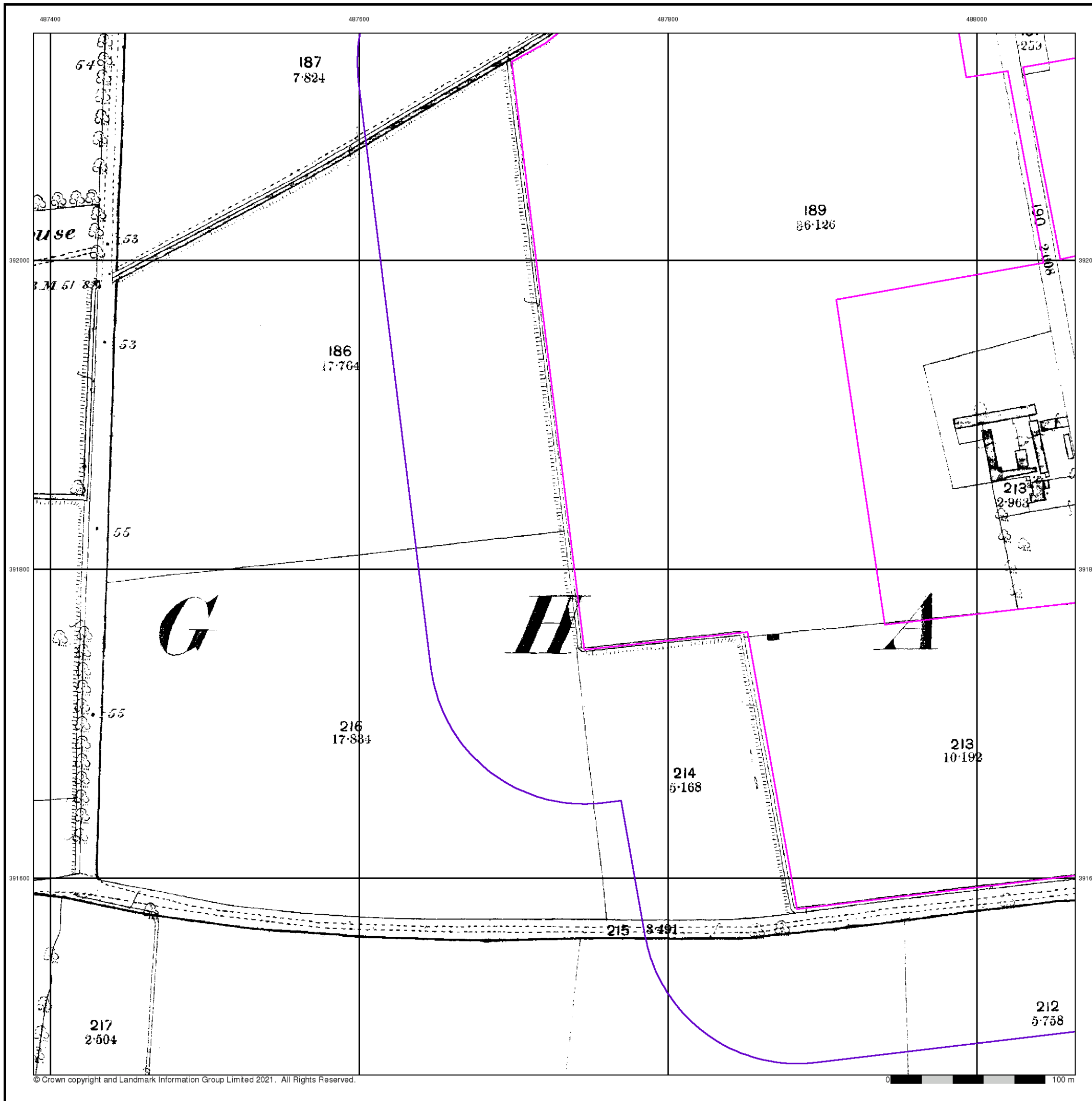


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



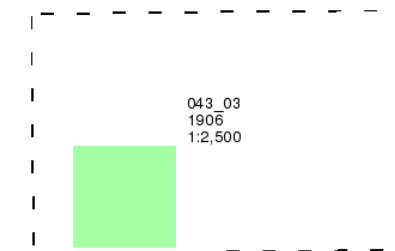
Lincolnshire

Published 1906

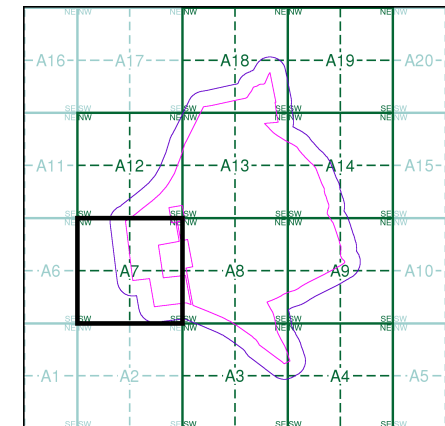
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A7

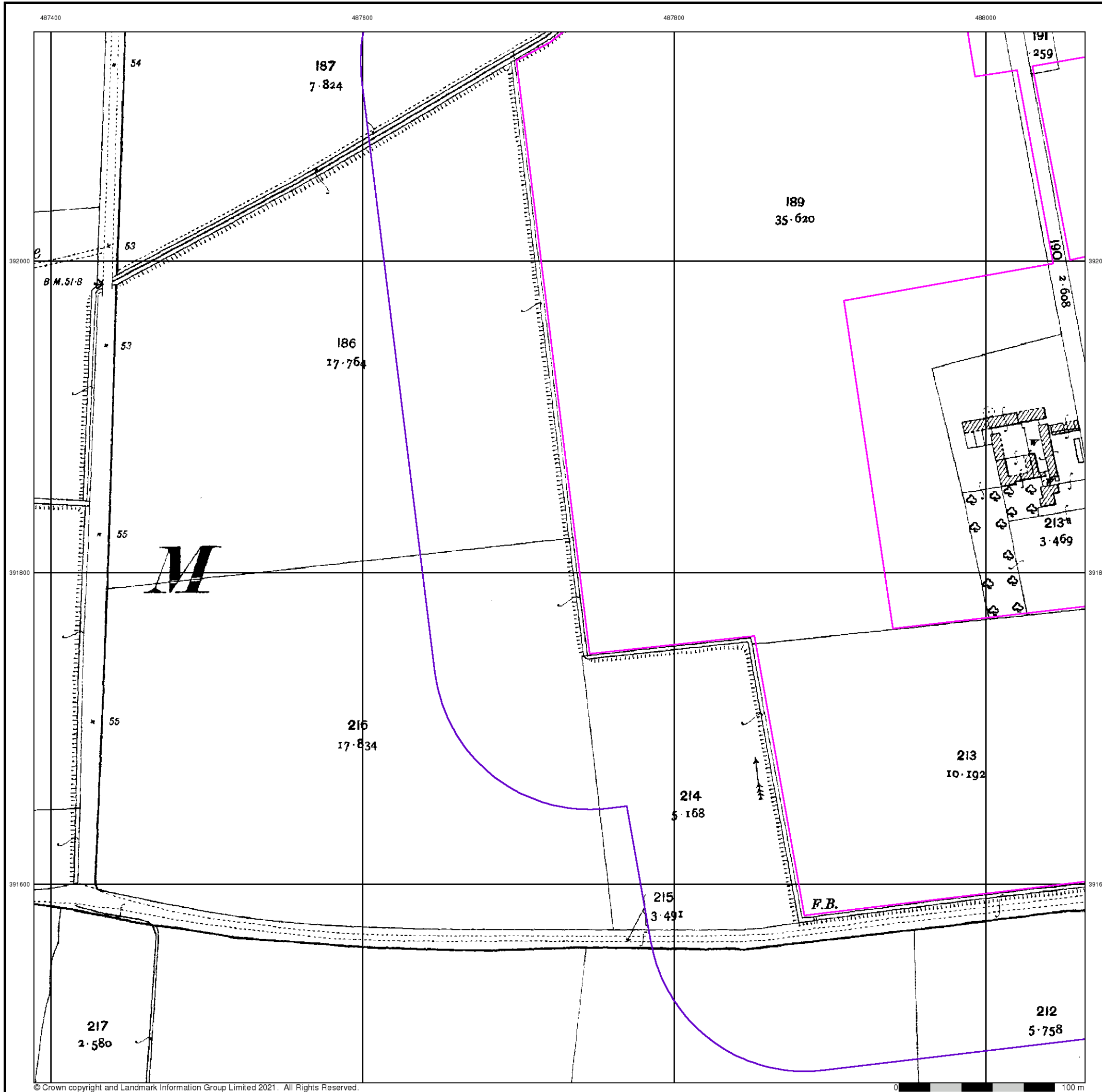


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Ordnance Survey Plan

Published 1972 - 1973

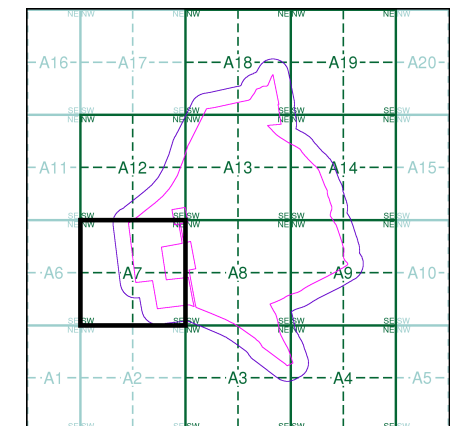
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SK8792 1972 1:2,500	SK8892 1972 1:2,500
SK8791 1973 1:2,500	SK8891 1972 1:2,500

Historical Map - Segment A7

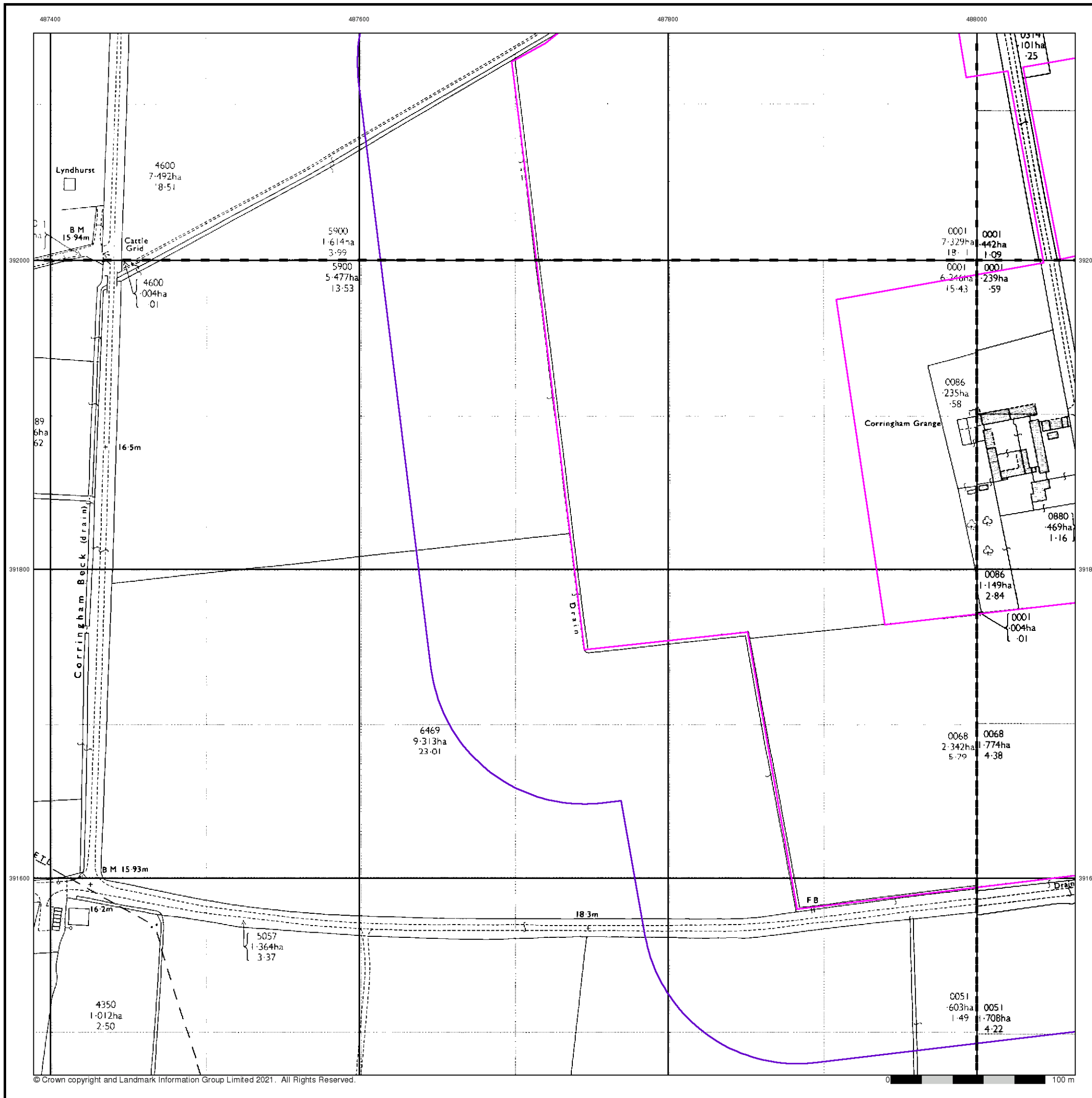


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2

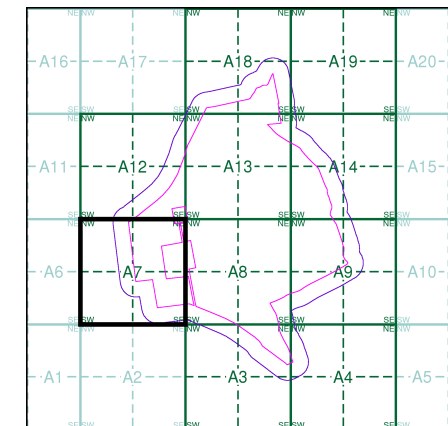


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8792 1994 1:2,500	SK8892 1994 1:2,500
SK8791 1994 1:2,500	SK8891 1994 1:2,500

Historical Map - Segment A7



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



487400

487600

487800

488000



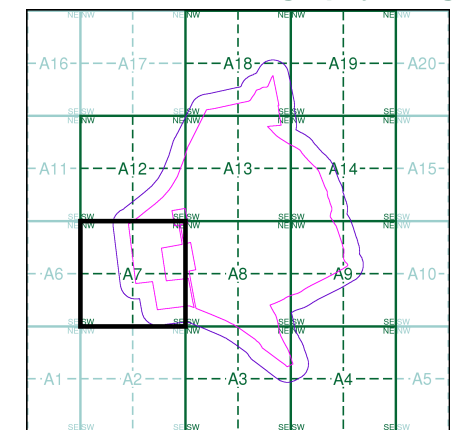
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain



Historical Aerial Photography - Segment A7



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sl. Sluice**
F.P. Foot Path **Sp. Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Tr. Trough**
M.P. M.R. Mooring Post or Ring **W. Well**

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P Pillar, Pole or Post**
BP, BS Boundary Post or Stone **PO Post Office**
Cn, C Capstan, Crane **PC Public Convenience**
Chy Chimney **PH Public House**
D Fn Drinking Fountain **Pp Pump**
EI P Electricity Pillar or Post **SB, S Br Signal Box or Bridge**
FAP Fire Alarm Pillar **SP, SL Signal Post or Light**
FB Foot Bridge **Spr Spring**
GP Guide Post **Tk Tank or Track**
H Hydrant or Hydraulic **TCB Telephone Call Box**
LC Level Crossing **TCP Telephone Call Post**
MH Manhole **Tr Trough**
MP Mile Post or Mooring Post **Wr Pt, Wr T Water Point, Water Tap**
MS Mile Stone **W Well**
NTL Normal Tidal Limit **Wd Pp Wind Pump**

Large-Scale National Grid Data 1:2,500 and 1:1,250

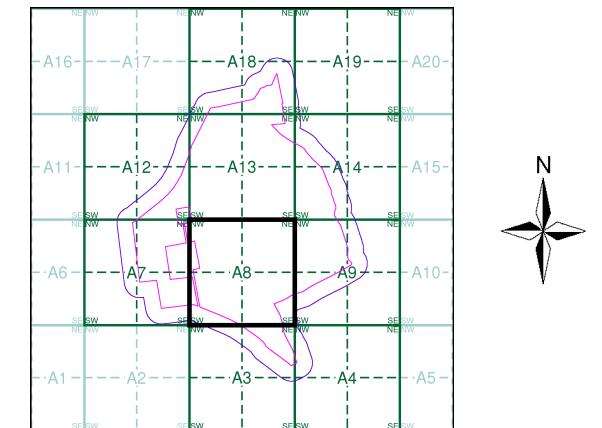
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P Pillar, Pole or Post**
Bty Battery **PO Post Office**
Cemy Cemetery **PC Public Convenience**
Chy Chimney **Pp Pump**
Cis Cistern **Ppg Sta Pumping Station**
Dismtd Rly Dismantled Railway **PW Place of Worship**
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta Sewage Pumping Station**
EI P Electricity Pole, Pillar **SB, S Br Signal Box or Bridge**
EI Sub Sta Electricity Sub Station **SP, SL Signal Post or Light**
FB Filter Bed **Spr Spring**
Fn / D Fn Fountain / Drinking Ftn. **Tk Tank or Track**
Gas Gov Gas Valve Compound **Tr Trough**
GVC Gas Governor **Wd Pp Wind Pump**
GP Guide Post **Wr Pt, Wr T Water Point, Water Tap**
MH Manhole **Wks Works (building or area)**
MP, MS Mile Post or Mile Stone **W Well**



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:2,500	1886	2
Lincolnshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1972	4
Large-Scale National Grid Data	1:2,500	1994	5
Historical Aerial Photography	1:2,500	1999	6

Historical Map - Segment A8



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

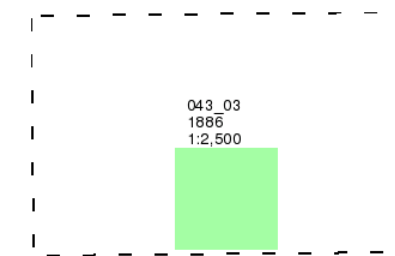
Lincolnshire

Published 1886

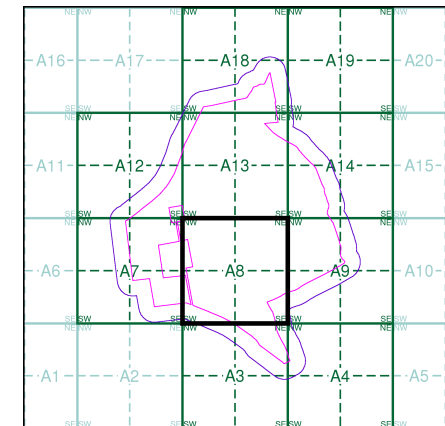
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A8

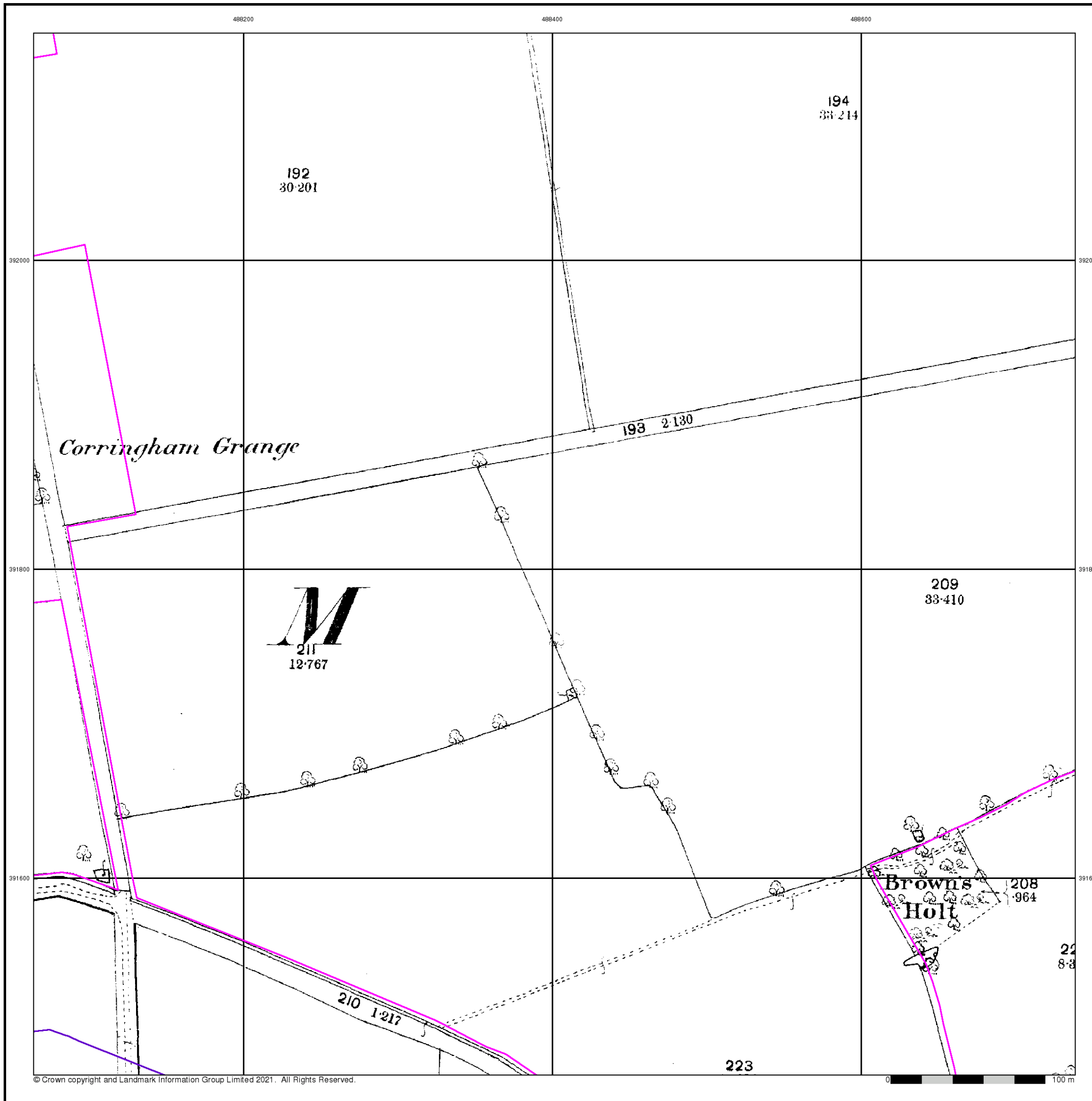


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



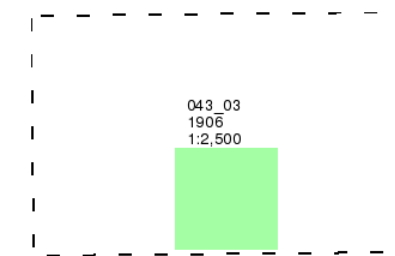
Lincolnshire

Published 1906

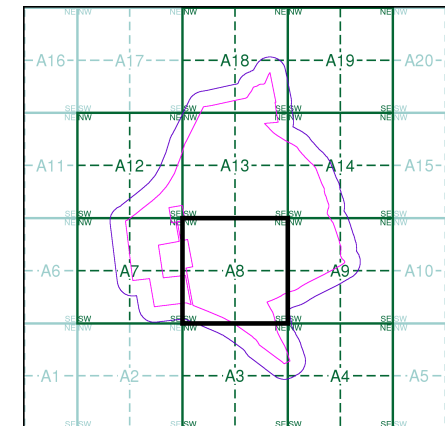
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A8

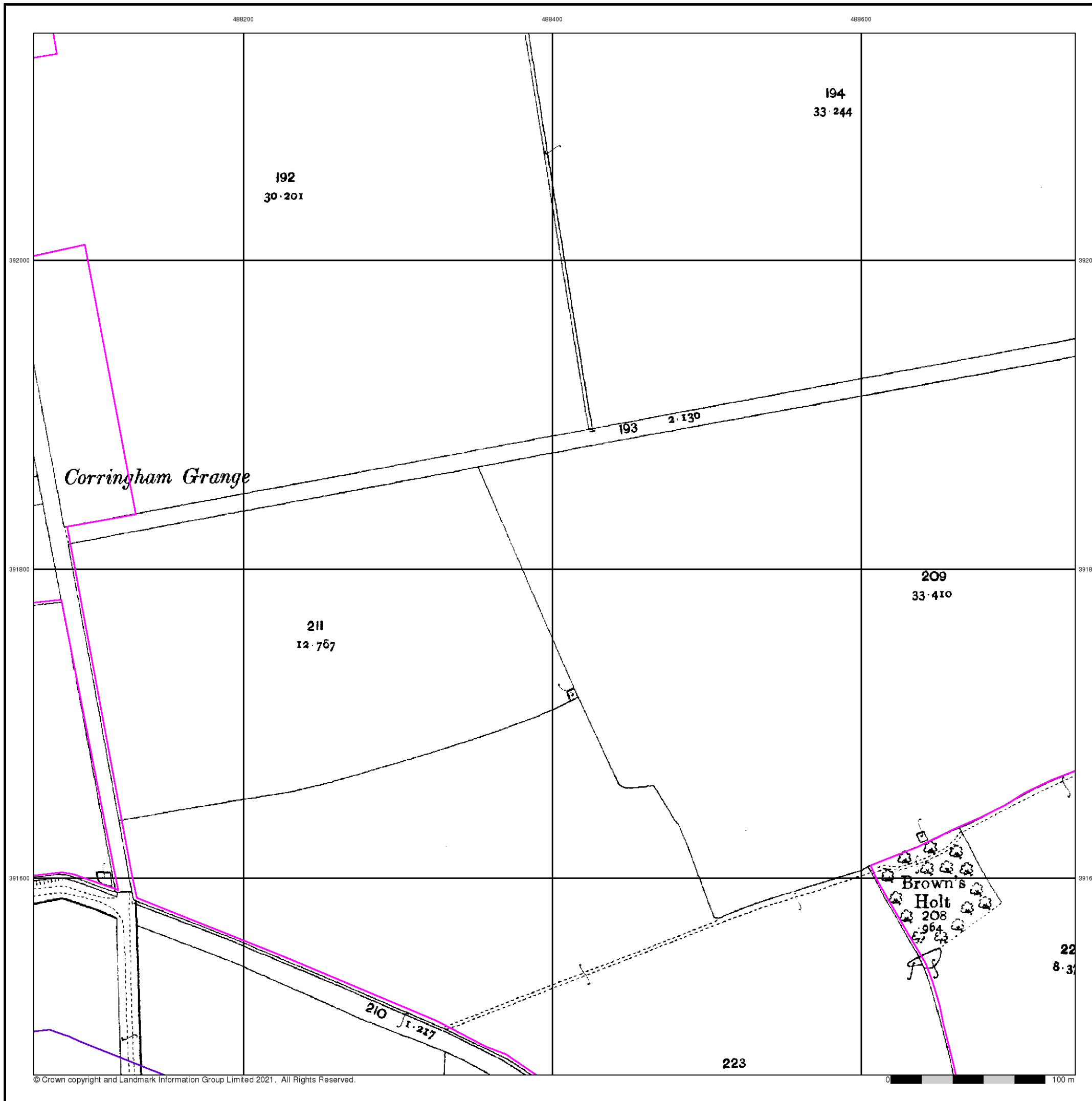


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Ordnance Survey Plan

Published 1972

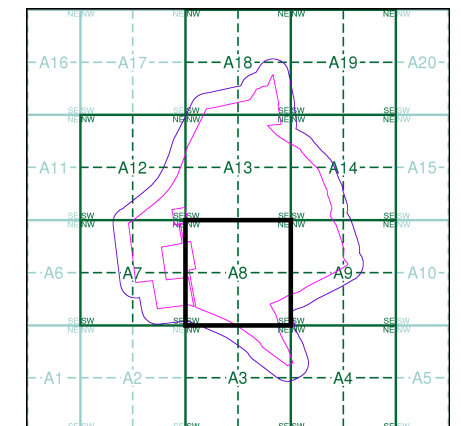
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SK8892	1972	1:2,500
SK8891	1972	1:2,500

Historical Map - Segment A8

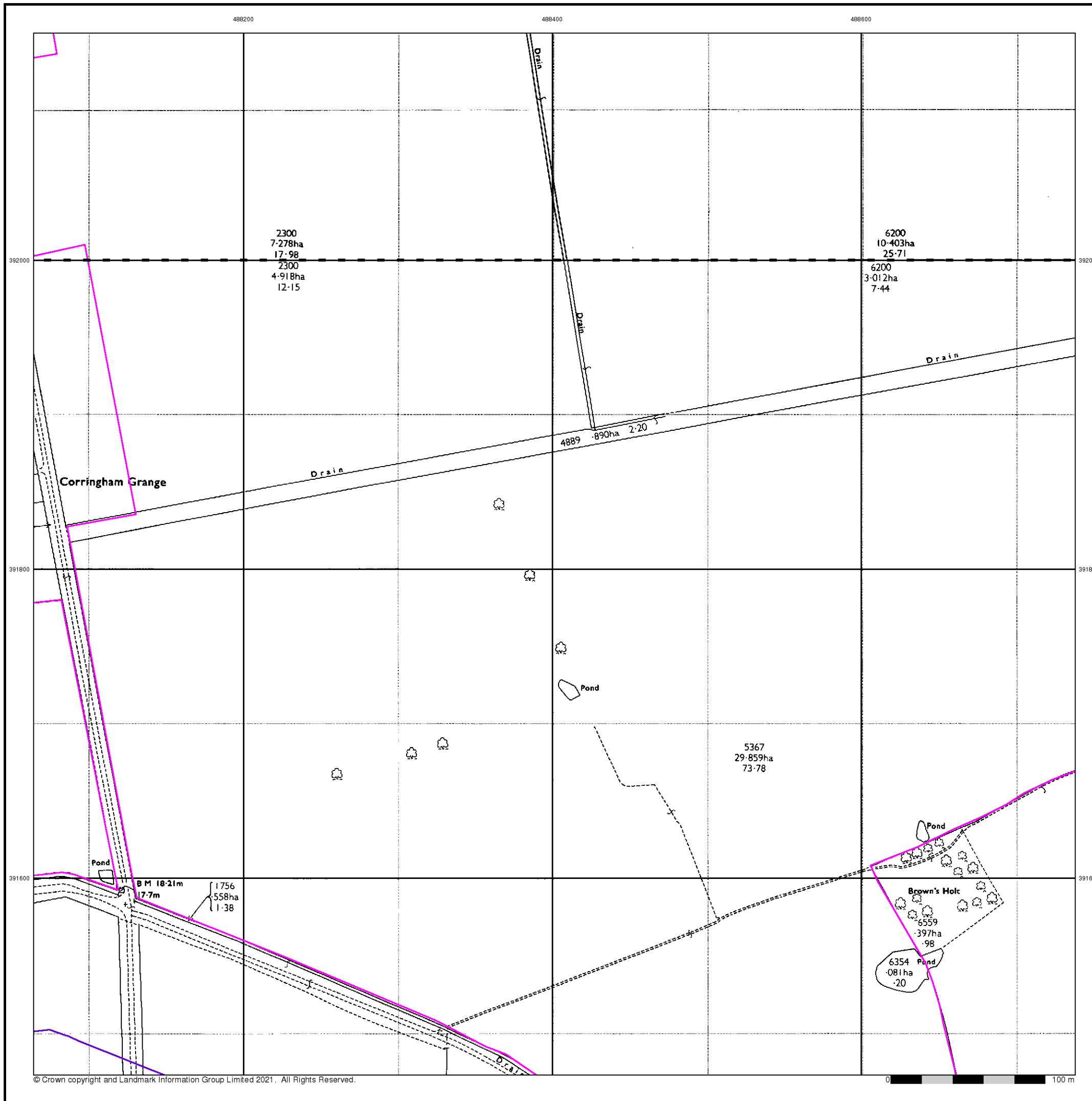


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Large-Scale National Grid Data

Published 1994

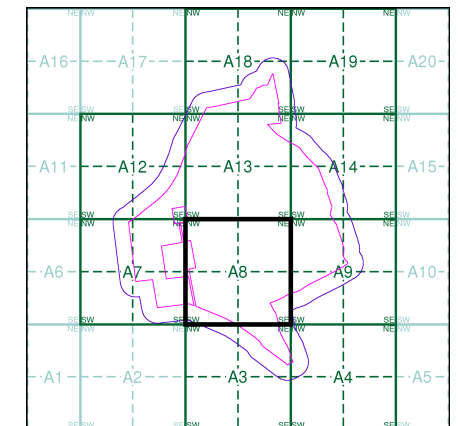
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8892	1994	1:2,500
SK8891	1994	1:2,500

Historical Map - Segment A8

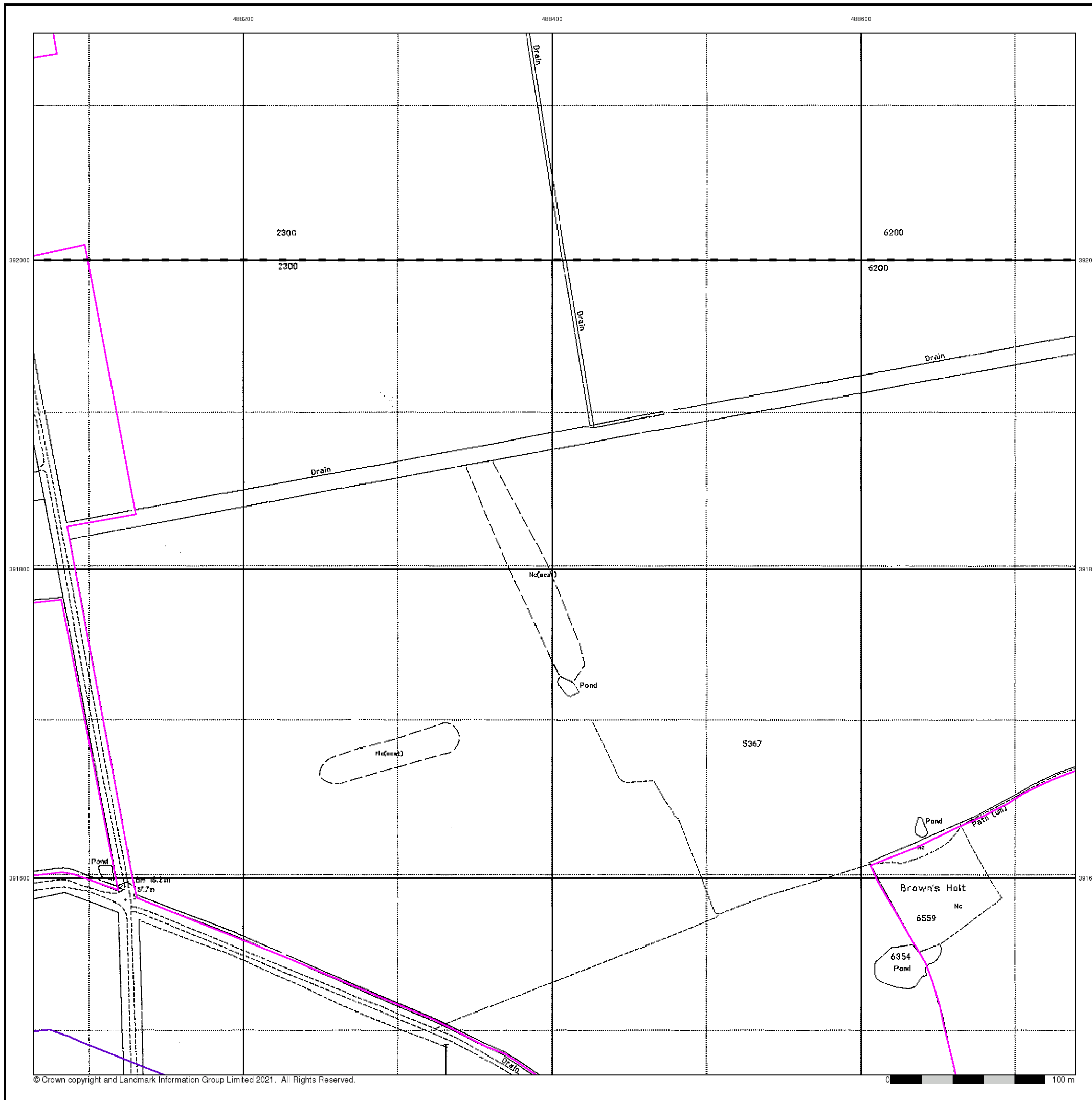


Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



488200

488400

488600

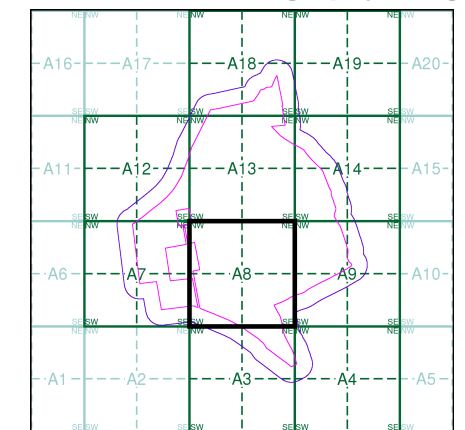


Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A8



Order Details

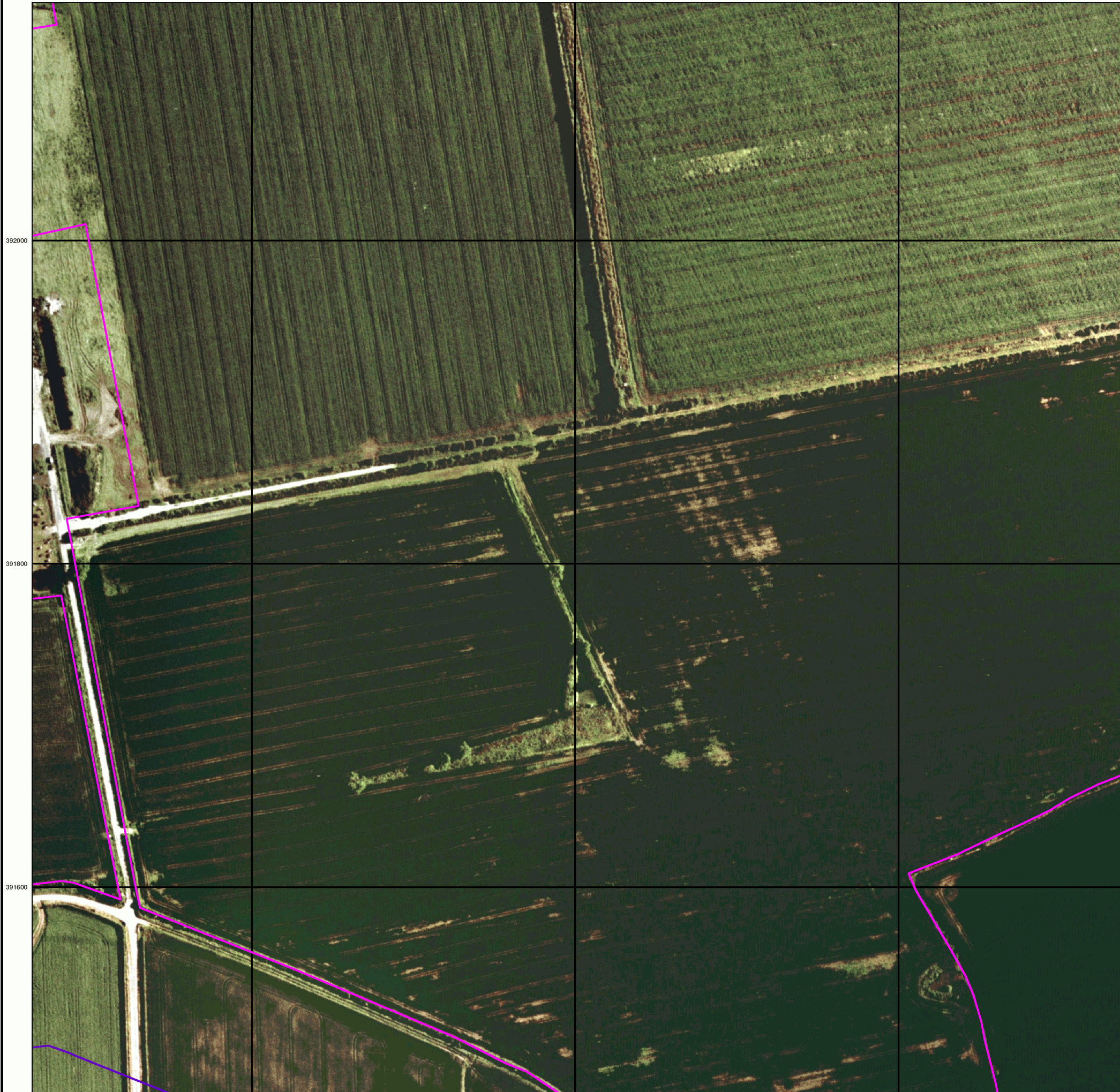
Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]



Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **P Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sl. Sluice**
F.P. Foot Path **Sp. Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Tr. Trough**
M.P. M.R. Mooring Post or Ring **W Well**

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P Pillar, Pole or Post**
BP, BS Boundary Post or Stone **PO Post Office**
Cn, C Capstan, Crane **PC Public Convenience**
Chy Chimney **PH Public House**
D Fn Drinking Fountain **Pp Pump**
EI P Electricity Pillar or Post **SB, S Br Signal Box or Bridge**
FAP Fire Alarm Pillar **SP, SL Signal Post or Light**
FB Foot Bridge **Spr Spring**
GP Guide Post **Tk Tank or Track**
H Hydrant or Hydraulic **TCB Telephone Call Box**
LC Level Crossing **TCP Telephone Call Post**
MH Manhole **Tr Trough**
MP Mile Post or Mooring Post **Wr Pt, Wr T Water Point, Water Tap**
MS Mile Stone **W Well**
NTL Normal Tidal Limit **Wd Pp Wind Pump**

Large-Scale National Grid Data 1:2,500 and 1:1,250

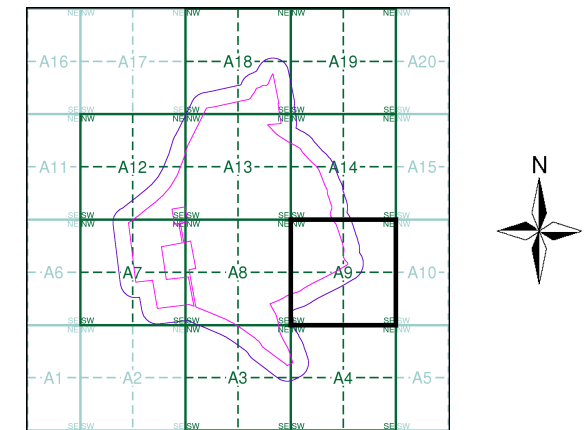
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P Pillar, Pole or Post**
Bty Battery **PO Post Office**
Cemy Cemetery **PC Public Convenience**
Chy Chimney **Pp Pump**
Cis Cistern **Ppg Sta Pumping Station**
Dismtd Rly Dismantled Railway **PW Place of Worship**
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta Sewage Pumping Station**
EI P Electricity Pole, Pillar **SB, S Br Signal Box or Bridge**
EI Sub Sta Electricity Sub Station **SP, SL Signal Post or Light**
FB Filter Bed **Spr Spring**
Fn / D Fn Fountain / Drinking Ftn. **Tk Tank or Track**
Gas Gov Gas Valve Compound **Tr Trough**
GVC Gas Governor **Wd Pp Wind Pump**
GP Guide Post **Wr Pt, Wr T Water Point, Water Tap**
MH Manhole **Wks Works (building or area)**
MP, MS Mile Post or Mile Stone **W Well**



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lincolnshire	1:2,500	1886	2
Lincolnshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1972	4
Large-Scale National Grid Data	1:2,500	1994	5
Large-Scale National Grid Data	1:2,500	1995	6
Historical Aerial Photography	1:2,500	1999	7

Historical Map - Segment A9



Order Details

Order Number: 287331185_1_1
 Customer Ref: 21-1088.02
 National Grid Reference: 488430, 392110
 Slice: A
 Site Area (Ha): 131.94
 Search Buffer (m): 100

Site Details

Cottam 2



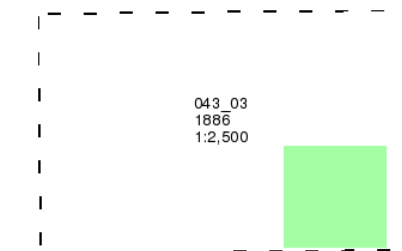
Tel: [Redacted]
 Fax: [Redacted]
 Web: [Redacted]

Lincolnshire
Published 1886

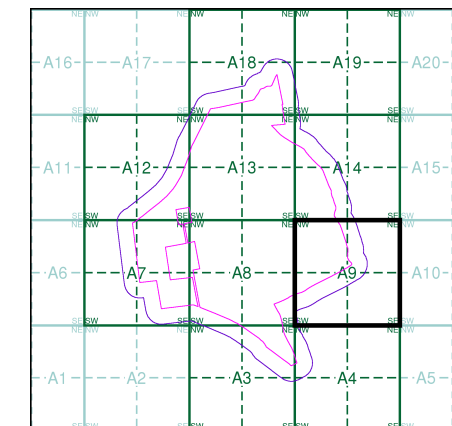
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A9

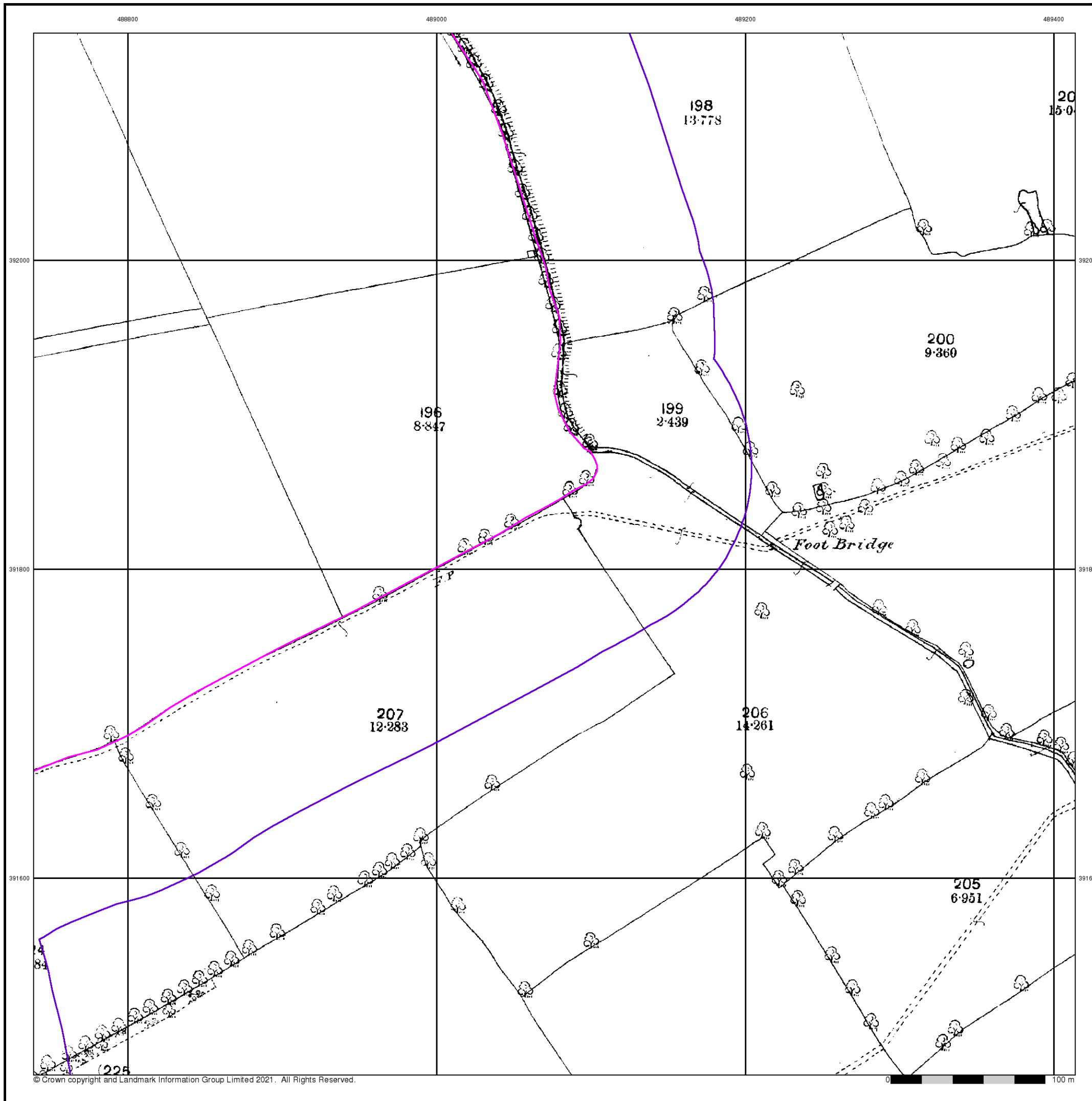


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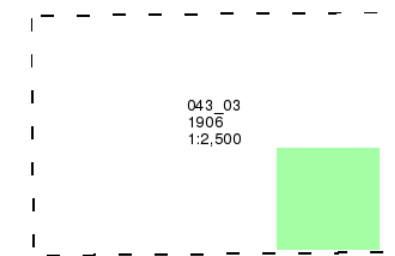


Lincolnshire
Published 1906

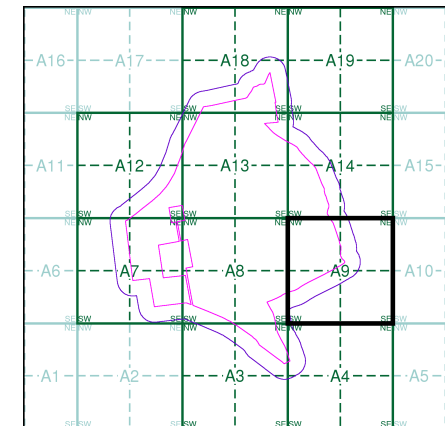
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A9

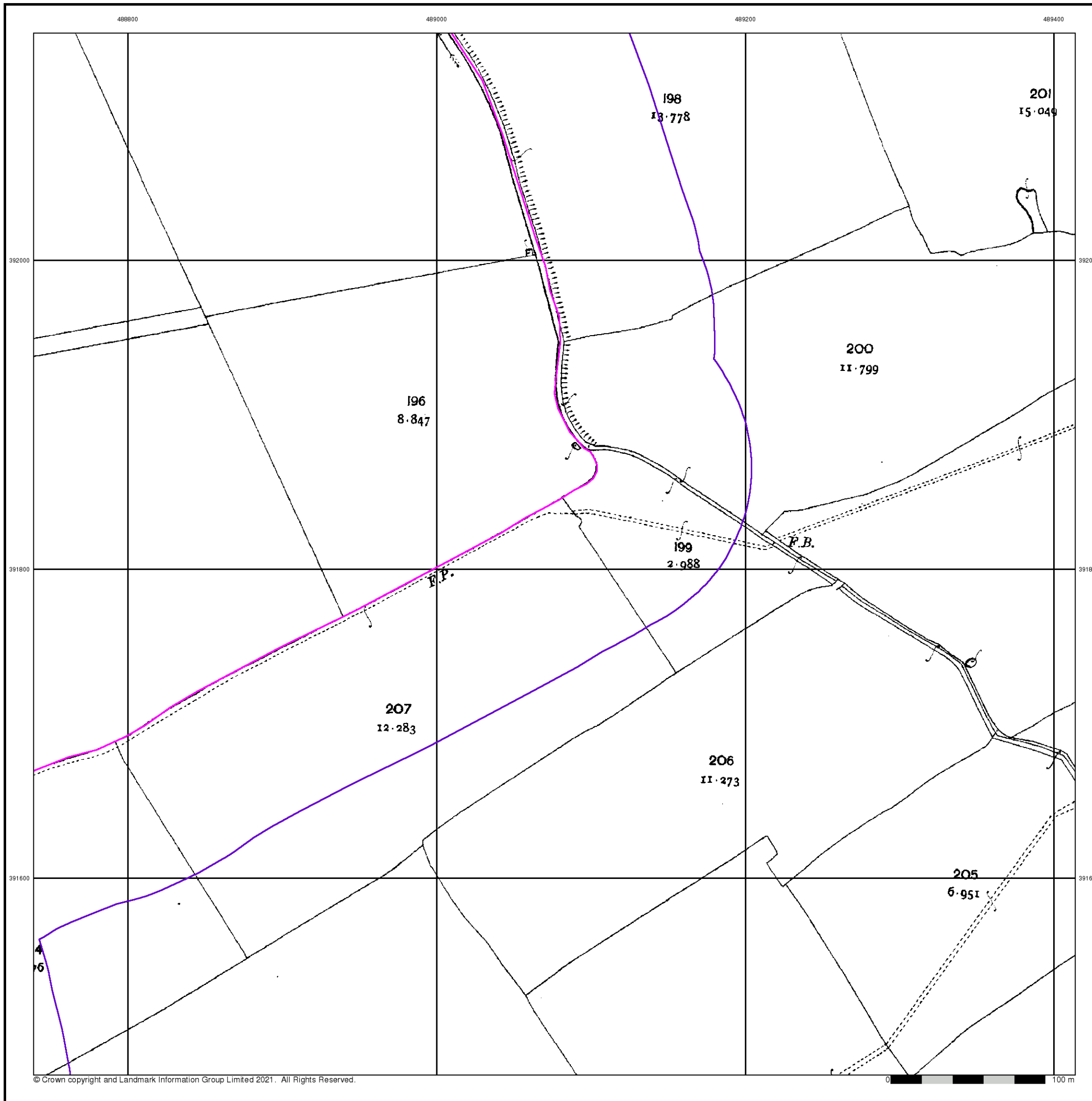


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Cottam 2



Ordnance Survey Plan

Published 1972

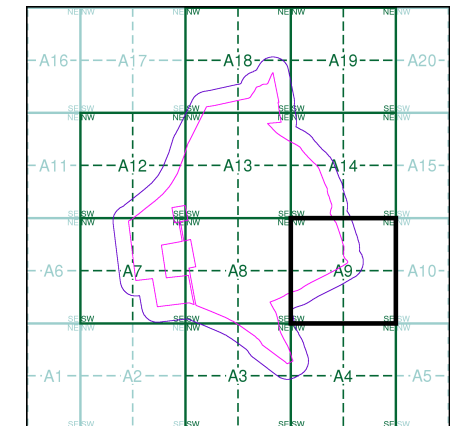
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SK8892 1972 1:2,500	SK8992 1972 1:2,500
SK8891 1972 1:2,500	SK8991 1972 1:2,500

Historical Map - Segment A9

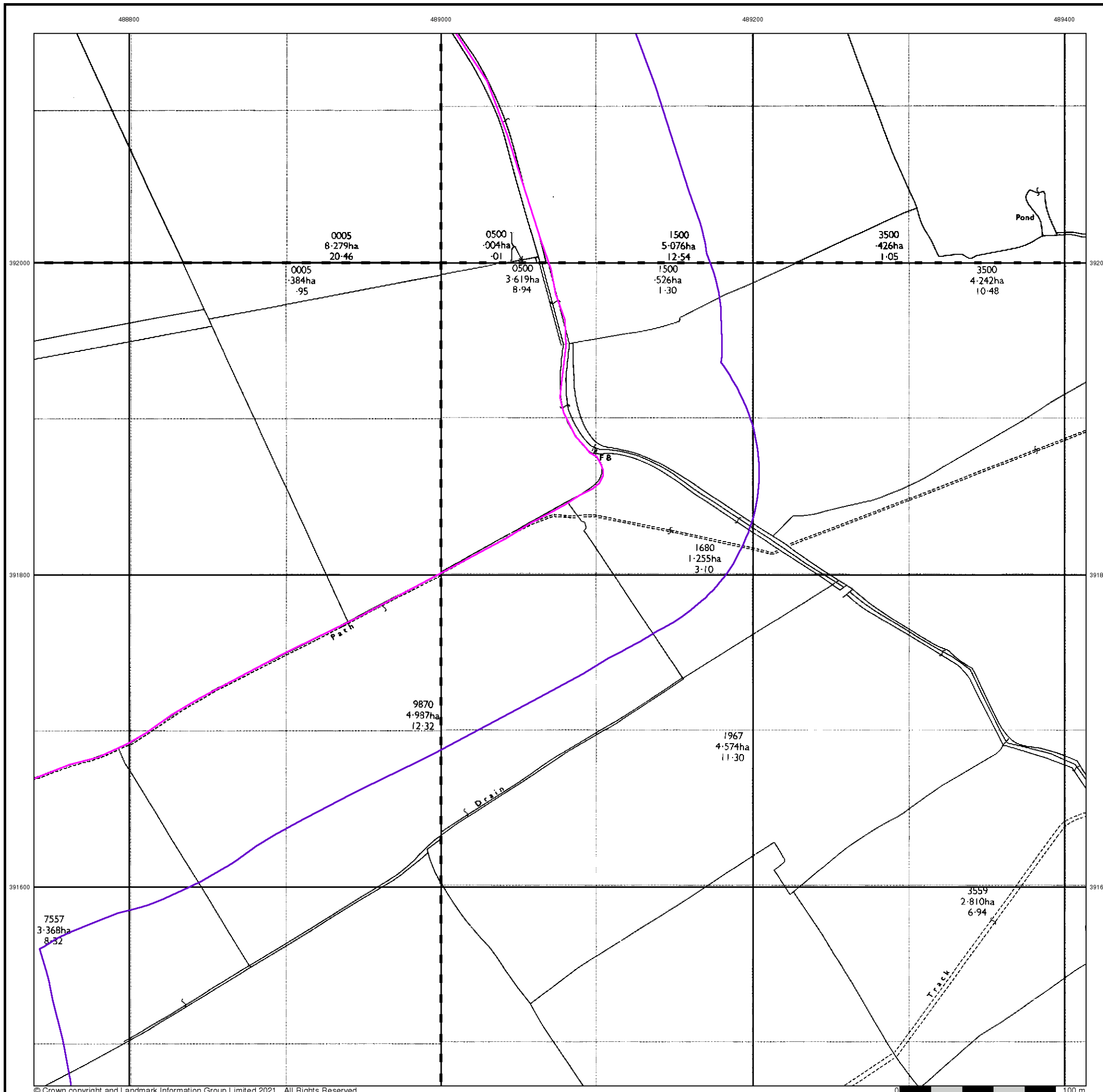


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Site Details

Cottam 2



Large-Scale National Grid Data

Published 1994

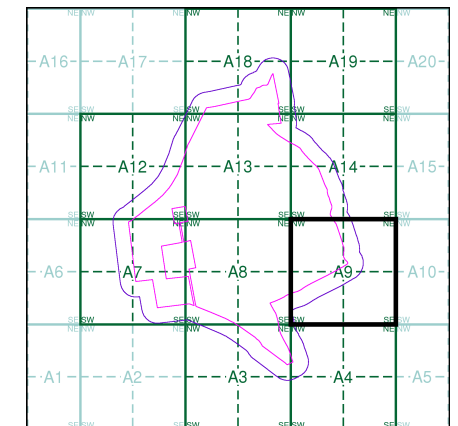
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8892 1994 1:2,500	SK8992 1994 1:2,500
SK8891 1994 1:2,500	SK8991 1994 1:2,500

Historical Map - Segment A9

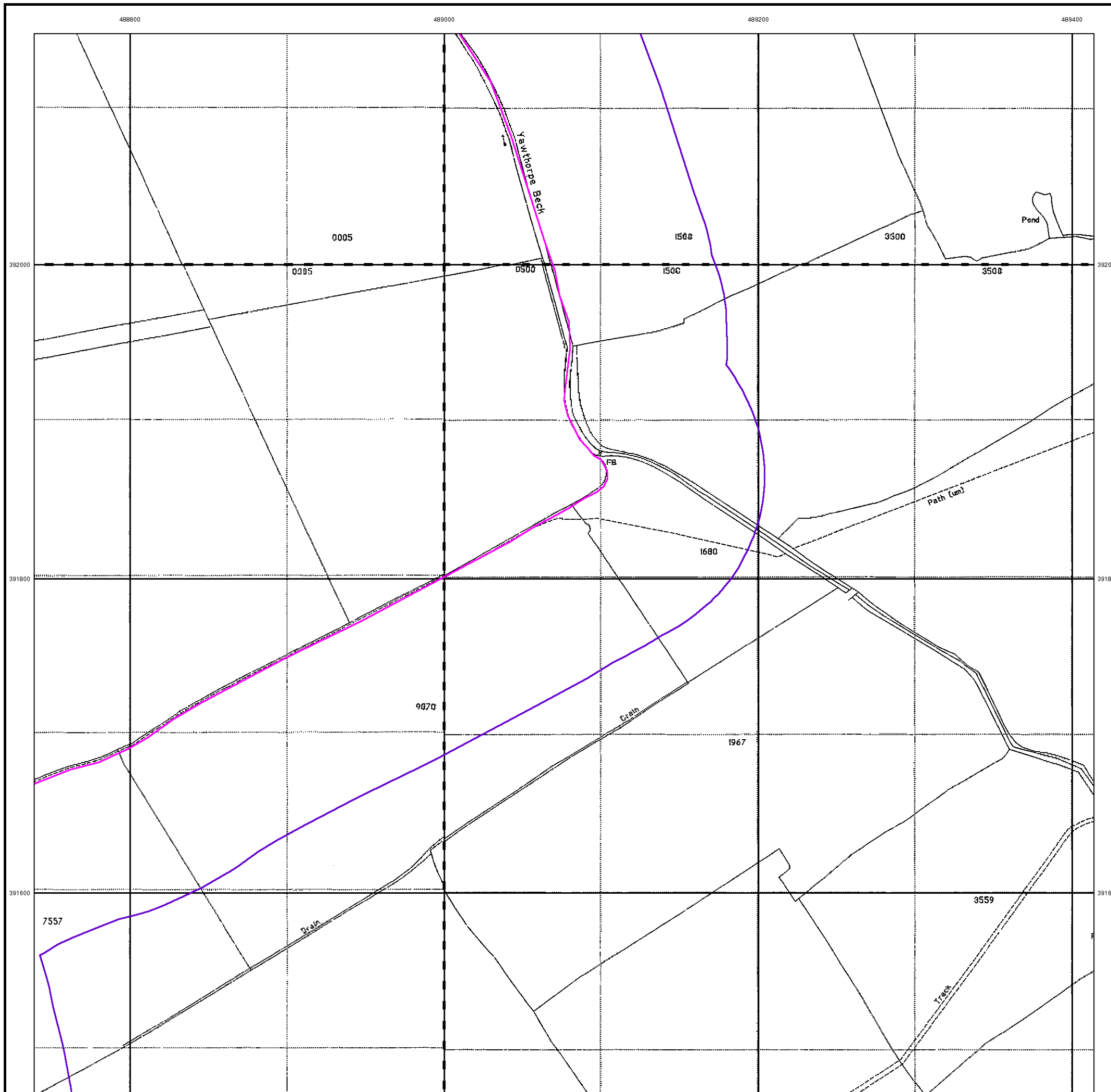


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Site Details

Cottam 2



Large-Scale National Grid Data

Published 1995

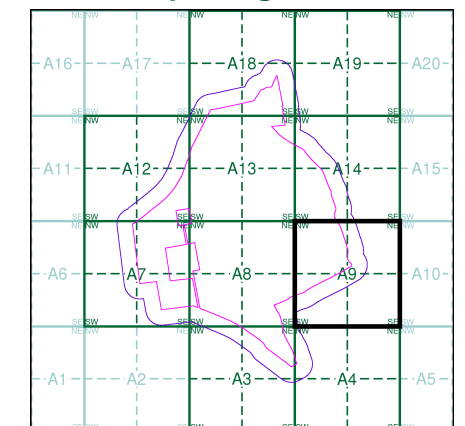
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SK8992	1995	1:2,500
SK8991	1995	1:2,500

Historical Map - Segment A9



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