

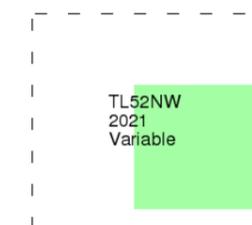
## VectorMap Local

Published 2021

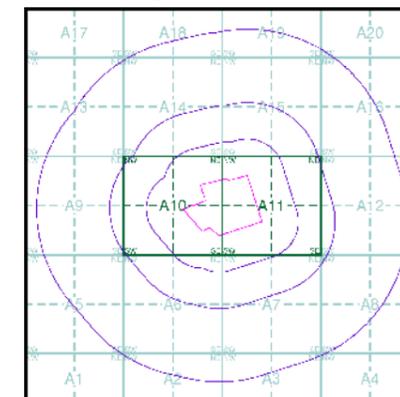
Source map scale - 1:10,000

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

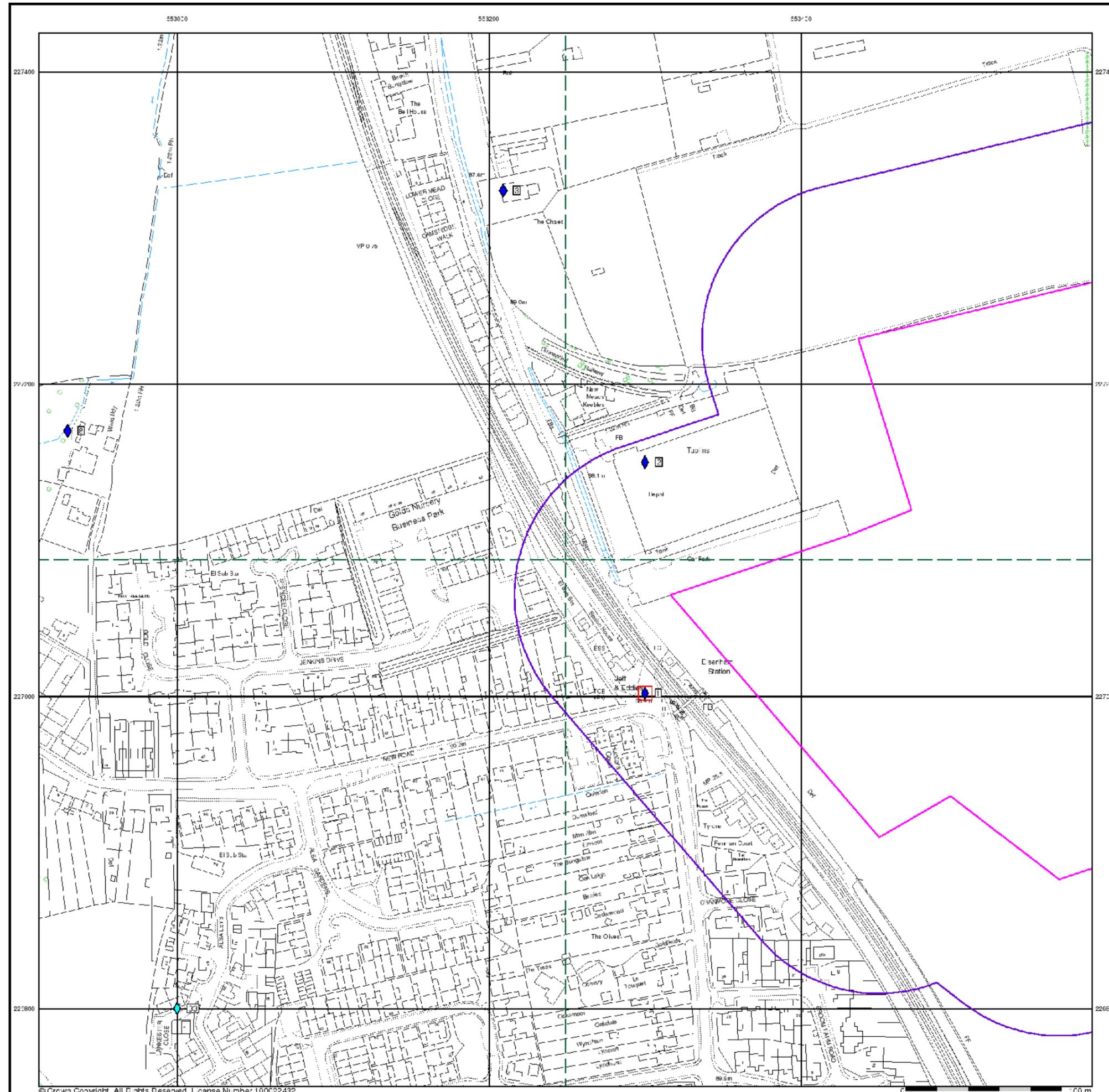
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 1000

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

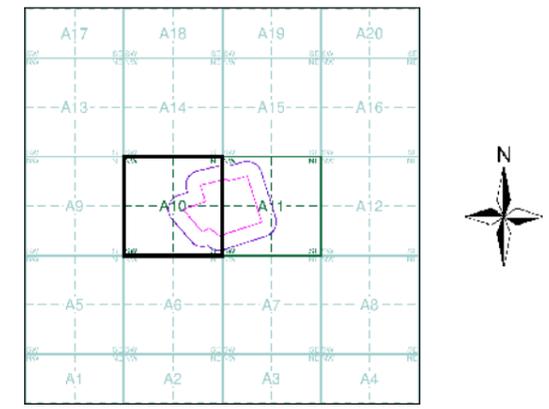


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- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Map ID
  - Several of Type at Location
  - Pylon
  - Overhead Transmission Line
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
  - Contaminated Land Register Entry or Notice
  - Discharge Consent
  - Enforcement or Prohibition Notice
  - Integrated Pollution Control
  - Integrated Pollution Prevention and Control
  - Local Authority Integrated Pollution Prevention and Control
  - Local Authority Pollution Prevention and Control Enforcement
  - Local Authority Recorded Landfill Site
  - Pollution Incident to Controlled Waters
  - Prosecution Relating to Authorised Processes
  - Prosecution Relating to Controlled Waters
  - Registered Radioactive Substance
  - River Network or Water Feature
  - River Quality Sampling Point
  - Substantiated Pollution Incident Register
  - Water Abstraction
  - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
  - BGS Recorded Landfill Site
  - EA Historic Landfill (Buffered Point)
  - EA Historic Landfill (Polygon)
  - Integrated Pollution Control Registered Waste Site
  - Licensed Waste Management Facility (Landfill Boundary)
  - Licensed Waste Management Facility (Location)
  - Local Authority Recorded Landfill Site (Location)
  - Local Authority Recorded Landfill Site
  - Potentially Infilled Land (Non-water)
  - Potentially Infilled Land (Non-water)
  - Potentially Infilled Land (Water)
  - Potentially Infilled Land (Water)
  - Potentially Infilled Land (Water)
  - Registered Landfill Site
  - Registered Landfill Site (Location)
  - Registered Landfill Site (Point Buffered to 100m)
  - Registered Landfill Site (Point Buffered to 250m)
  - Registered Waste Transfer Site (Location)
  - Registered Waste Transfer Site
  - Registered Waste Treatment or Disposal Site (Location)
  - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
  - Explosive Site
  - NIHHS Site
  - Planning Hazardous Substance Consent
  - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

**Site Sensitivity Map - Segment A10**



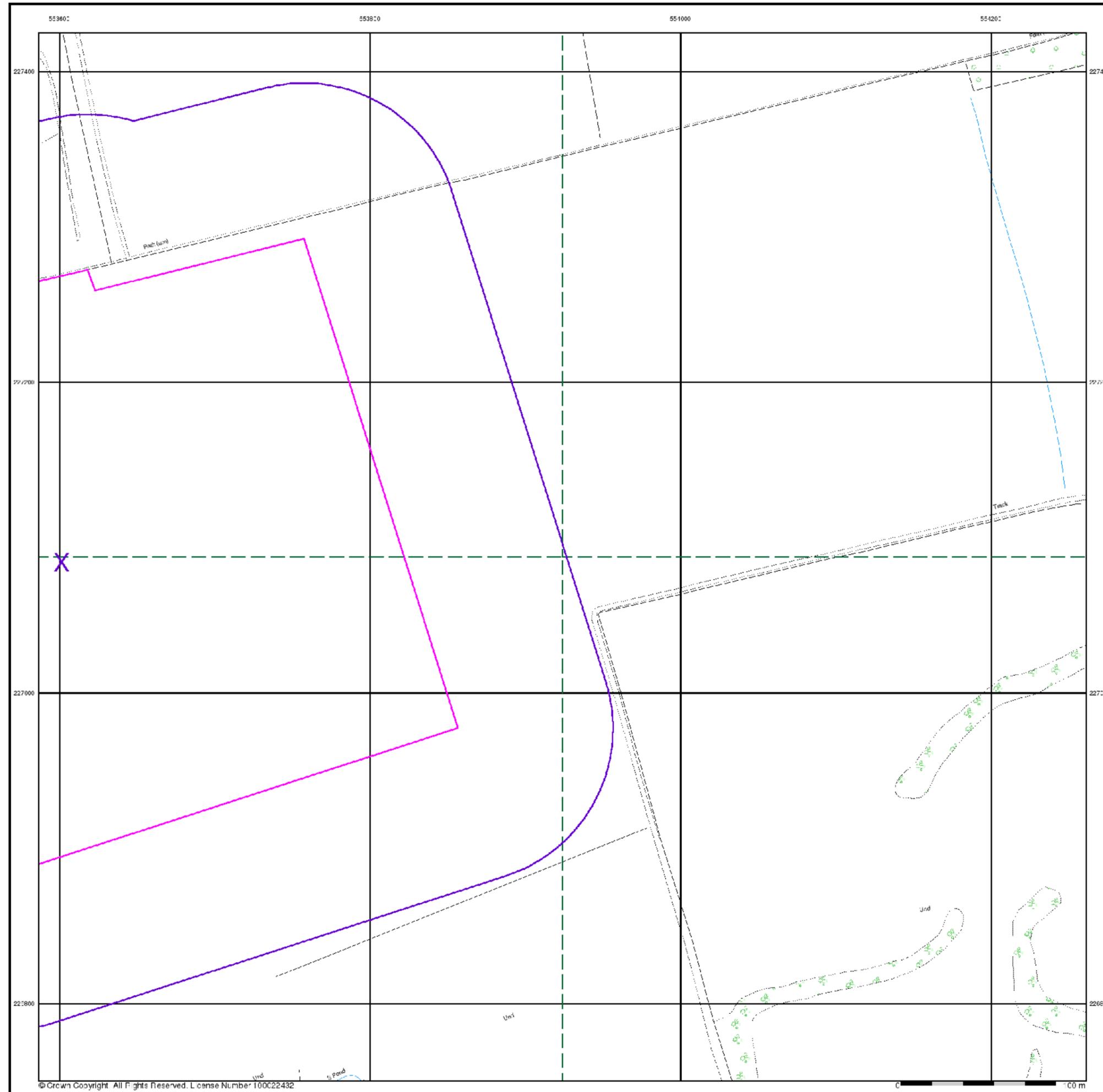
**Order Details**

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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Plot Buffer (m): 100

**Site Details**  
 Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL

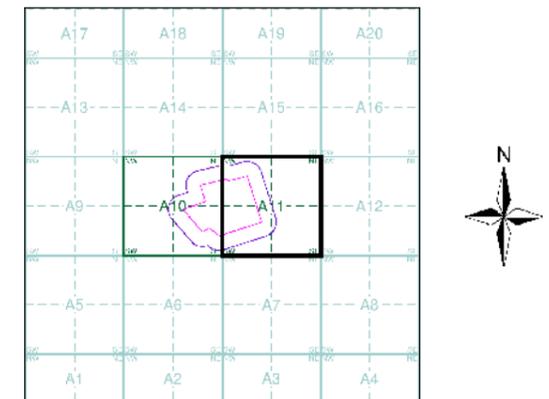
**Landmark**  
 INFORMATION GROUP

Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Map ID
  - Several of Type at Location
  - Pylon
  - Overhead Transmission Line
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
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  - Enforcement or Prohibition Notice
  - Integrated Pollution Control
  - Integrated Pollution Prevention Control
  - Local Authority Integrated Pollution Prevention and Control
  - Local Authority Pollution Prevention and Control Enforcement
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  - River Network or Water Feature
  - River Quality Sampling Point
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  - Water Abstraction
  - Water Industry Act Referral
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  - BGS Recorded Landfill Site
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  - Potentially Infilled Land (Water)
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  - Registered Waste Transfer Site
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  - Registered Waste Treatment or Disposal Site
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- COMAH Site
  - Explosive Site
  - NIHHS Site
  - Planning Hazardous Substance Consent
  - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

**Site Sensitivity Map - Segment A11**



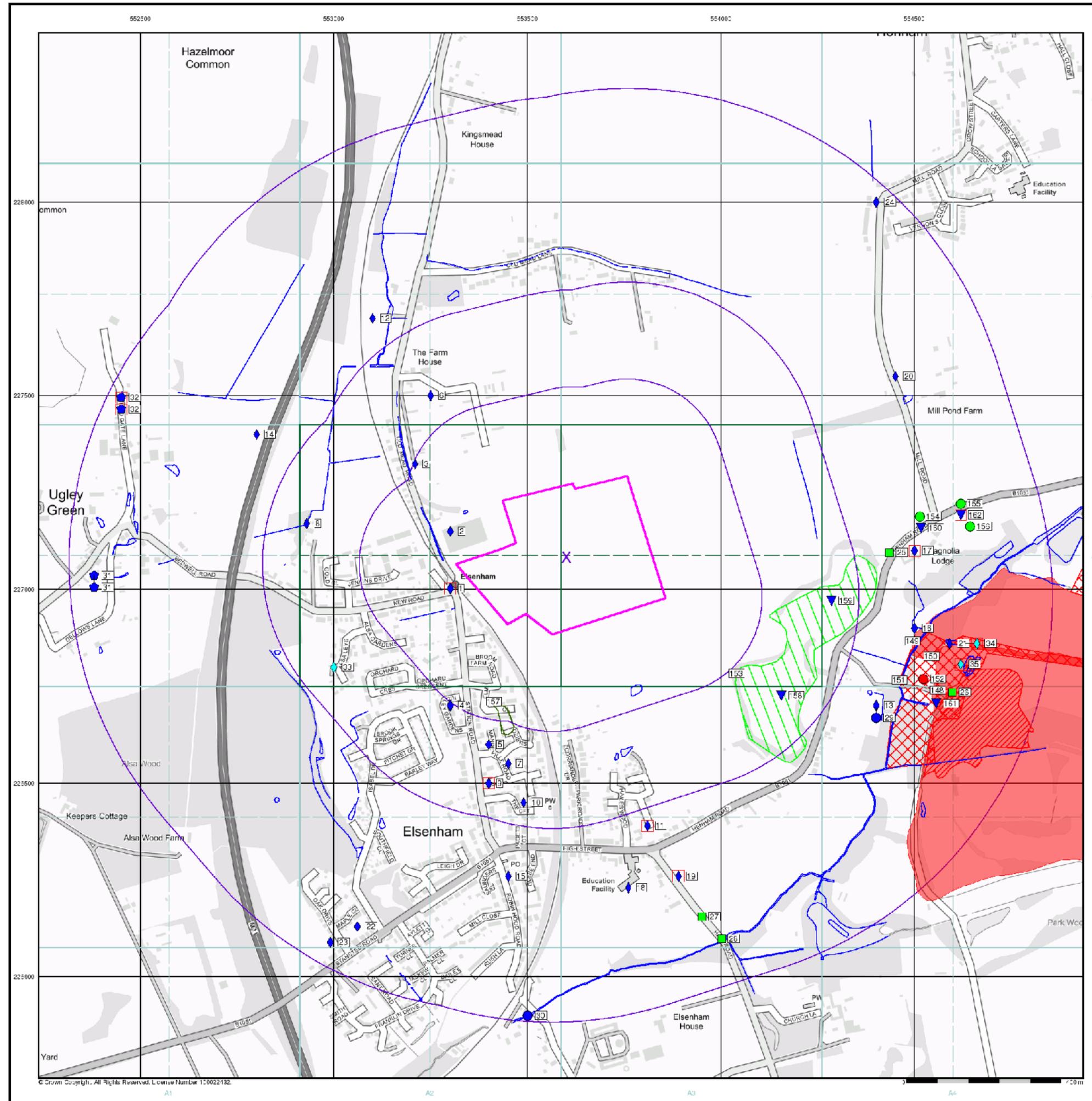
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Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Plot Buffer (m): 100

**Site Details**  
 Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL

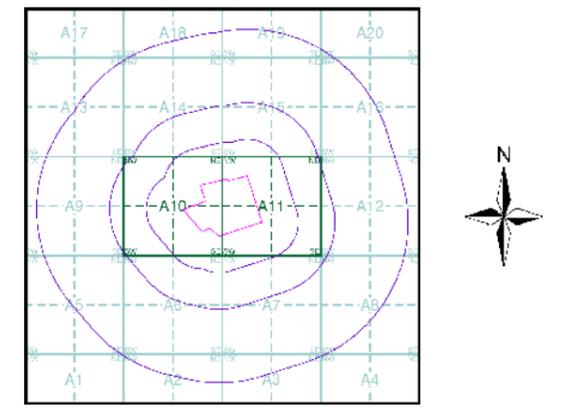
**Landmark**  
 INFORMATION GROUP

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 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Map ID
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
  - Contaminated Land Register Entry or Notice
  - Discharge Consent
  - Enforcement or Prohibition Notice
  - Integrated Pollution Control
  - Integrated Pollution Prevention Control
  - Local Authority Integrated Pollution Prevention and Control
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  - Water Abstraction
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- Waste**
- BGS Recorded Landfill Site (Location)
  - BGS Recorded Landfill Site
  - EA Historic Landfill (Buffered Point)
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  - Potentially Infilled Land (Water)
  - Potentially Infilled Land (Water)
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  - Registered Landfill Site (Point Buffered to 100m)
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  - Registered Waste Treatment or Disposal Site
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- COMAH Site
  - Explosive Site
  - NIHHS Site
  - Planning Hazardous Substance Consent
  - Planning Hazardous Substance Enforcement
  - BGS Recorded Mineral Site
- Geological**
- BGS Recorded Mineral Site

**Site Sensitivity Map - Slice A**



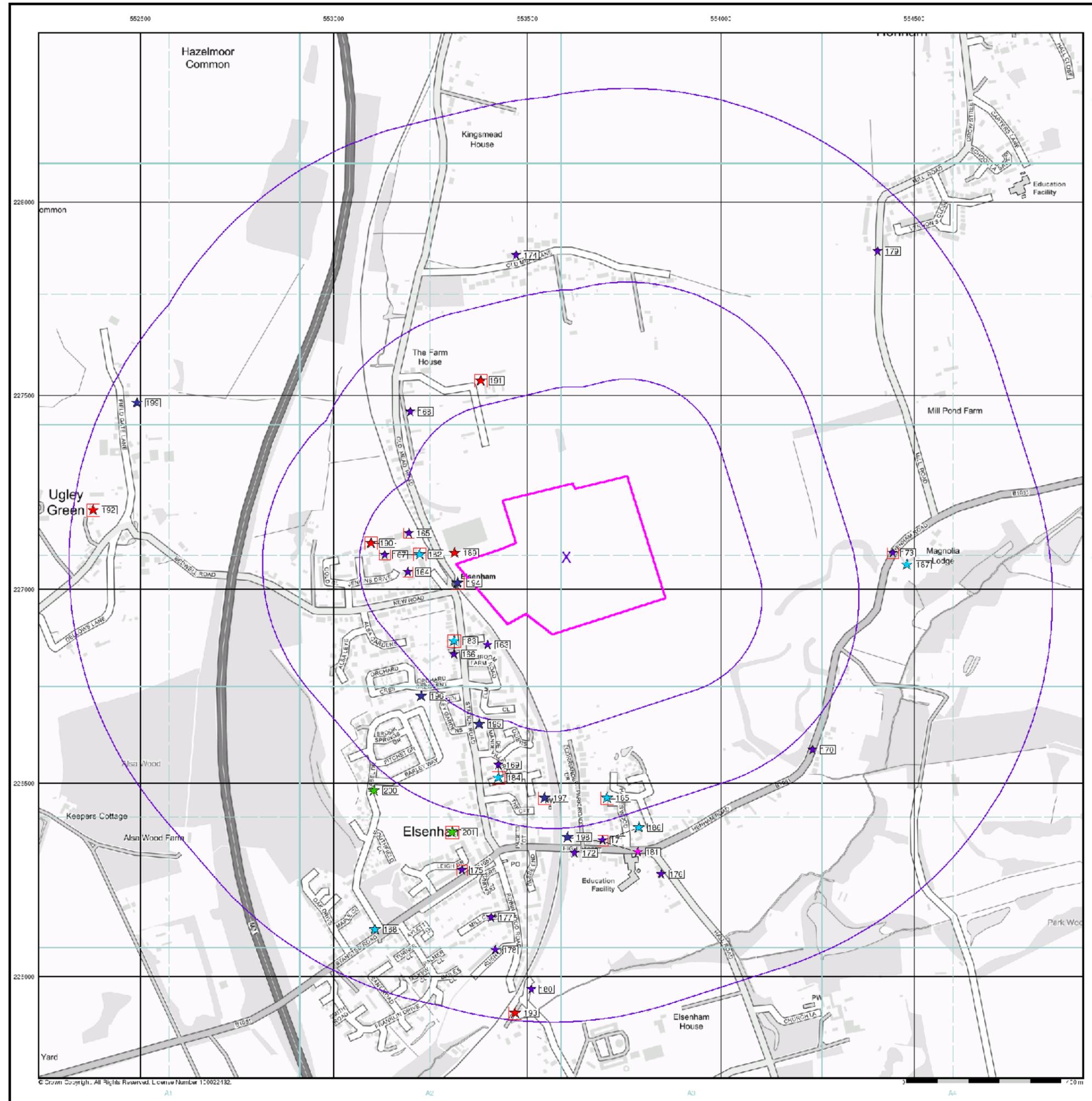
**Order Details**

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 1000

**Site Details**  
 Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL

**Landmark**  
 INFORMATION GROUP

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## Industrial Land Use Map

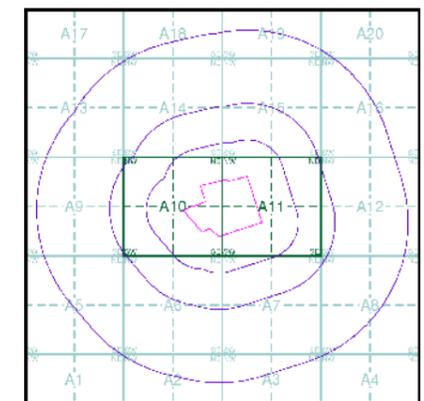
### General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

### Industrial Land Use

-  Contemporary Trade Directory Entry
-  Fuel Station Entry
-  Gas Pipeline
-  Points of Interest - Commercial Services
-  Points of Interest - Education and Health
-  Points of Interest - Manufacturing and Production
-  Points of Interest - Public Infrastructure
-  Points of Interest - Recreational and Environmental
-  Underground Electrical Cables

### Industrial Land Use Map - Slice A



### Order Details

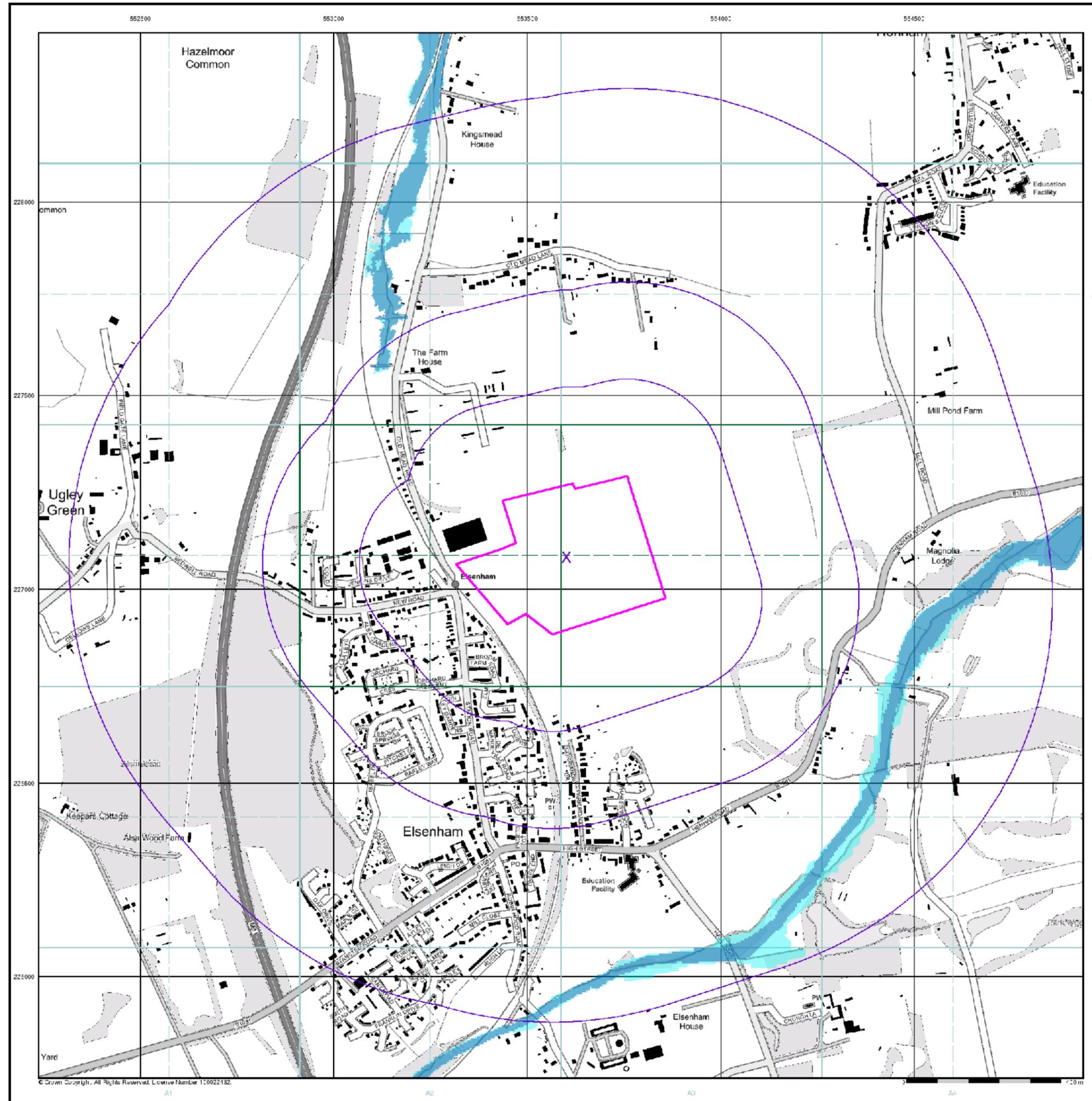
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 National Grid Reference: 553600, 227080  
 Slice: A  
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 Search Buffer (m): 1000

### Site Details

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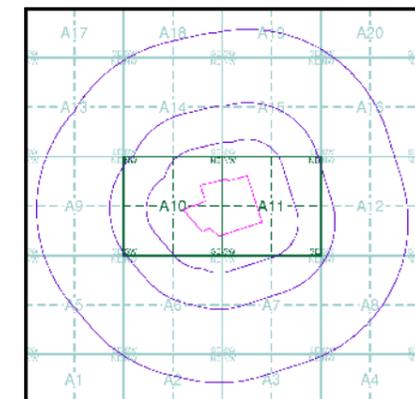
**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

**Agency and Hydrological (Flood)**

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

**Flood Map - Slice A**



**Order Details**

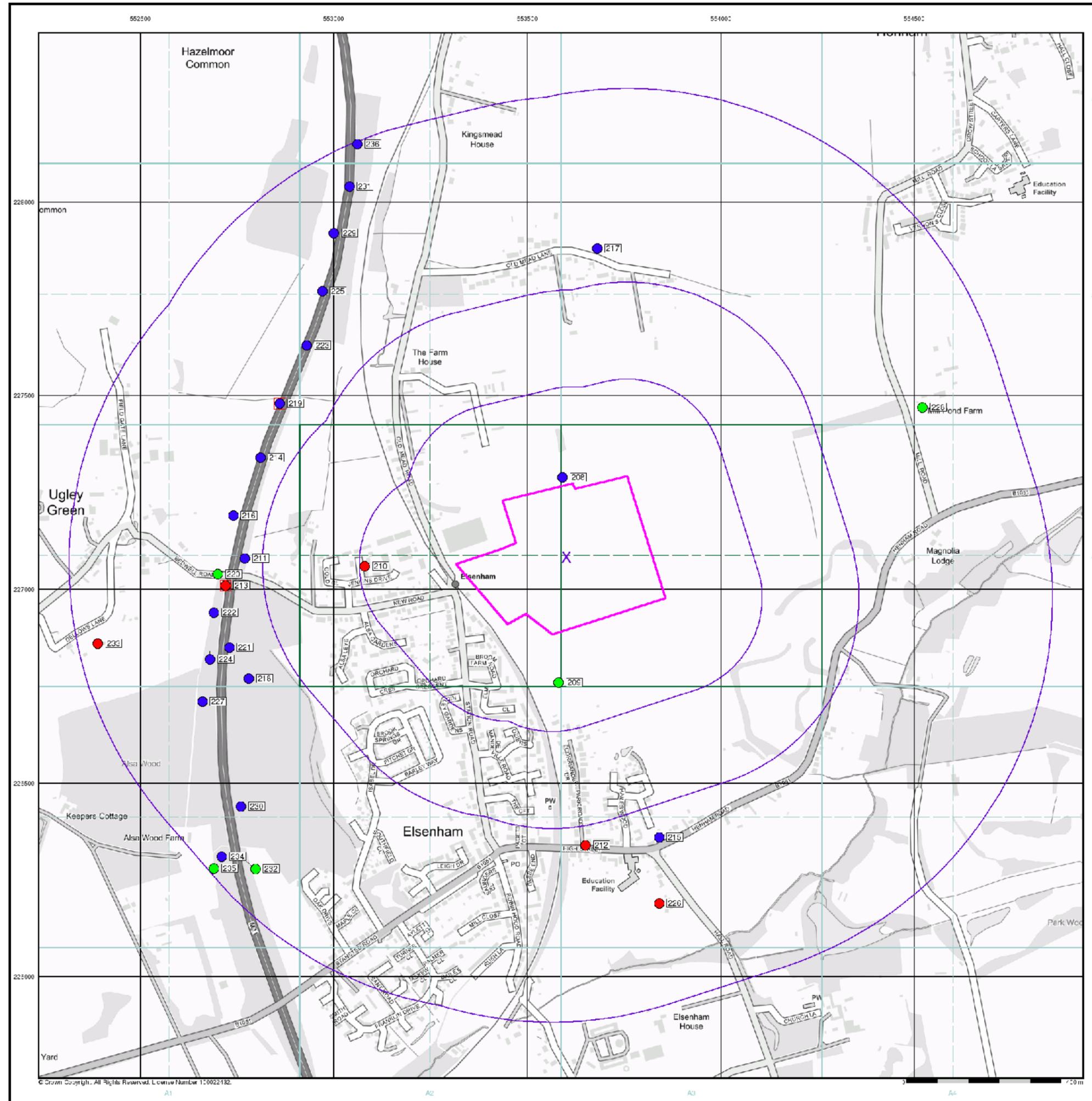
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 1000

**Site Details**

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**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

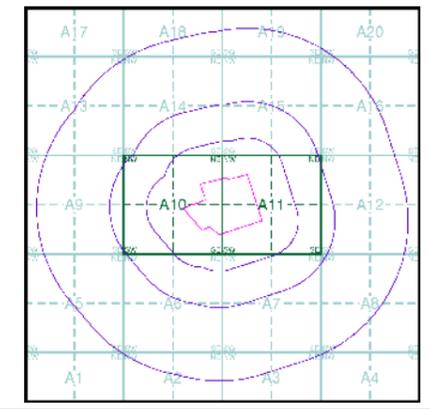
**Agency and Hydrological (Boreholes)**

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of [www.envirocheck.co.uk](http://www.envirocheck.co.uk).

**Borehole Map - Slice A**



**Order Details**

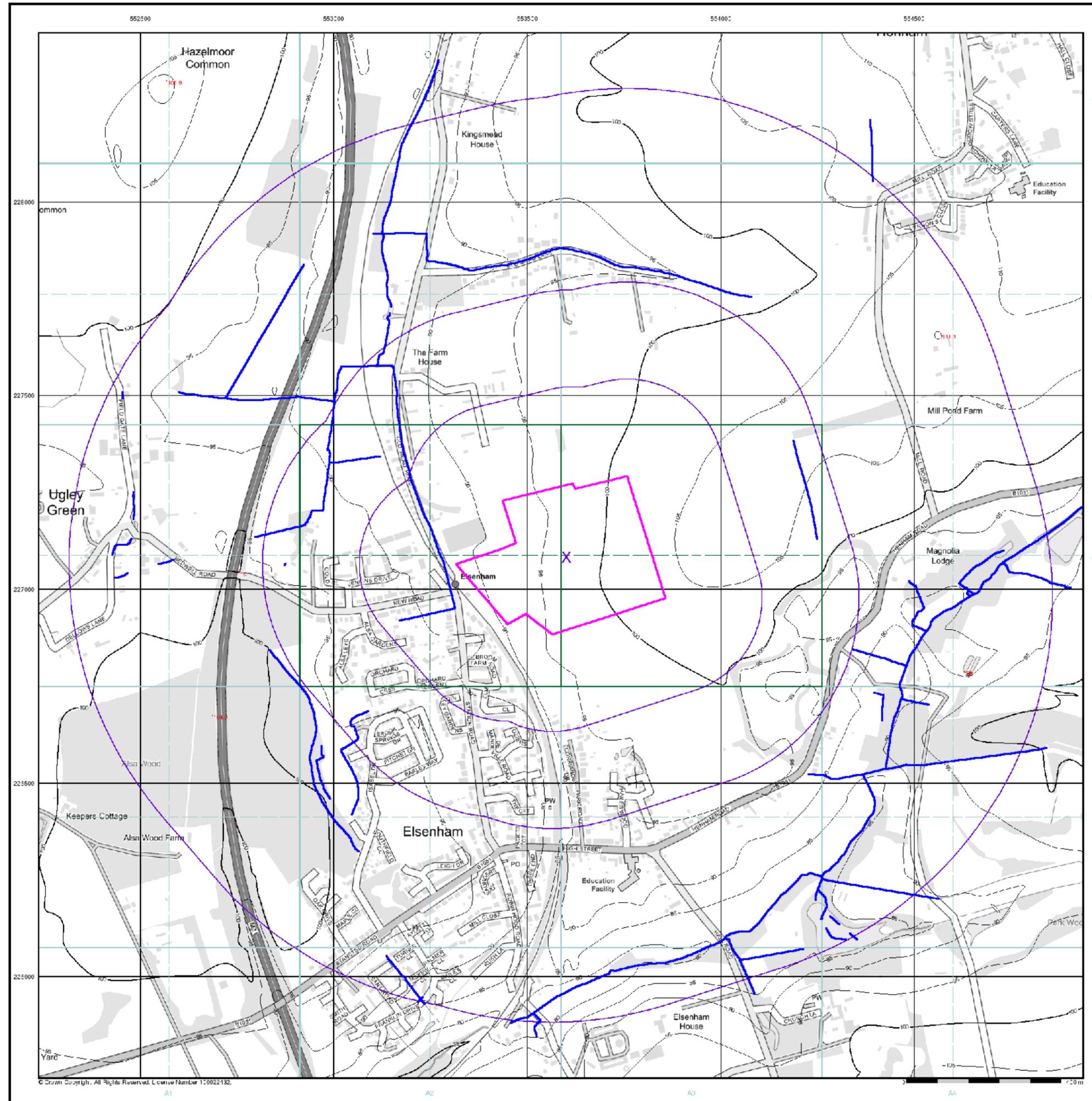
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 1000

**Site Details**

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 Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

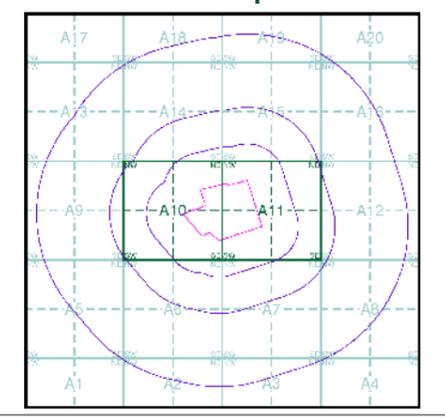
**OS Water Network Data**

- |              |                         |
|--------------|-------------------------|
| Canal        | Drain                   |
| Reservoir    | Other                   |
| Foreshore    | Lake                    |
| Marsh        | Transfer                |
| Tidal River  | Lock Or Flight Of Locks |
| Inland River | Sea                     |

**Contours (height in meters)**

- Standard Contour 105
- Master Contour 100
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

**OS Water Network Map - Slice A**



**Order Details**

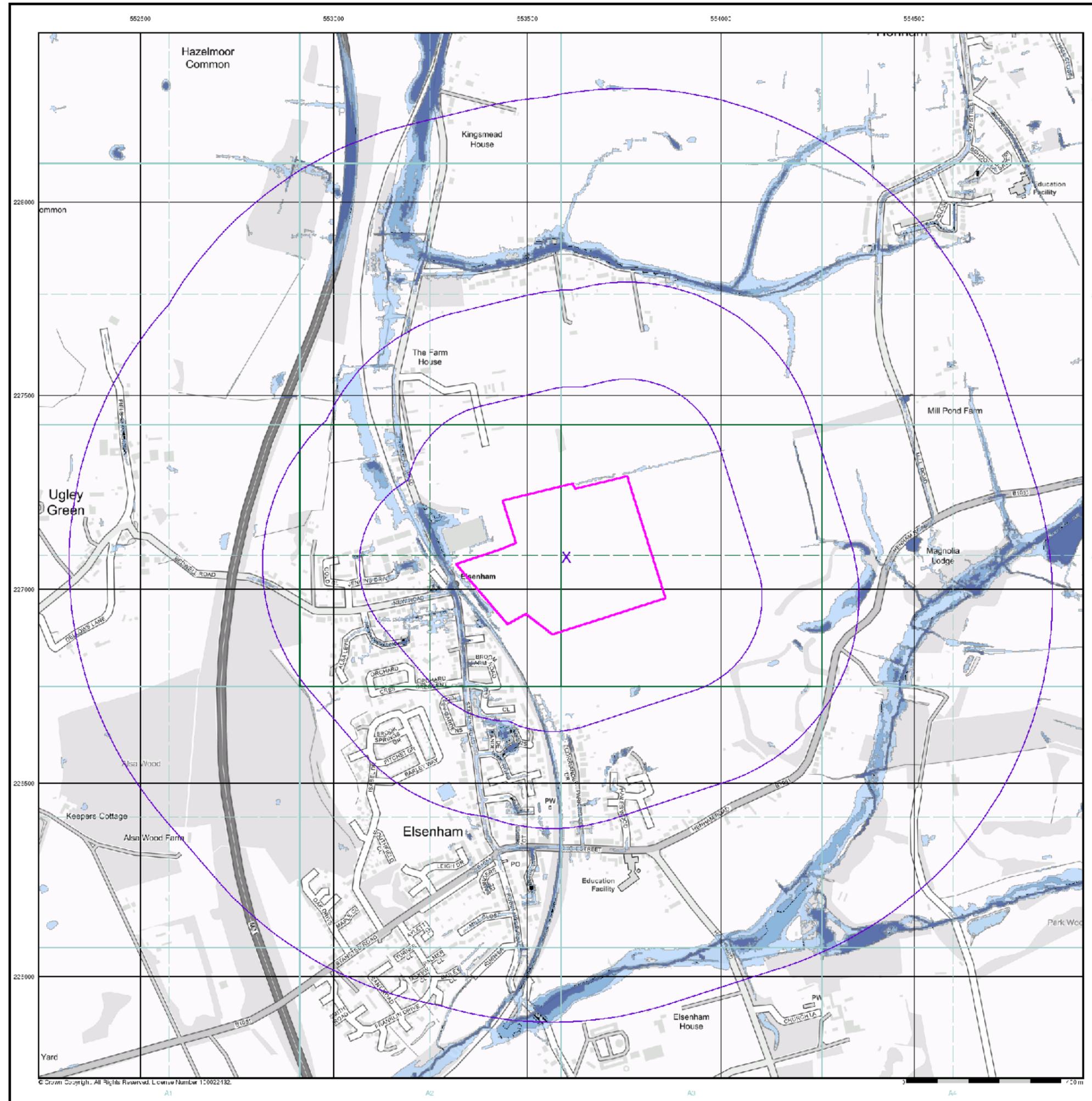
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 1000

**Site Details**

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 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

**Risk of Flooding from Surface Water**

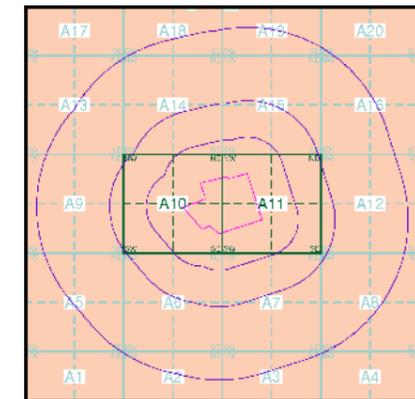
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

**Suitability**

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

**EANRW Suitability Map - Slice A**



**Order Details**

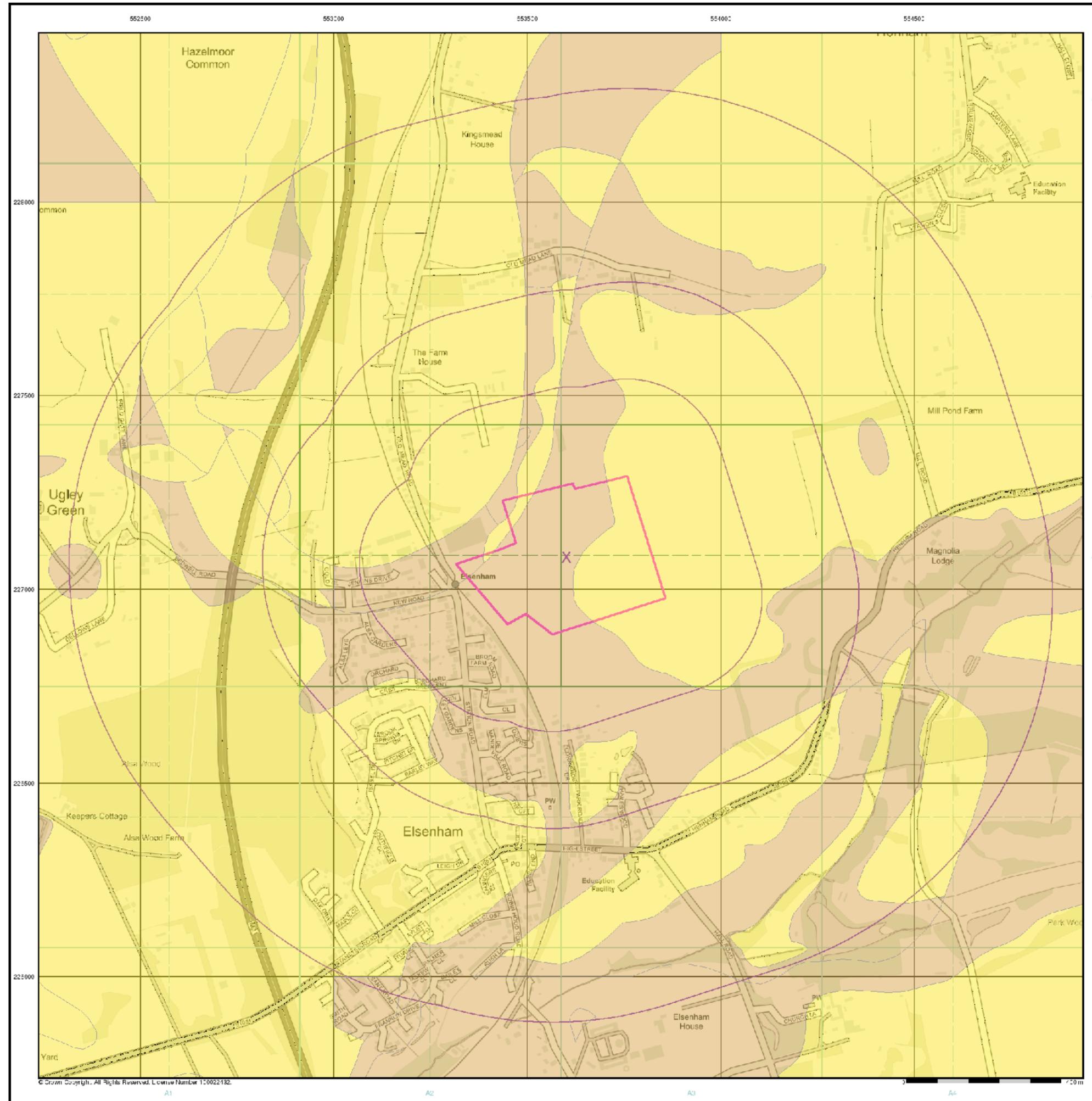
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
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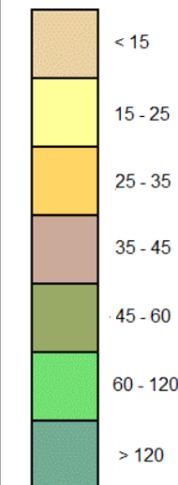


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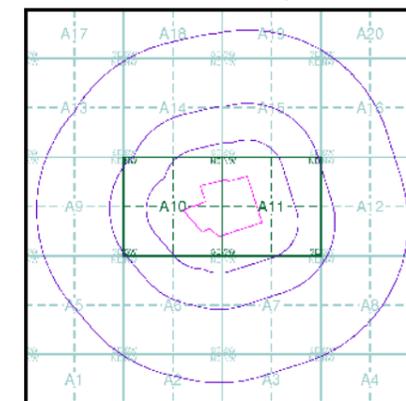
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

**Estimated Soil Chemistry Arsenic**

Arsenic Concentrations mg/kg



**Estimated Soil Chemistry Arsenic - Slice A**



**Order Details**

Order Details: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
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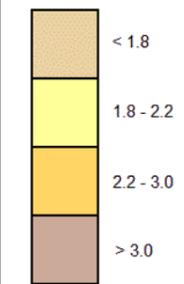


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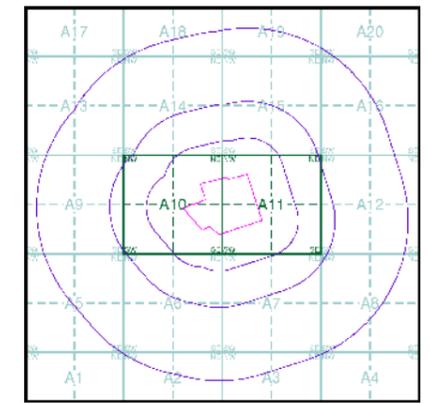
- ◊ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

**Estimated Soil Chemistry Cadmium**

Cadmium Concentrations mg/kg



**Estimated Soil Chemistry Cadmium - Slice A**



**Order Details**

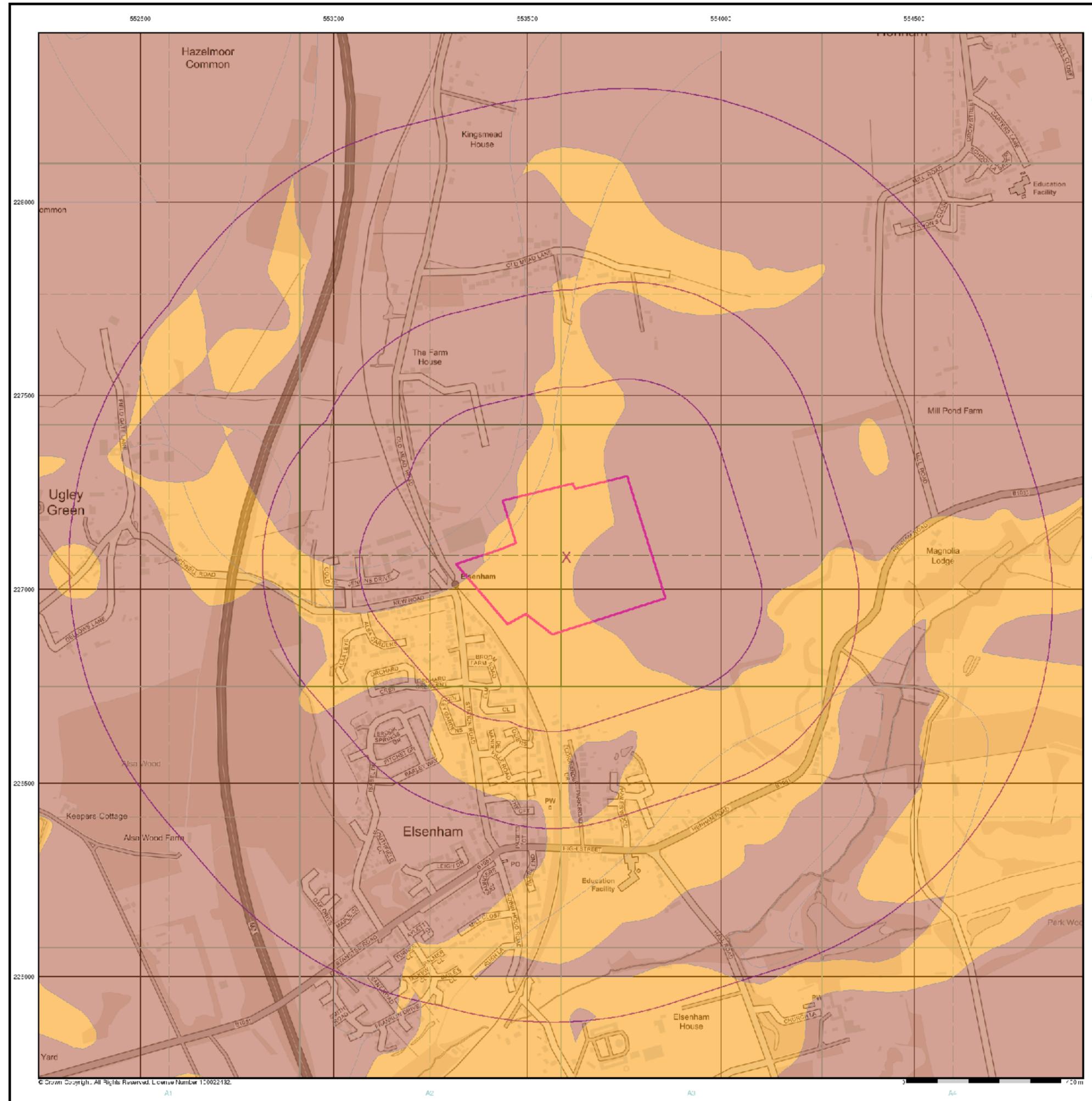
Order Details: 285338568\_1\_1  
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 National Grid Reference: 553600, 227080  
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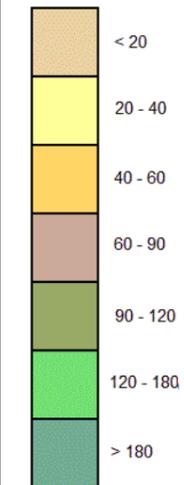


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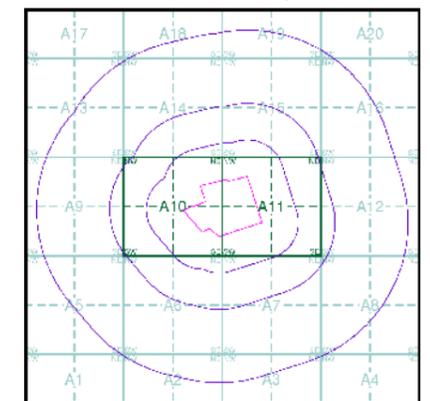
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

**Estimated Soil Chemistry Chromium**

Chromium Concentrations mg/kg



**Estimated Soil Chemistry Chromium - Slice A**



**Order Details**

Order Details: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
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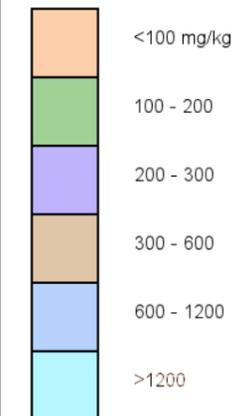


**General**

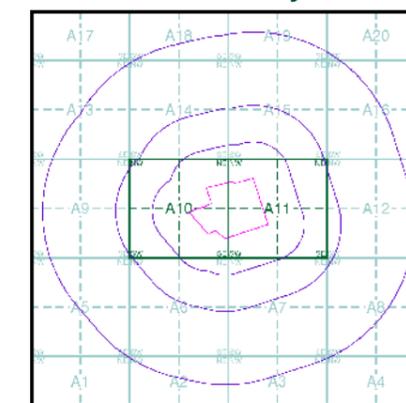
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

**Estimated Soil Chemistry Lead**

Lead Concentrations mg/kg



**Estimated Soil Chemistry Lead - Slice A**



**Order Details**

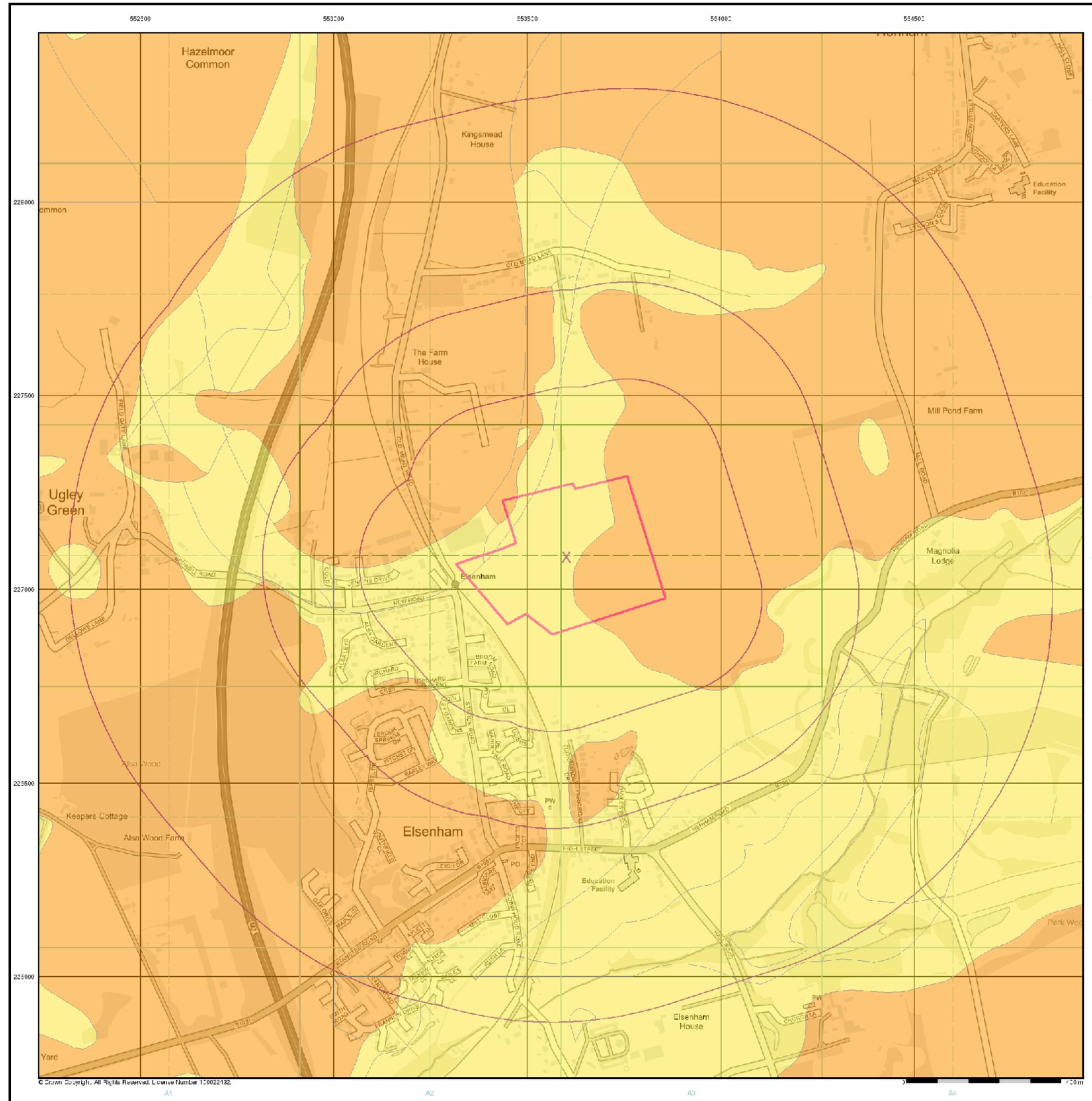
Order Details: 285338568\_1\_1  
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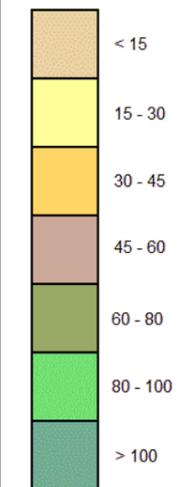


**General**

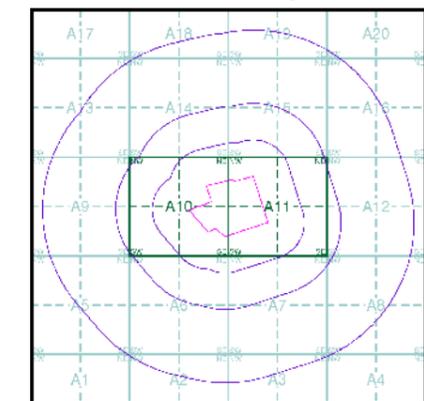
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

**Estimated Soil Chemistry Nickel**

Nickel Concentrations mg/kg



**Estimated Soil Chemistry Nickel - Slice A**



**Order Details**

Order Details: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
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# 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

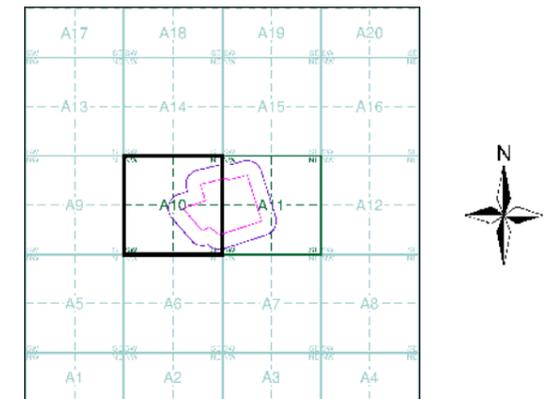
**Cliff**   **Slopes**   **Top**  
**Rock**   **Rock (scattered)**  
**Boulders**   **Boulders (scattered)**  
**Positioned Boulder**   **Scree**  
**Non-Coniferous Tree (surveyed)**   **Coniferous Tree (surveyed)**  
**Non-Coniferous Trees (not surveyed)**   **Coniferous Trees (not surveyed)**  
**Orchard 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
Essex	1:2,500	1875 - 1877	2
Essex	1:2,500	1897	3
Essex	1:2,500	1920 - 1921	4
Ordnance Survey Plan	1:2,500	1970 - 1979	5
Additional SIMs	1:2,500	1978 - 1987	6
Ordnance Survey Plan	1:2,500	1981	7
Additional SIMs	1:2,500	1987 - 1992	8
Large-Scale National Grid Data	1:2,500	1993	9
Large-Scale National Grid Data	1:2,500	1994	10
Historical Aerial Photography	1:2,500	1999	11

## Historical Map - Segment A10



## Order Details

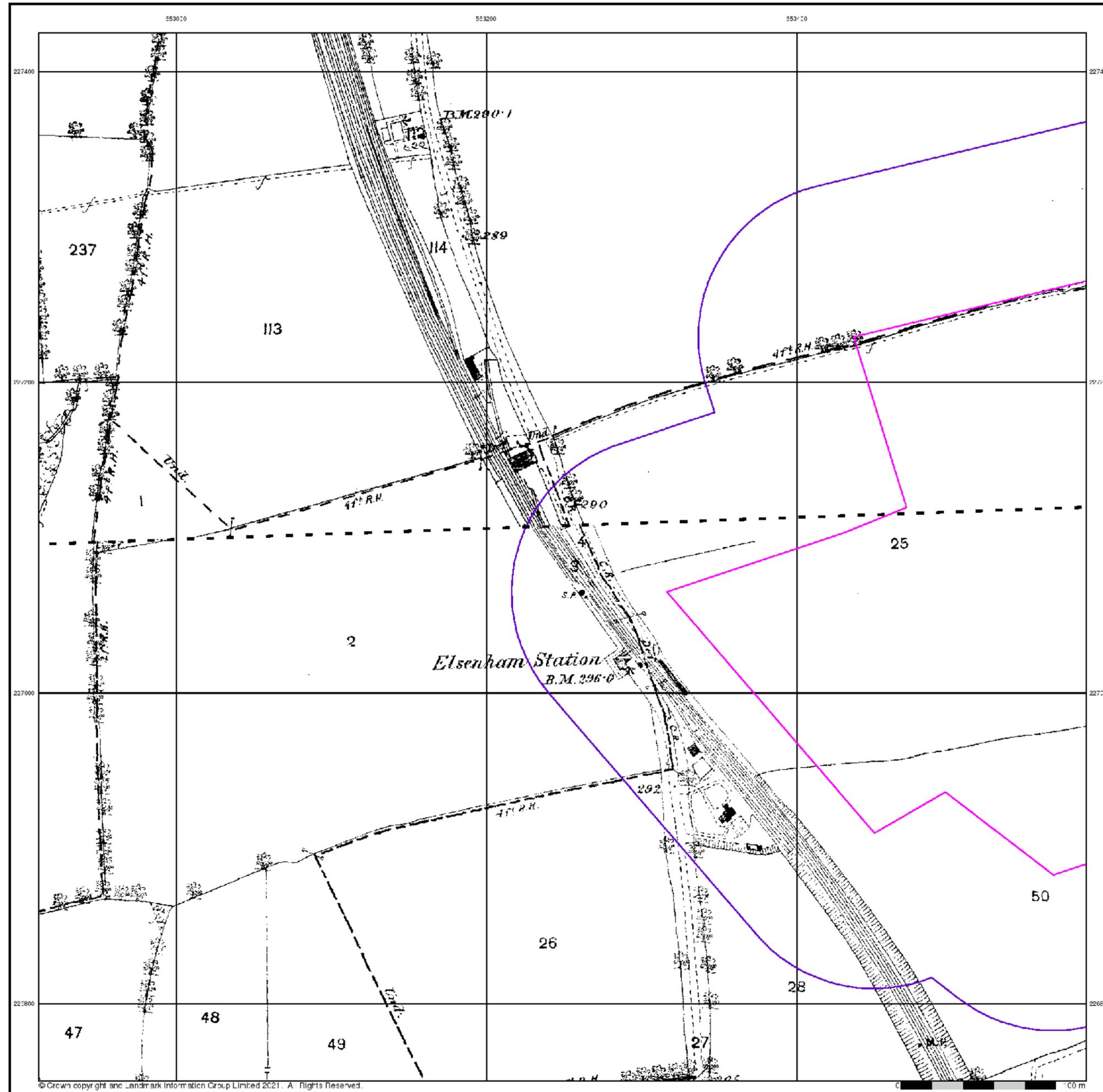
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

## Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



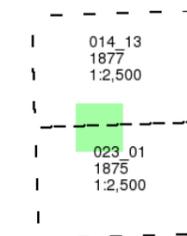
**Essex**

**Published 1875 - 1877**

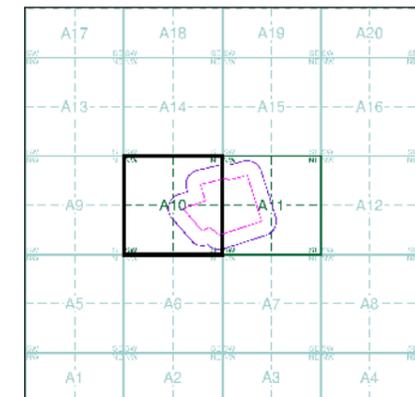
**Source map scale - 1:2,500**

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 A10**



**Order Details**

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
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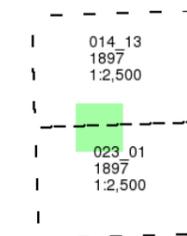
Essex

Published 1897

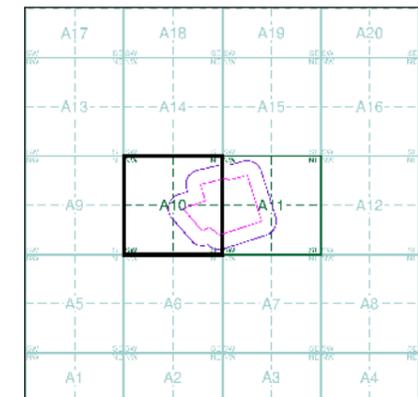
Source map scale - 1:2,500

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 A10



Order Details

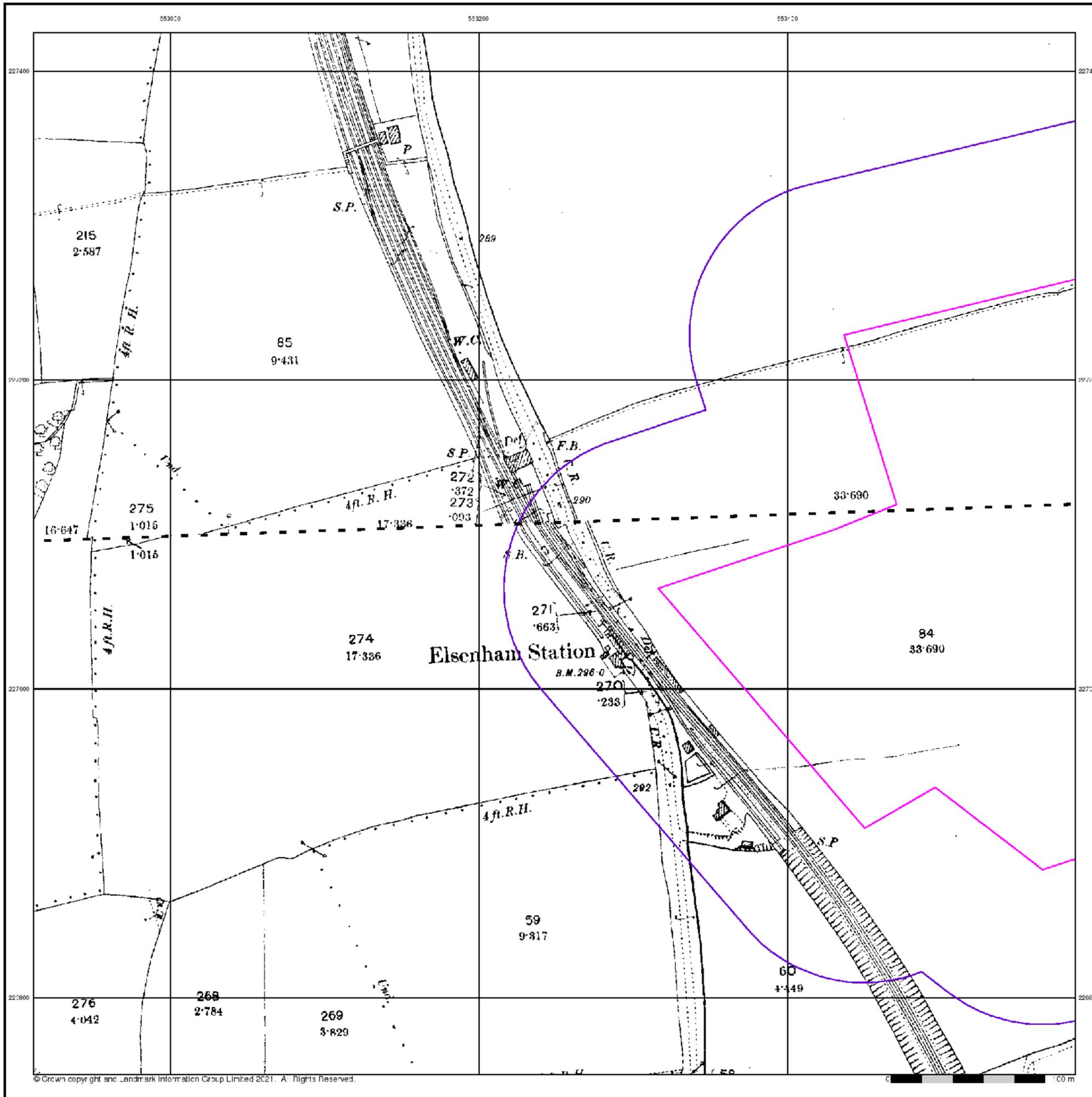
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National Grid Reference: 553600, 227080  
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Search Buffer (m): 100

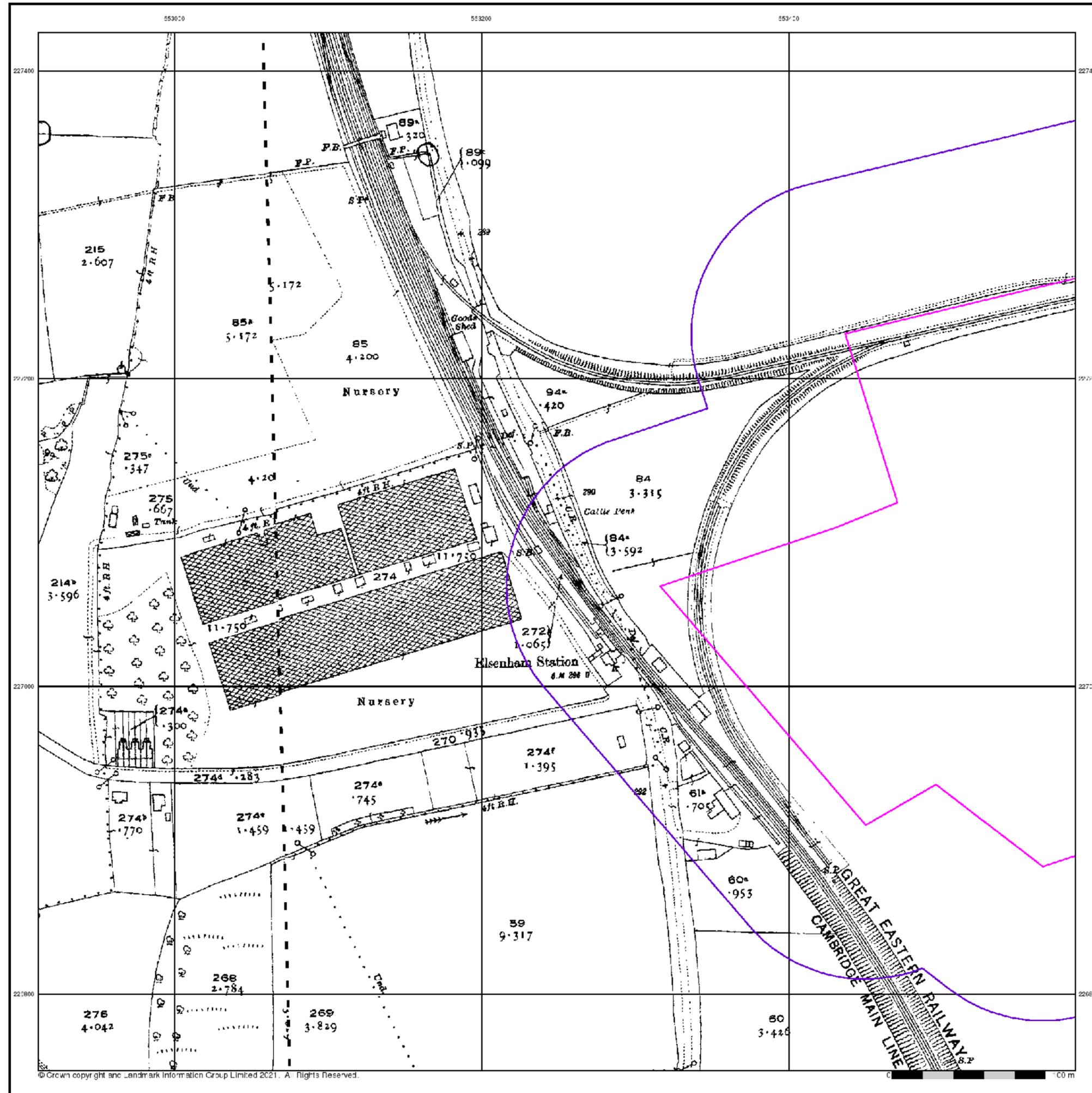
Site Details

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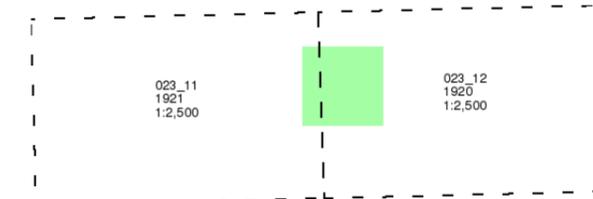
**Essex**

**Published 1920 - 1921**

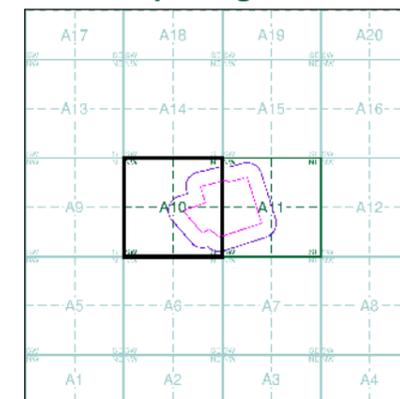
**Source map scale - 1:2,500**

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 A10**



**Order Details**

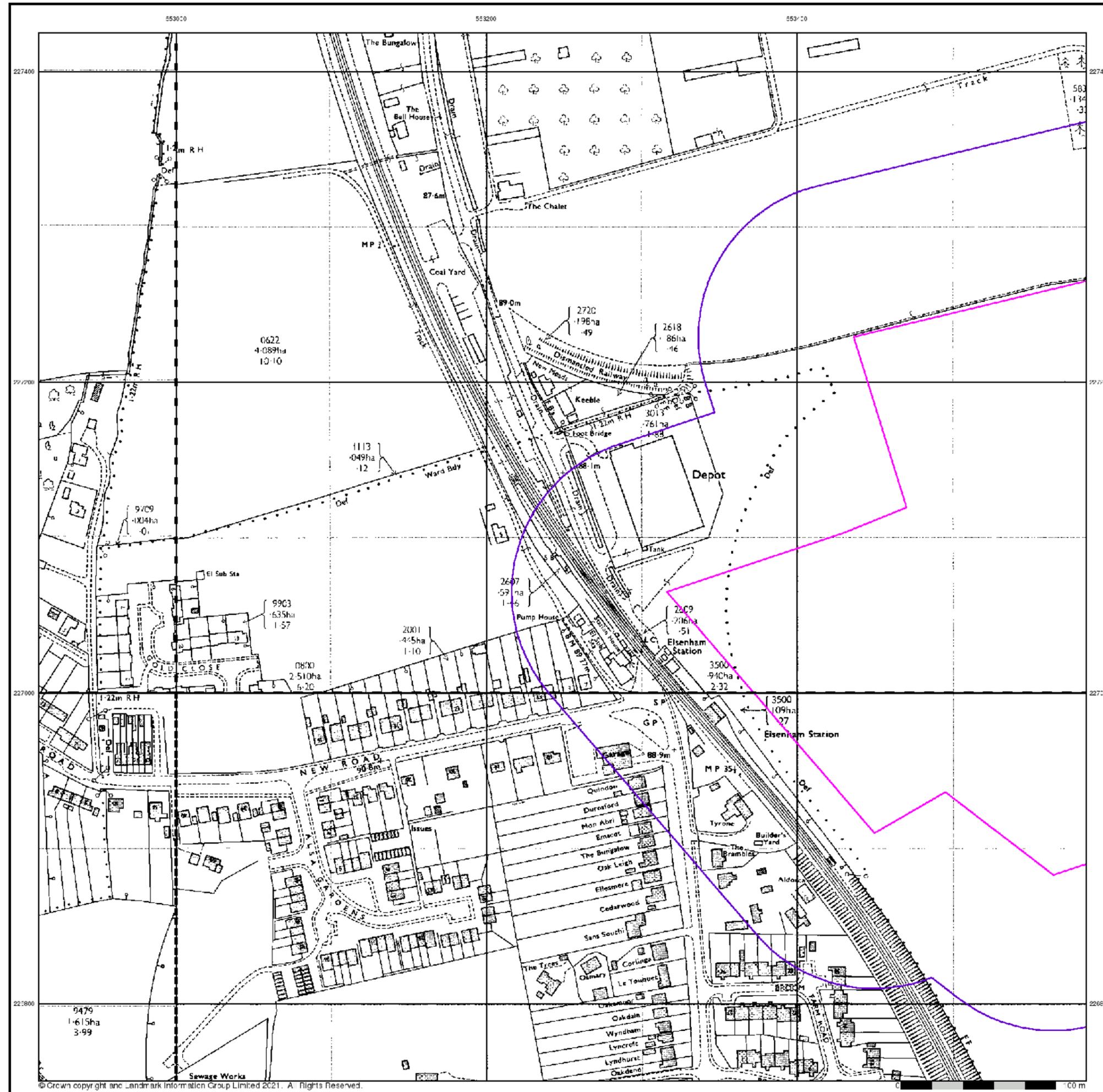
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
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 Site Area (Ha): 13.74  
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## Ordnance Survey Plan

Published 1970 - 1979

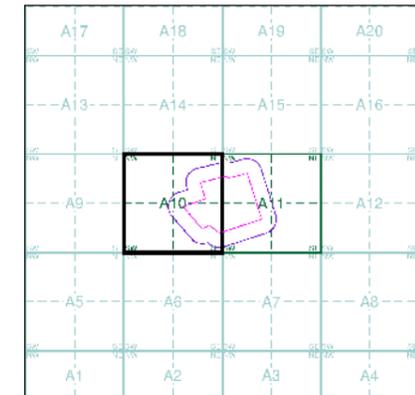
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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)

TL5227 1979 12,500	TL5327 1979 12,500
TL5226 1970 12,500	TL5326 1970 12,500

### Historical Map - Segment A10



### Order Details

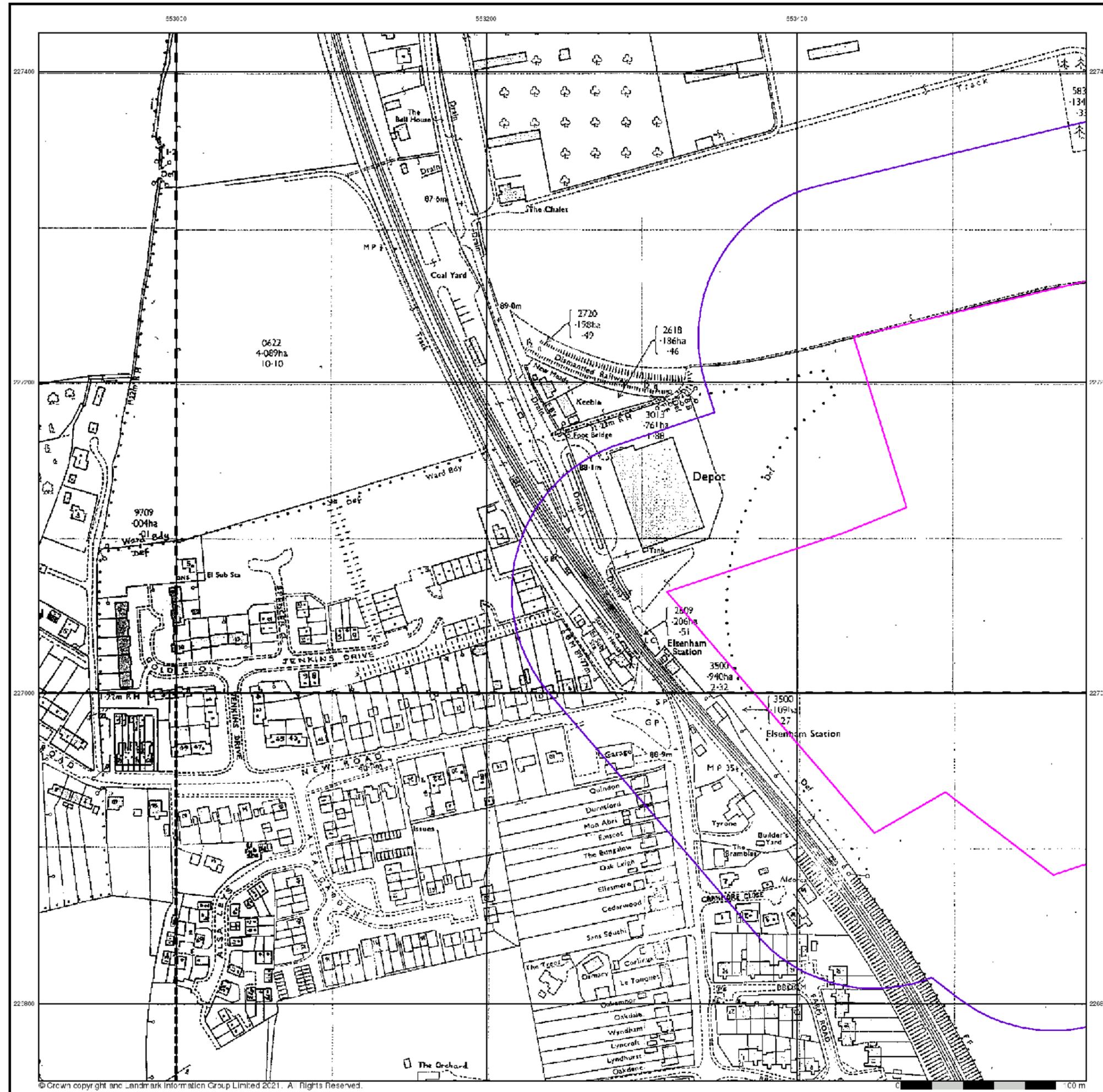
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

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**Additional SIMs**

**Published 1978 - 1987**

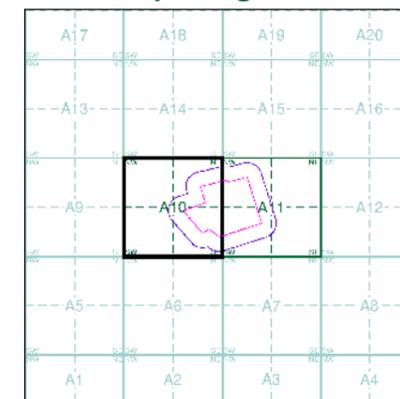
**Source map scale - 1:2,500**

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

**Map Name(s) and Date(s)**

TL5227 1980 12,500	TL5327 1987 12,500
TL5226 1980 12,500	TL5326 1978 12,500

**Historical Map - Segment A10**



**Order Details**

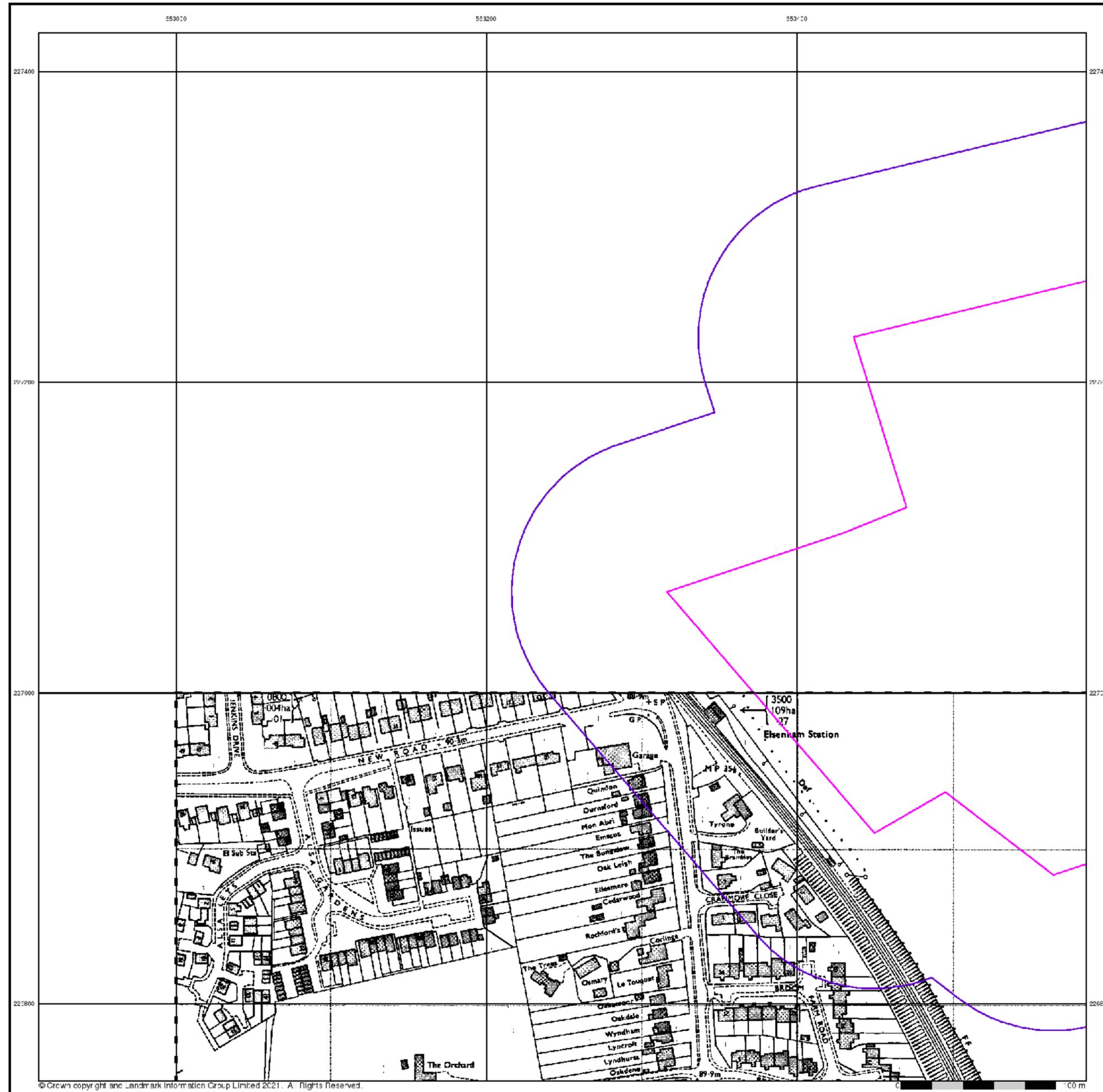
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
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 Site Area (Ha): 13.74  
 Search Buffer (m): 100

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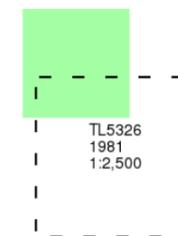
## Ordnance Survey Plan

Published 1981

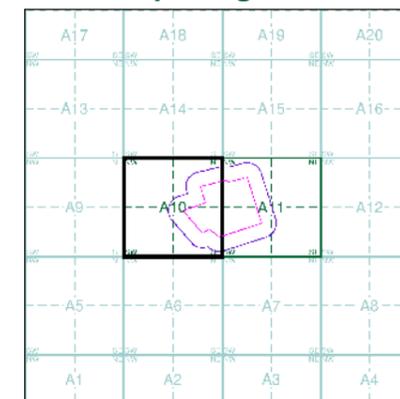
Source map scale - 1:2,500

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 A10



### Order Details

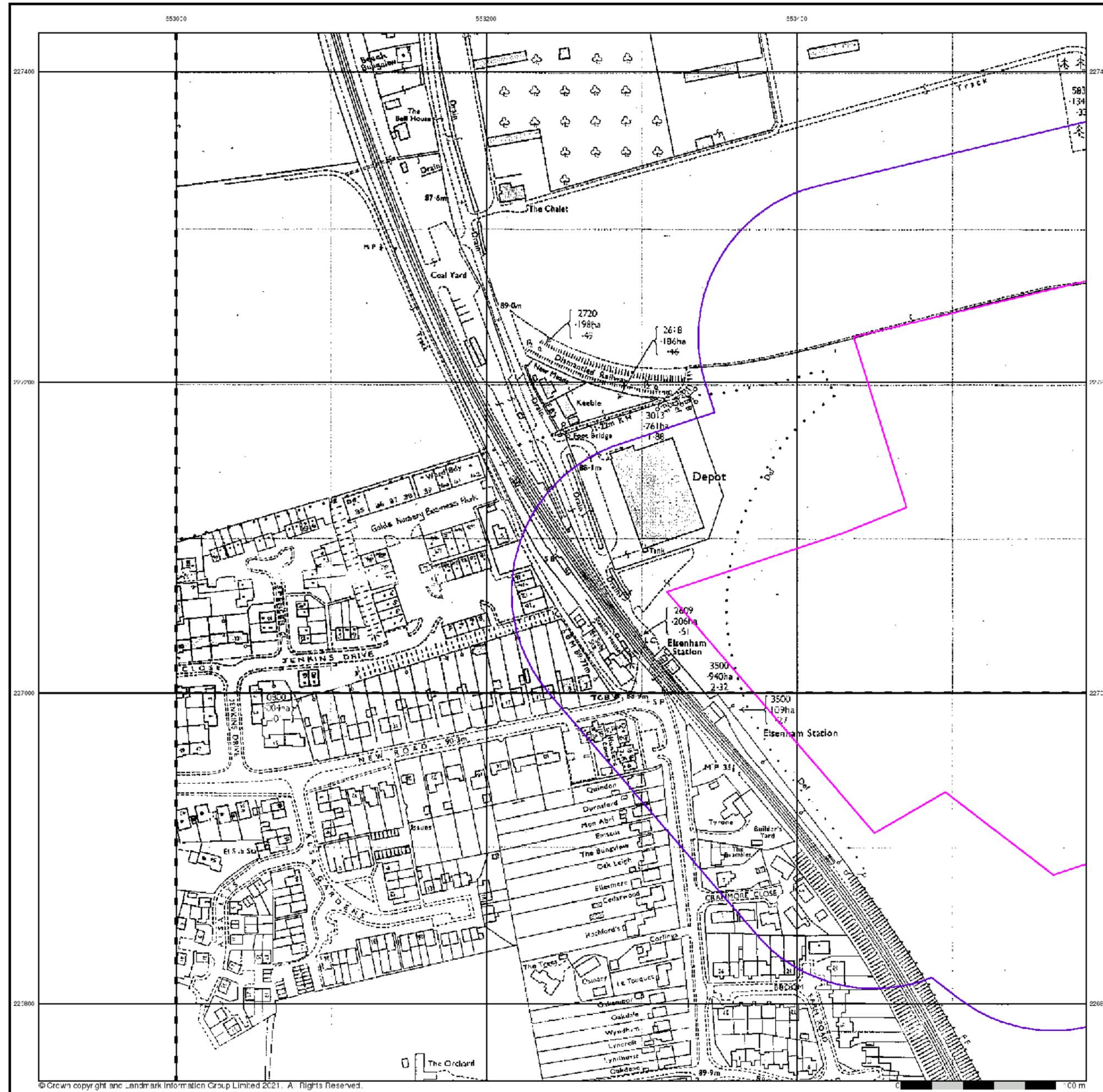
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
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### Additional SIMs

Published 1987 - 1992

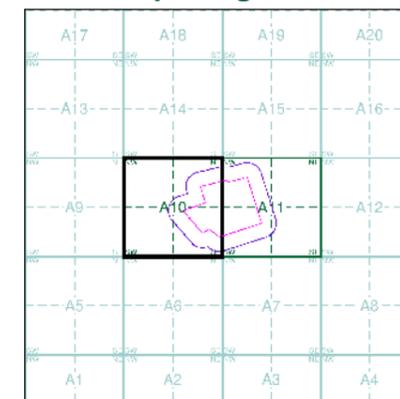
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)

TL5327	1992	1:2,500
TL5326	1987	1:2,500

### Historical Map - Segment A10



### Order Details

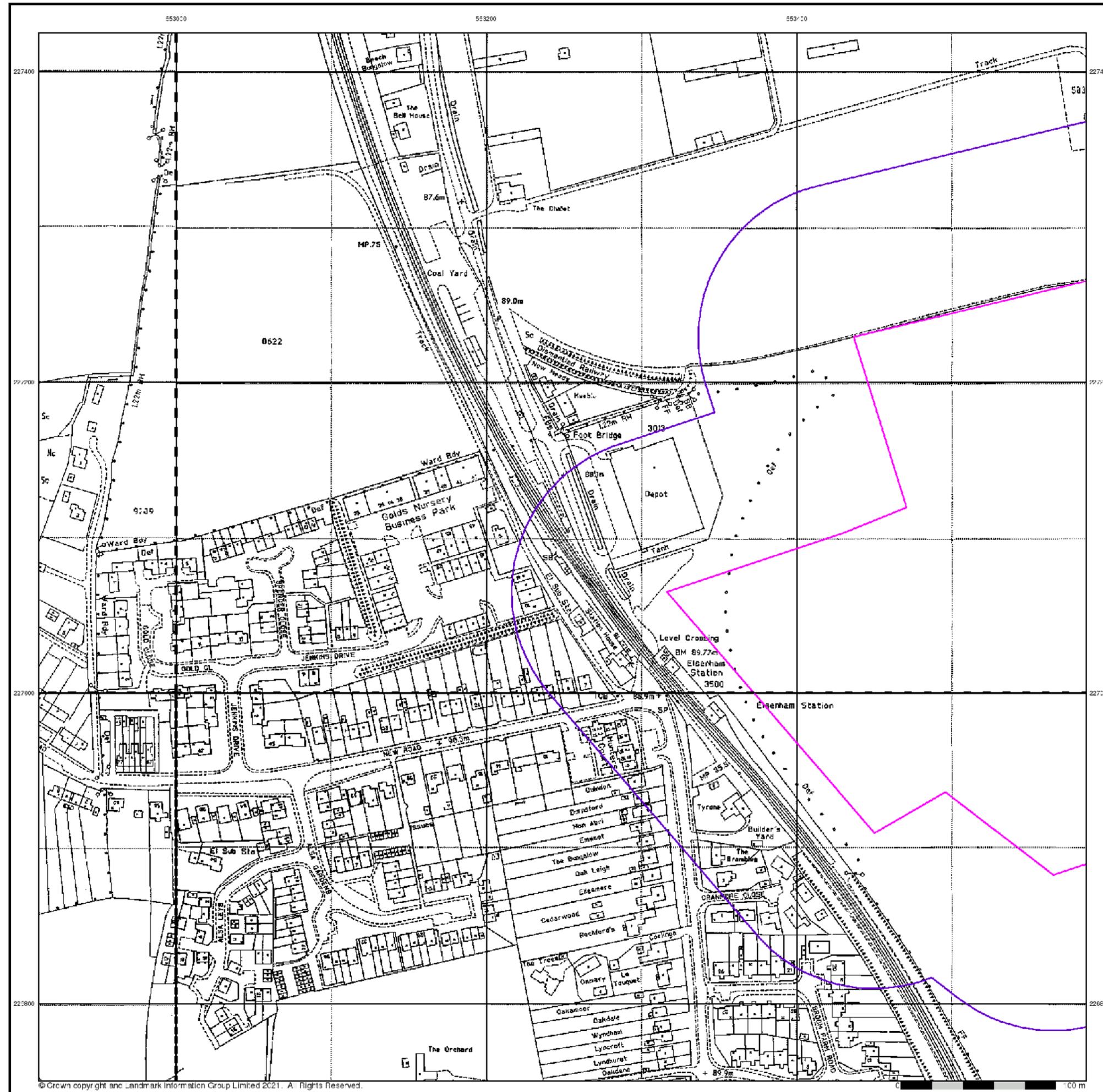
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 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

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## Large-Scale National Grid Data

Published 1993

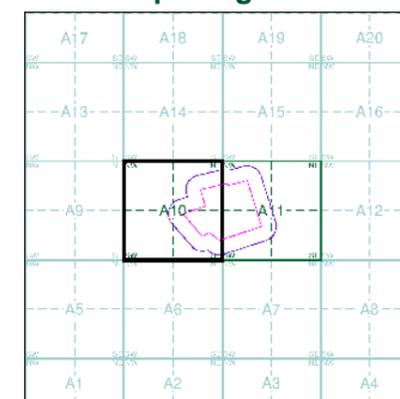
Source map scale - 1:2,500

'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)

TL5227 1993 1:2,500	TL5327 1993 1:2,500
TL5226 1993 1:2,500	TL5326 1993 1:2,500

### Historical Map - Segment A10



### Order Details

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
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 Web: www.envirocheck.co.uk



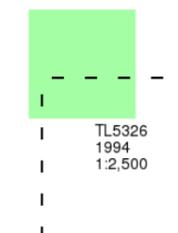
## Large-Scale National Grid Data

Published 1994

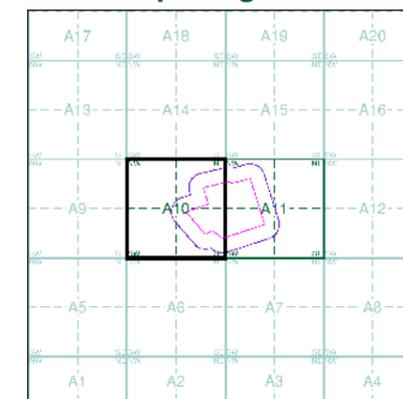
Source map scale - 1:2,500

'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)



### Historical Map - Segment A10



### Order Details

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

553000

553200

553400

227400

227400

227200

227200

227000

227000

226800

226800



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0 100 m

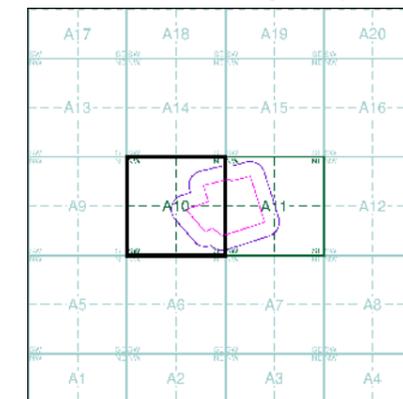


## Historical Aerial Photography

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 A10



#### Order Details

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

#### Site Details

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 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

# 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)**  
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**Direction of water flow**   **Bench Mark**   **Antiquity (site of)**  
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**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

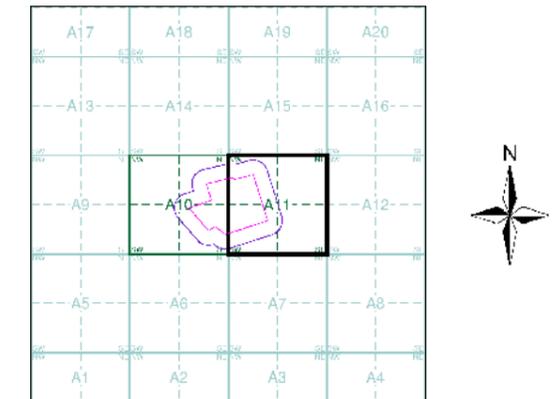
**Cliff**   **Slopes**   **Top**  
**Rock**   **Rock (scattered)**  
**Boulders**   **Boulders (scattered)**  
**Positioned Boulder**   **Scree**  
**Non-Coniferous Tree (surveyed)**   **Coniferous Tree (surveyed)**  
**Non-Coniferous Trees (not surveyed)**   **Coniferous Trees (not surveyed)**  
**Orchard 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
Essex	1:2,500	1875 - 1877	2
Essex	1:2,500	1897	3
Essex	1:2,500	1920	4
Ordnance Survey Plan	1:2,500	1970 - 1979	5
Additional SIMs	1:2,500	1978 - 1987	6
Ordnance Survey Plan	1:2,500	1981	7
Additional SIMs	1:2,500	1987 - 1992	8
Large-Scale National Grid Data	1:2,500	1993	9
Large-Scale National Grid Data	1:2,500	1994	10
Historical Aerial Photography	1:2,500	1999	11

## Historical Map - Segment A11



## Order Details

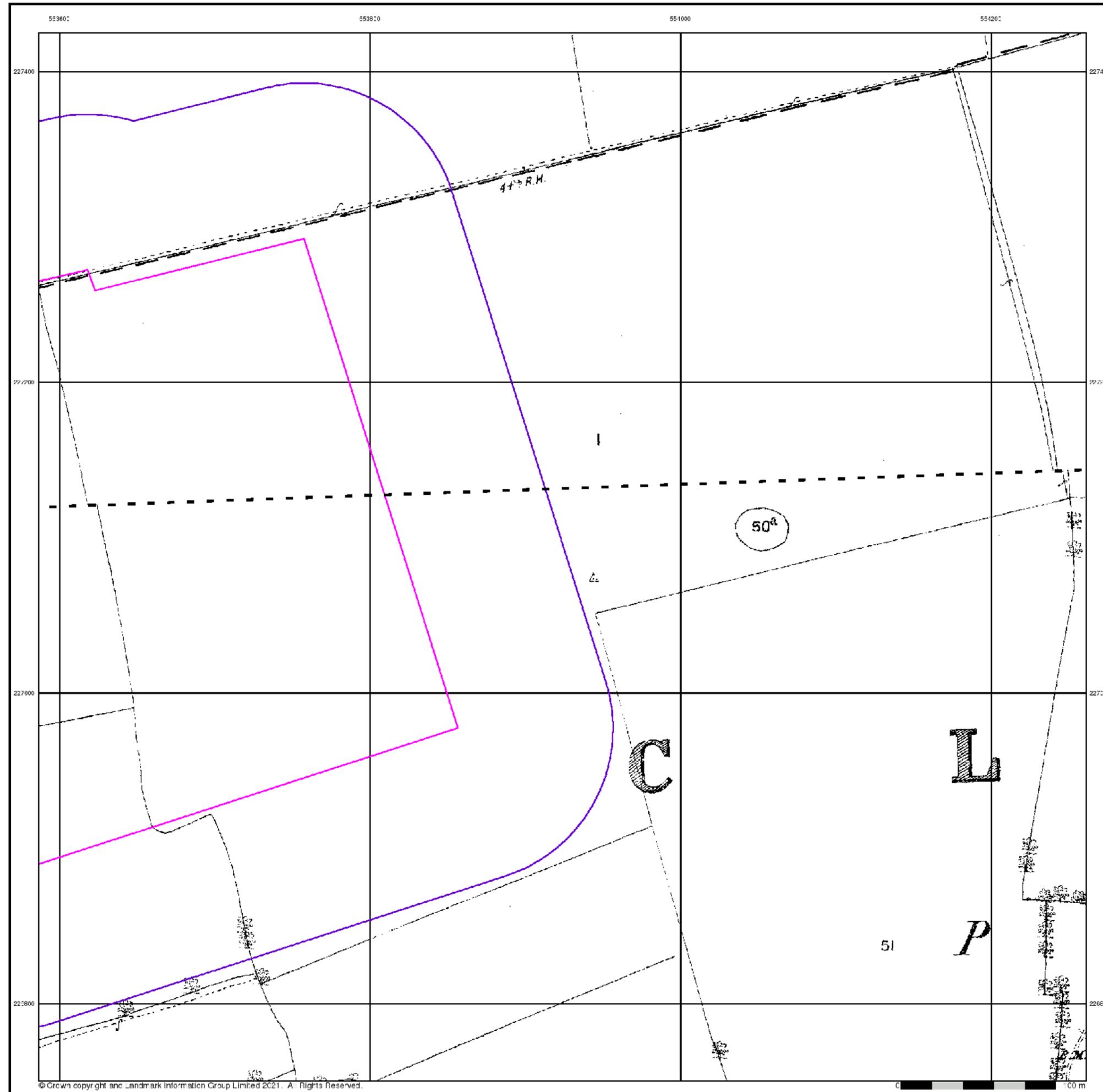
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

## Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



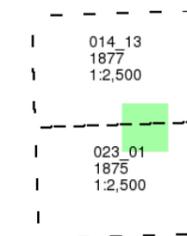
**Essex**

**Published 1875 - 1877**

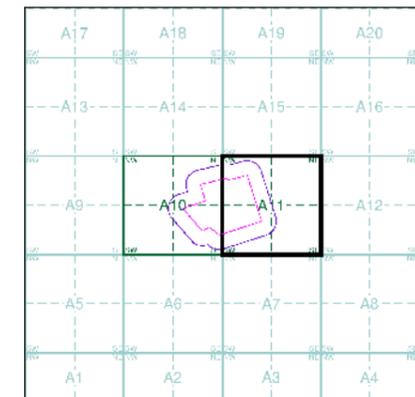
**Source map scale - 1:2,500**

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 A11**



**Order Details**

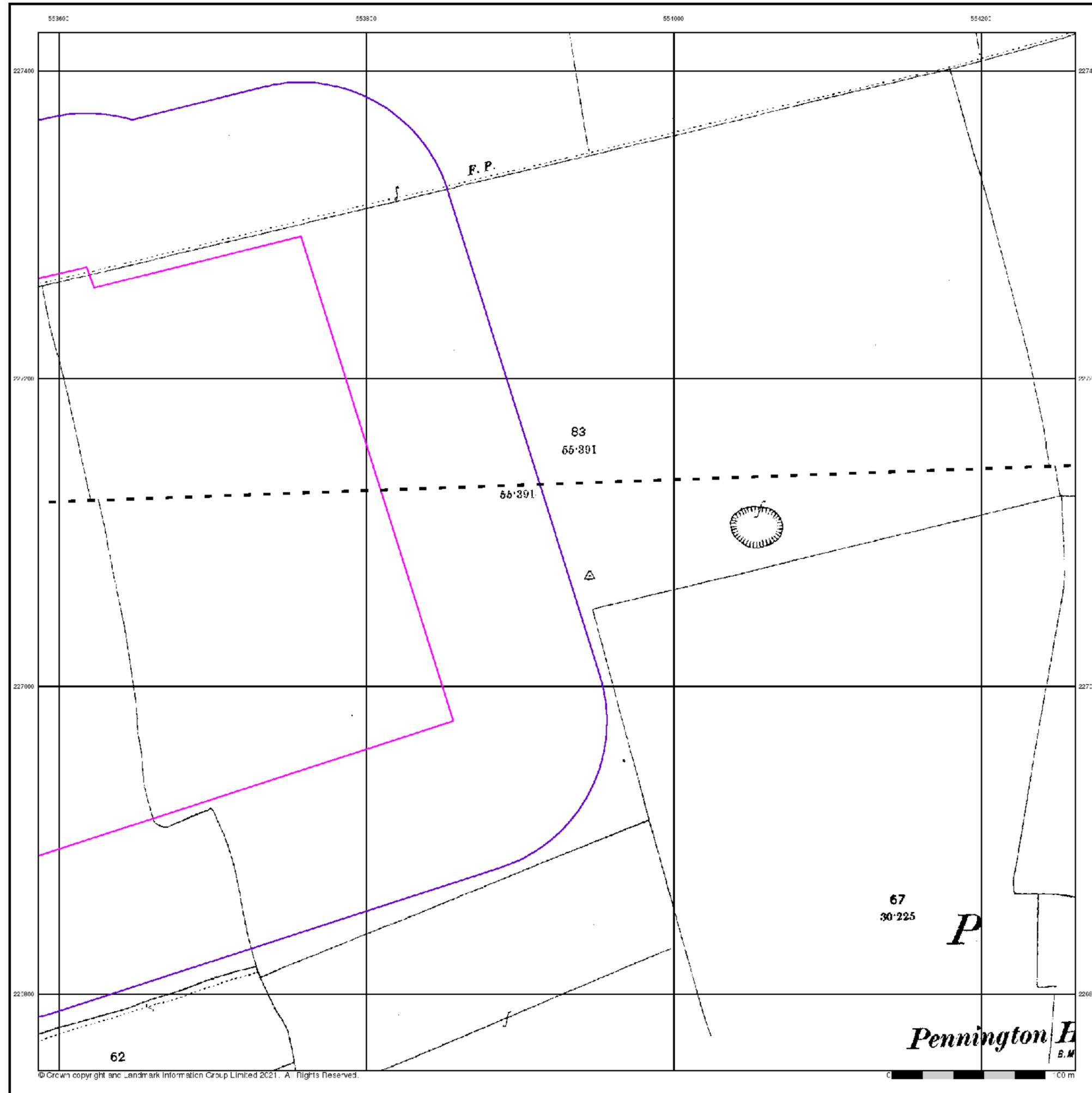
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

**Site Details**

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



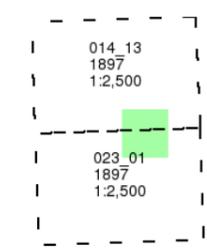
Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



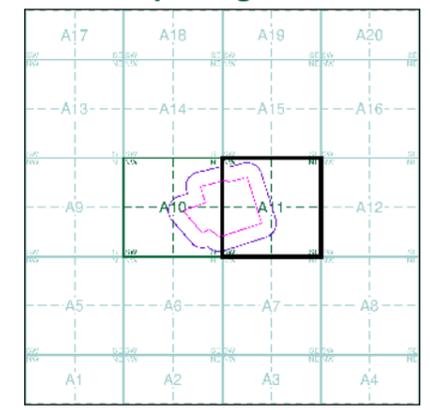
**Essex**  
**Published 1897**  
**Source map scale - 1:2,500**

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 A11**



**Order Details**

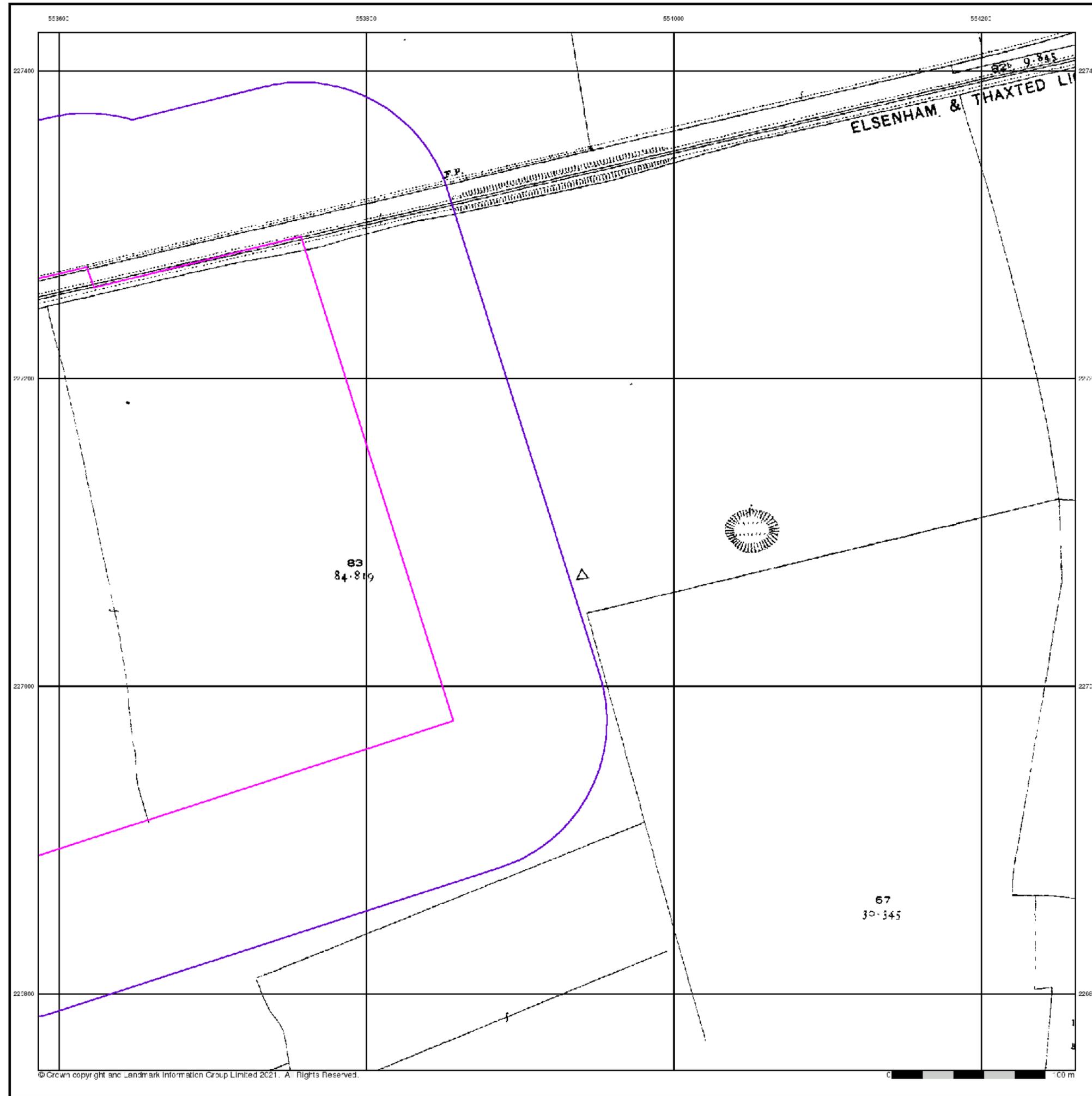
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

**Site Details**

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



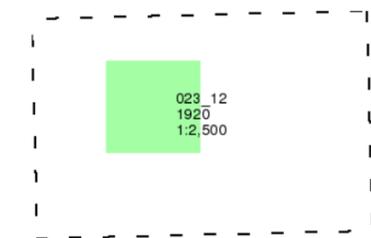
**Essex**

**Published 1920**

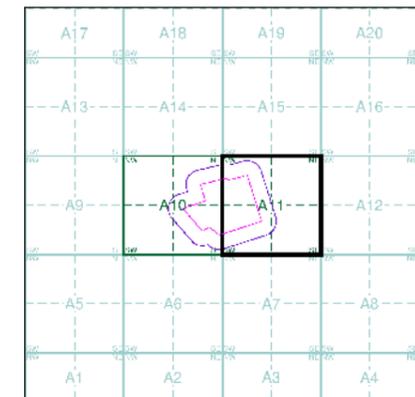
**Source map scale - 1:2,500**

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 A11**



**Order Details**

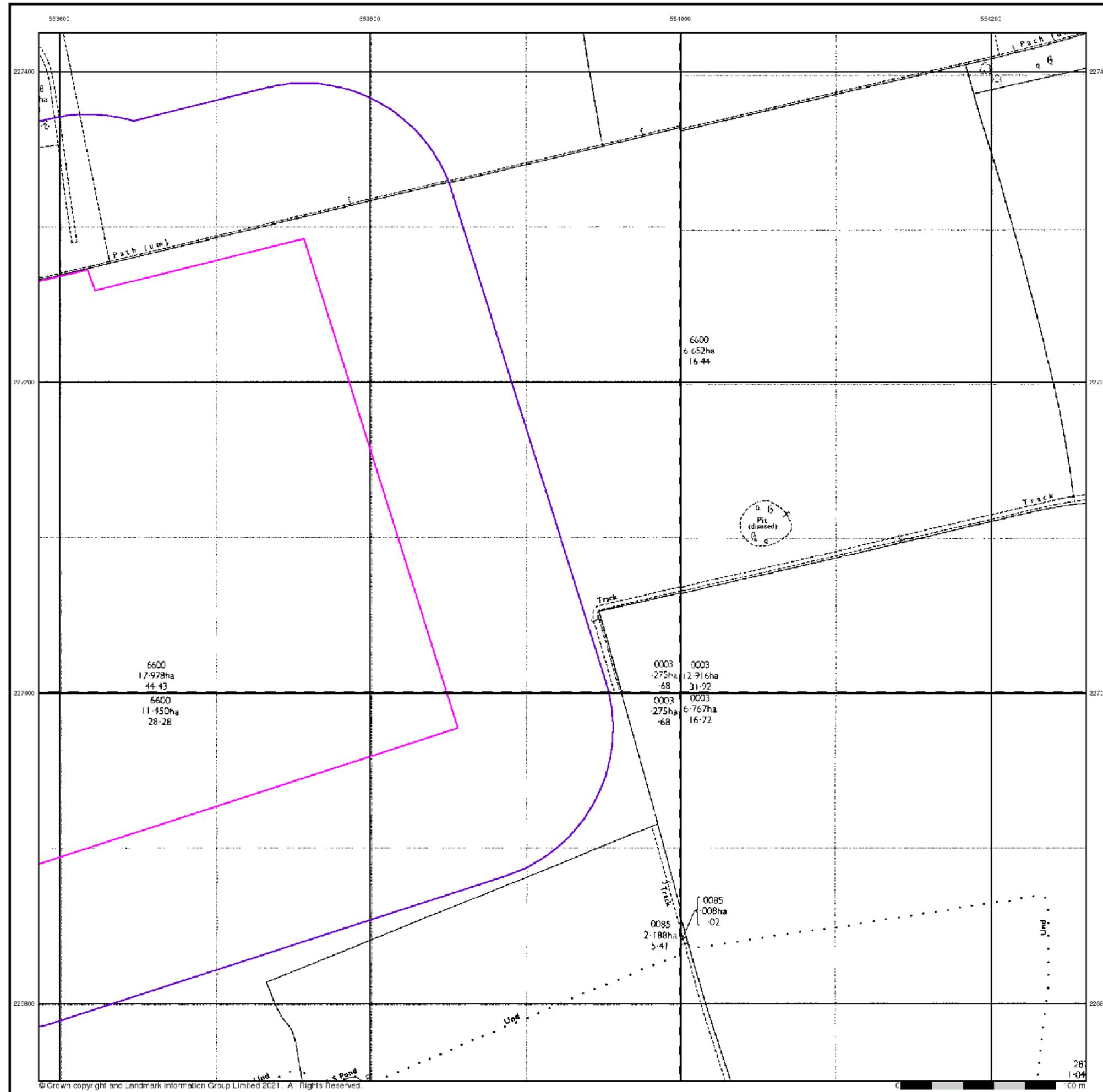
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
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**Site Details**

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Tel: 0844 844 9952  
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 Web: www.envirocheck.co.uk



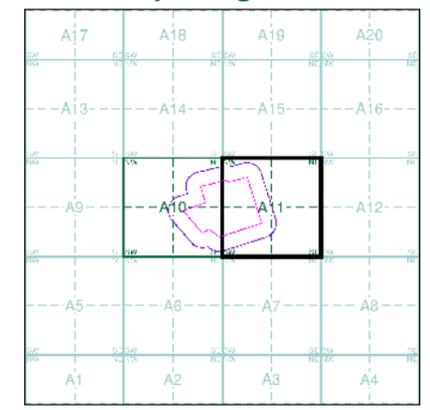
**Ordnance Survey Plan**  
**Published 1970 - 1979**  
**Source map scale - 1:2,500**

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)**

TL5327 1979 12,500	TL5427 1978 12,500
TL5326 1970 12,500	TL5426 1970 12,500

**Historical Map - Segment A11**



**Order Details**

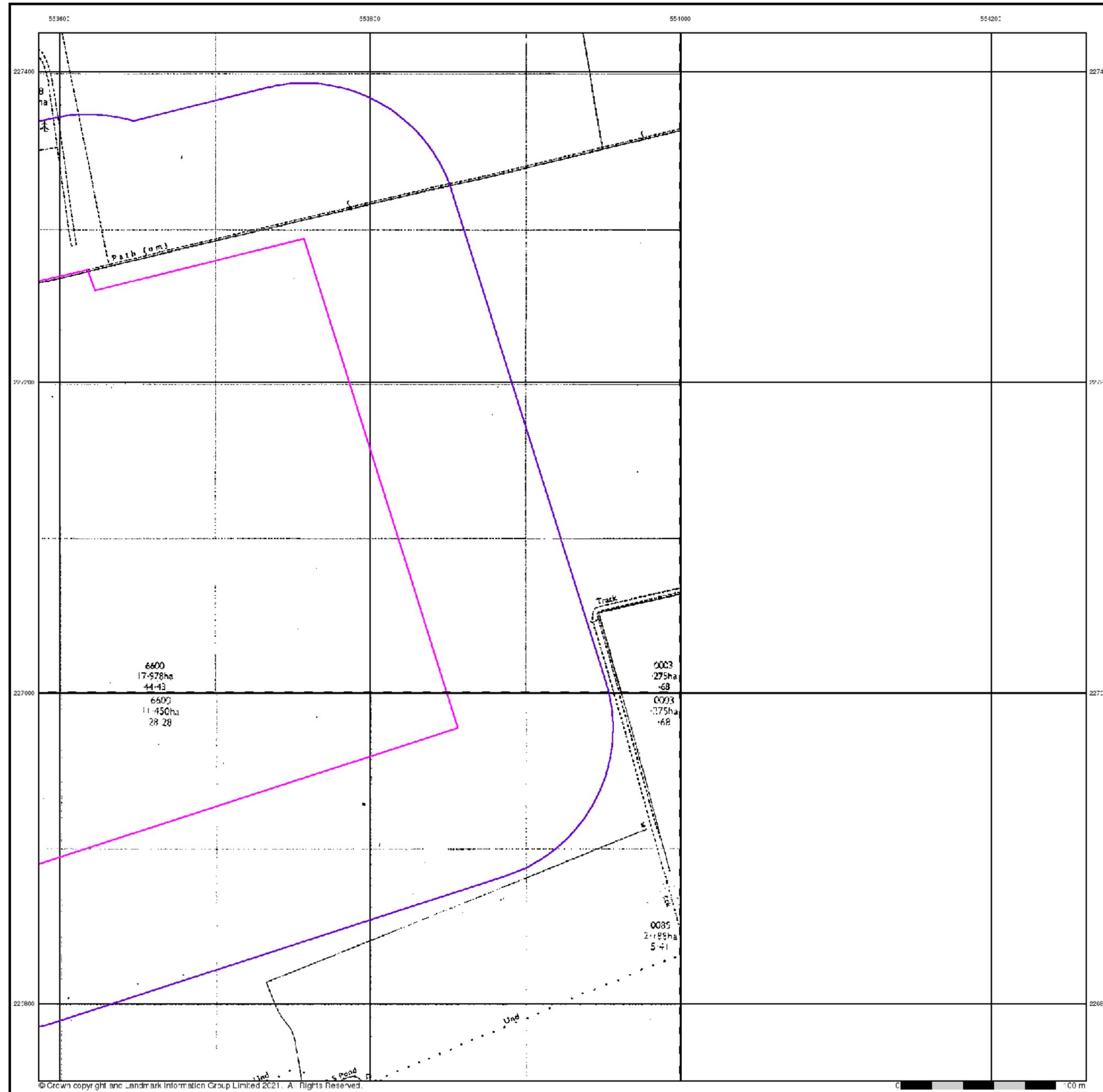
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

**Site Details**

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 Web: www.envirocheck.co.uk



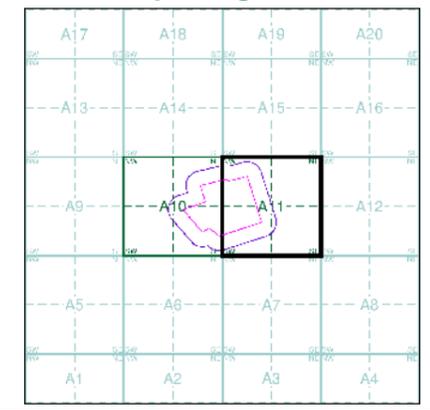
**Additional SIMs**  
**Published 1978 - 1987**  
**Source map scale - 1:2,500**

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

**Map Name(s) and Date(s)**

TL5327	1987	1:2,500
TL5326	1978	1:2,500

**Historical Map - Segment A11**



**Order Details**

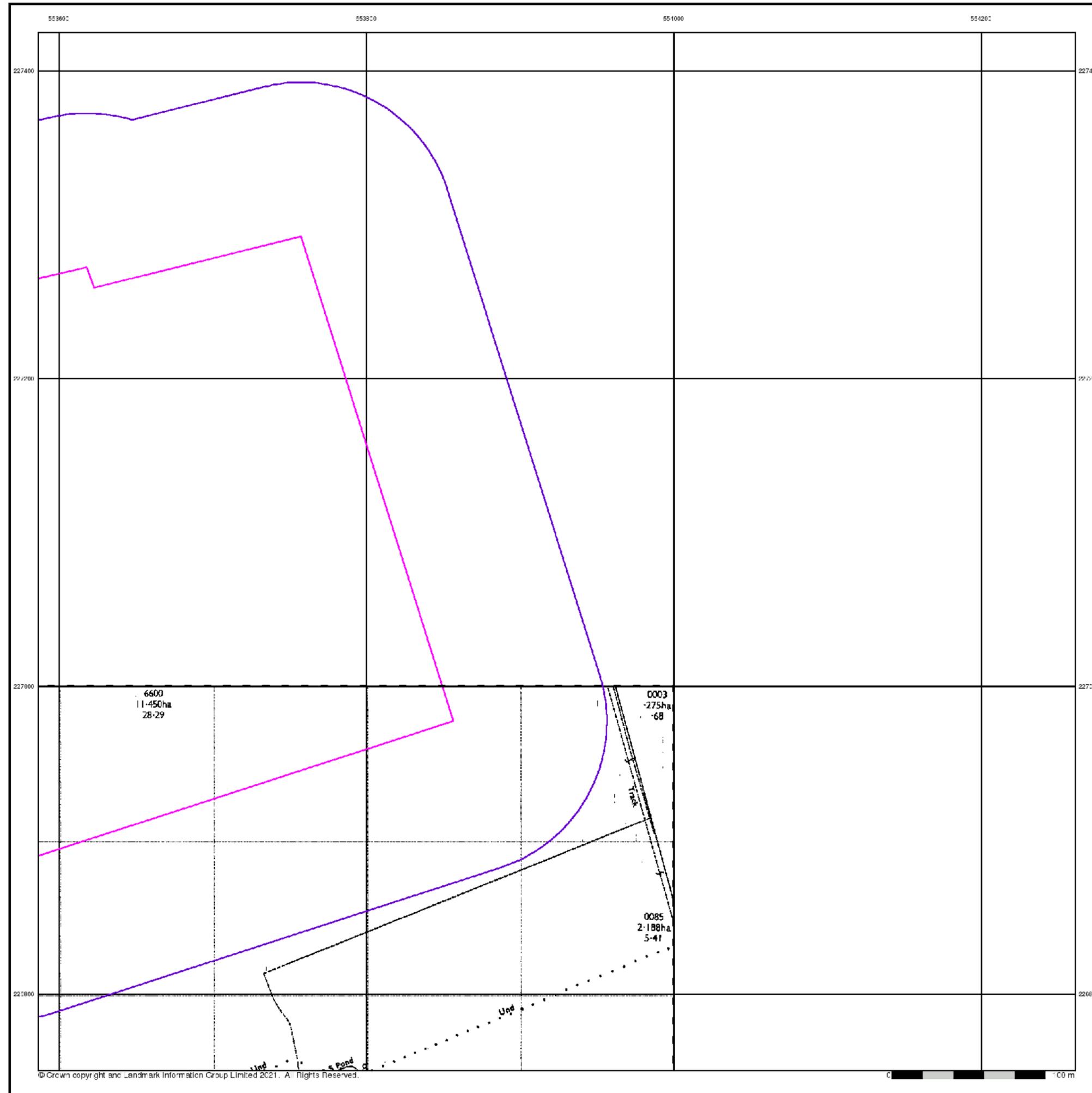
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
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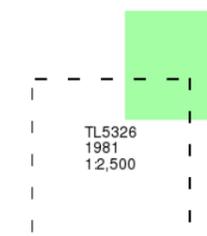
## Ordnance Survey Plan

Published 1981

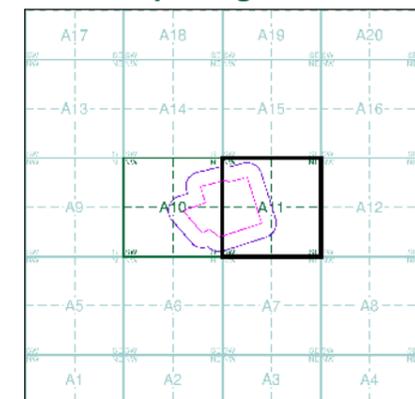
Source map scale - 1:2,500

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 A11



### Order Details

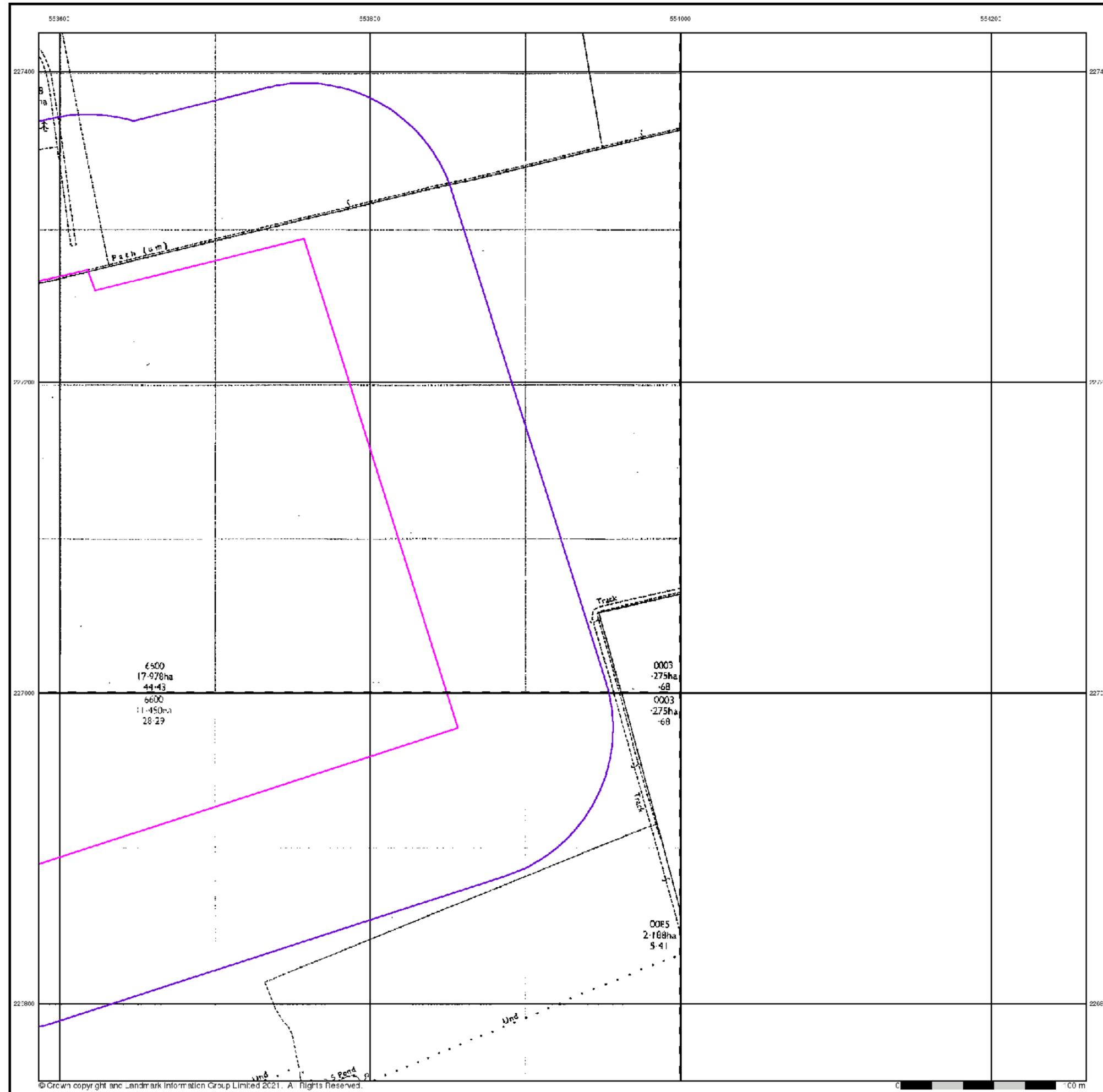
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



**Additional SIMs**

**Published 1987 - 1992**

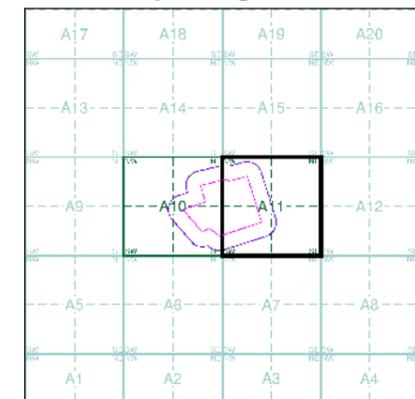
**Source map scale - 1:2,500**

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

**Map Name(s) and Date(s)**

TL5327	1992	1:2,500
TL5326	1987	1:2,500

**Historical Map - Segment A11**



**Order Details**

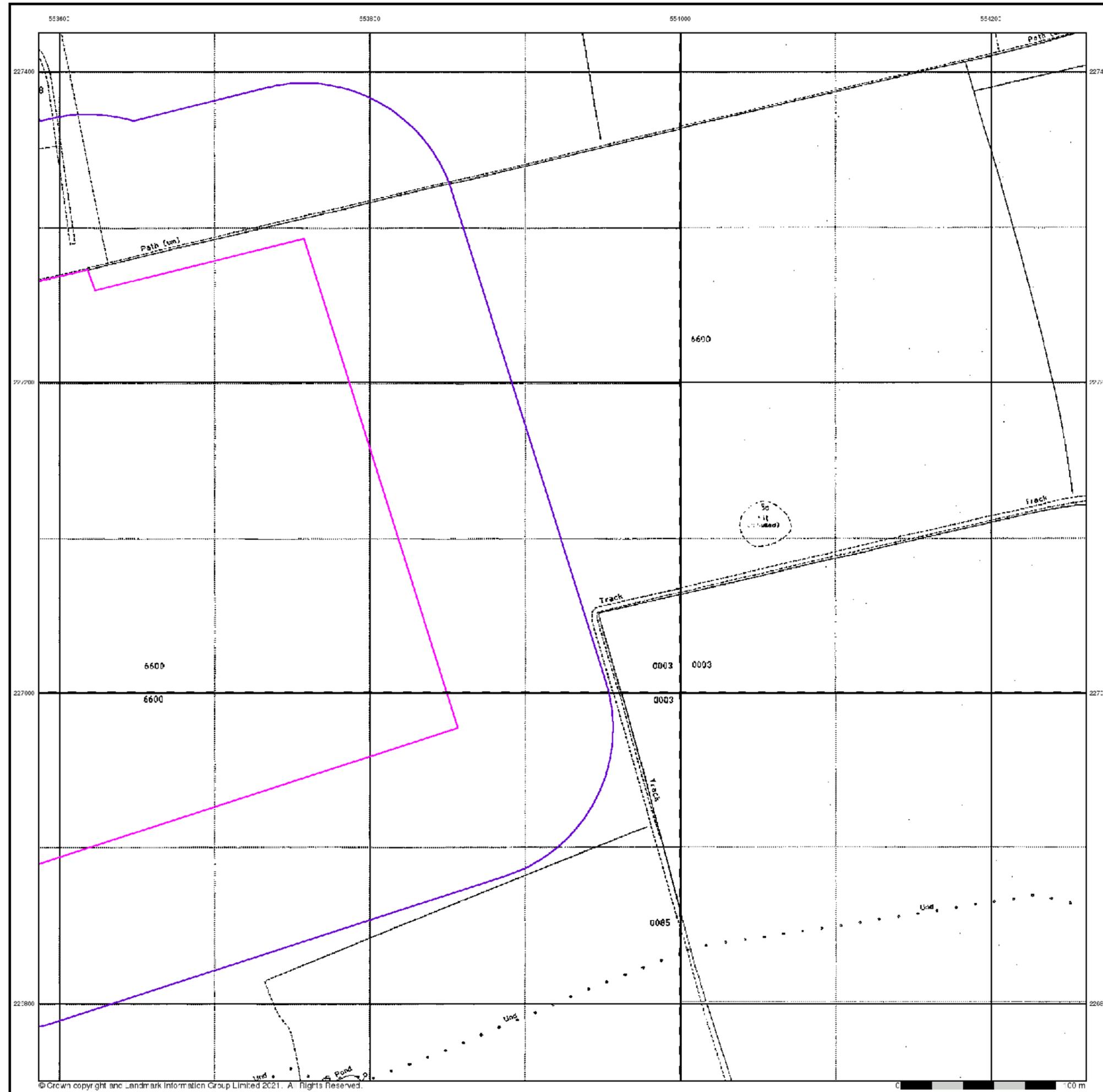
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

**Site Details**

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 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



## Large-Scale National Grid Data

Published 1993

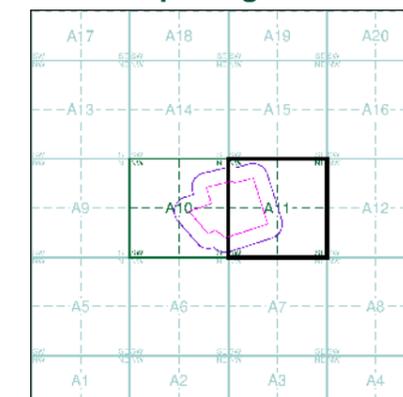
Source map scale - 1:2,500

'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)

TL5327 1993 1:2,500	TL5427 1993 1:2,500
TL5326 1993 1:2,500	TL5426 1993 1:2,500

### Historical Map - Segment A11



### Order Details

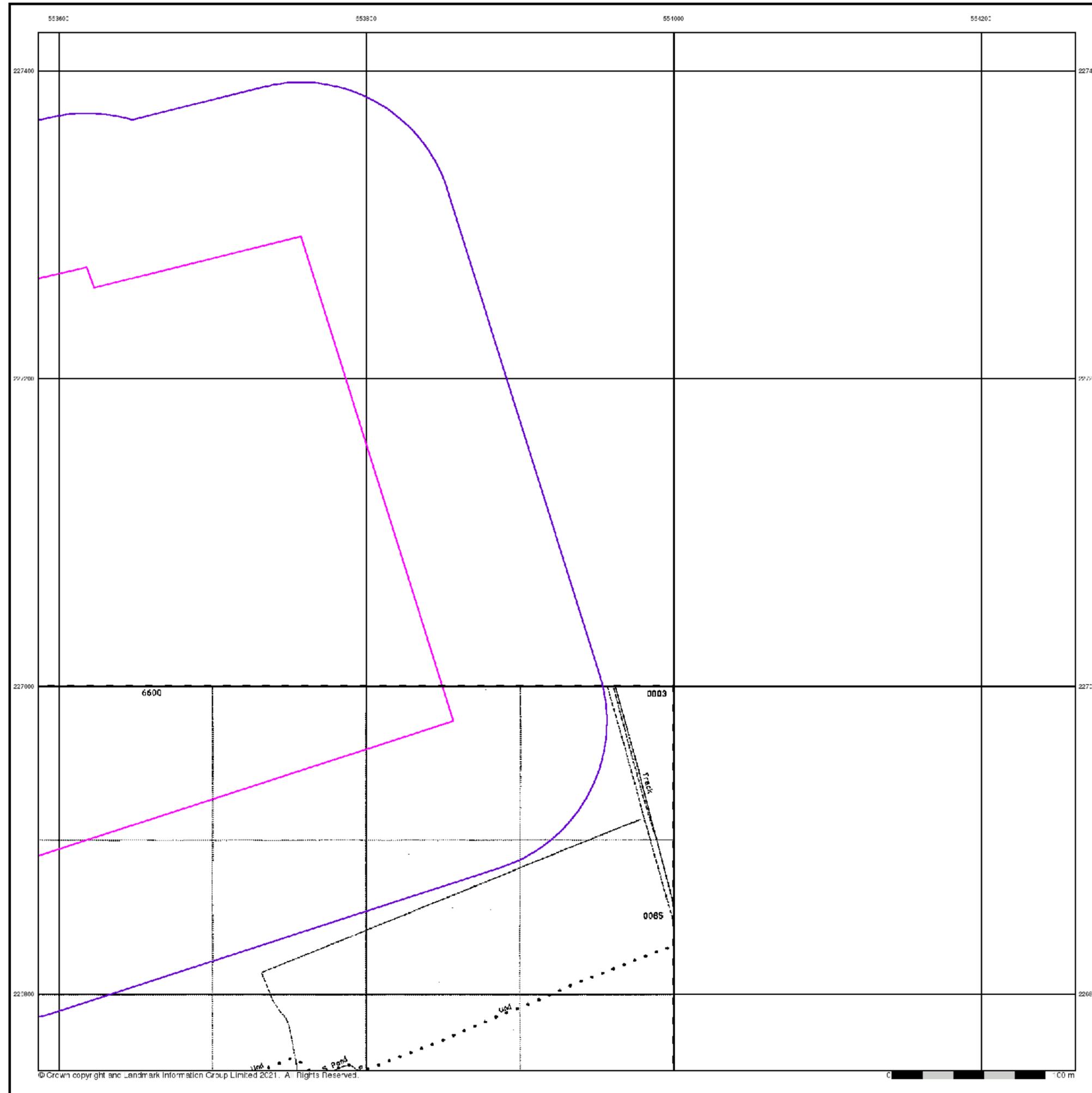
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



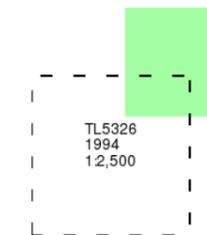
## Large-Scale National Grid Data

Published 1994

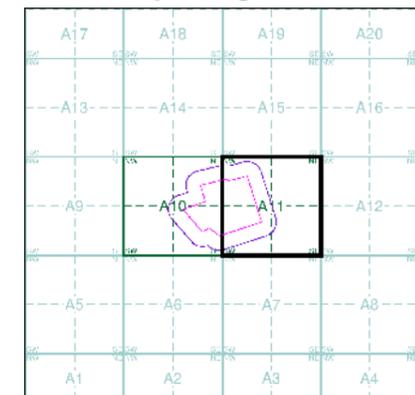
Source map scale - 1:2,500

'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)



### Historical Map - Segment A11



### Order Details

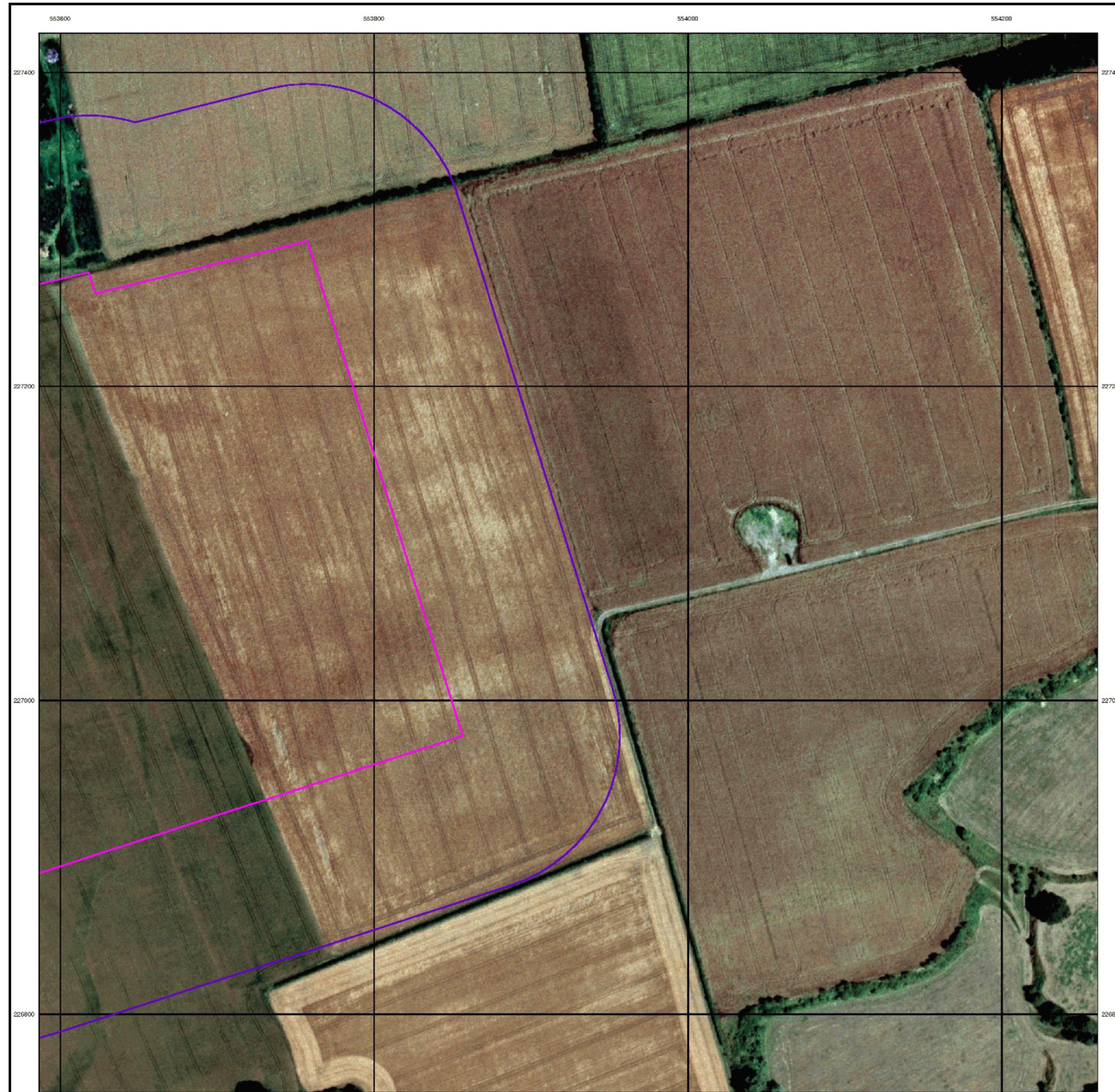
Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

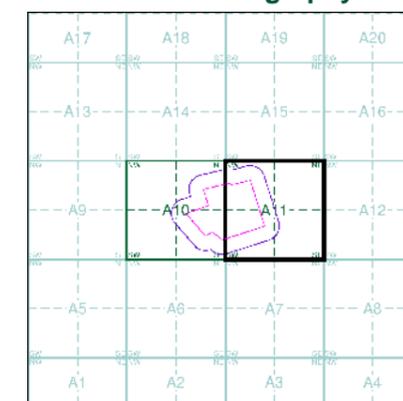


## Historical Aerial Photography

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 A11



### Order Details

Order Number: 285338568\_1\_1  
 Customer Ref: 70084697-301  
 National Grid Reference: 553600, 227080  
 Slice: A  
 Site Area (Ha): 13.74  
 Search Buffer (m): 100

### Site Details

Homebrands Ltd, Old Mead Road, ELSENHAM, CM22 6JL



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



# Appendix F

## UXO ASSESSMENT



# UNEXPLODED BOMB RISK MAP



## SITE LOCATION

Map Centre: 553567,226904



## LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.

- military**
- industry**
- UXO find**
- transport**
- dock**
- Luftwaffe targets**
- utilities**
- Bombing decoy**
- other**

### How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment\* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment\* is necessary.

### What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

**Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.**

### If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

### If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

\*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

Waylett, Alice

From: Abi Newton [REDACTED]  
Sent: 10 November 2021 17:12  
To: Waylett, Alice  
Cc: Research; Uxo  
Subject: RE: PDSA Elsenham CM22 6JL

Good afternoon Alice

Please find our PDSA below as requested. Any further queries, don't hesitate to contact us.

	
Pre-Desk Study Assessment	
Site:	Land off Old Mead Road, Elsenham, Essex
Client:	WSP
Contact:	Alice Waylett
Date:	10 <sup>th</sup> November 2021
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Transport infrastructure and public utilities.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified on the Site. 1No. military camp was established on land adjacent of the Site. It accommodated a number of troops including the Royal Horse Artillery (RHA).
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Military camps and training areas. ■ Transport infrastructure and public utilities. ■ Royal Air Force (RAF) Stansted Mountfitchet. ■ Anti-Aircraft (AA) and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	None identified.
WWII Bombing	During WWII the Site was located in the Rural District (RD) of Saffron Walden, which officially recorded 549No. High Explosive (HE) bombs with a bombing density of 7 bombs per 405 hectares (ha).  Readily available records have been found to indicate that several HE bombs fell in close proximity to the Site.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	It is recommended that a detailed desk study is commissioned to assess, and potentially zone, the Unexploded Ordnance (UXO) hazard level on the Site.
Further information	For information about Zetica's detailed UXO desk studies and other UXO services, please visit our website: <a href="http://www.zeticauxo.com">www.zeticauxo.com</a> .  Details and downloadable resources covering the most common sources of UXO hazard affecting sites in the UK can be found <a href="#">here</a> .  If you have any further queries, please don't hesitate to get in contact with us at <a href="mailto:uxo@zetica.com">uxo@zetica.com</a> or 01993 886 682.
This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.	
It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.	

Many thanks



Abi Newton  
Lead Risk Assessor  
Zetica Limited

**2021 ZETICA BROCHURE**

[Click here to view](#)

Mental Health First Aider  
MHFA England

From: Abi Newton [REDACTED]  
Sent: 08 November 2021 16:00  
To: Waylett, Alice [REDACTED] >  
Cc: Research <[Research@zetica.com](mailto:Research@zetica.com)>; Uxo <[Uxo@zetica.com](mailto:Uxo@zetica.com)>  
Subject: RE: PDSA Elsenham CM22 6JL

Good afternoon Alice

That's not a problem, we'll endeavour to get this to you by COB on Thursday at the latest.

Many thanks

Abi

Abi Newton  
Lead Risk Assessor  
Zetica Limited



**2021 ZETICA BROCHURE**

[Click here to view](#)

Mental Health First Aider  
MHFA England

From: Waylett, Alice [REDACTED]  
Sent: 08 November 2021 15:40  
To: Abi Newton [REDACTED]  
Cc: Research <[Research@zetica.com](mailto:Research@zetica.com)>; Uxo <[Uxo@zetica.com](mailto:Uxo@zetica.com)>  
Subject: PDSA Elsenham CM22 6JL

Hi Abi

Hope you are well

Would it be possible to complete a PDSA on the attached site at Elsenham CM22 6JL please?

Would you have any availability to have a look over the next few days at all, we are hoping to issue our report by the end of this week.

Please let me know if you need any more information

Kind Regards

Alice

**Alice Waylett**  
Senior Geo-Environmental Consultant



T +44 (0) 1992 526067  
F +44 (0) 1992 526000  
M +44 [REDACTED]

Unit 9, The Chase,  
John Tate Road, Hertford,  
SG13 7NN

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-LAEmHhHzdJzBITWfa4Hgs7pbKI

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# Appendix G

CORRESPONDANCE



# Appendix G.1

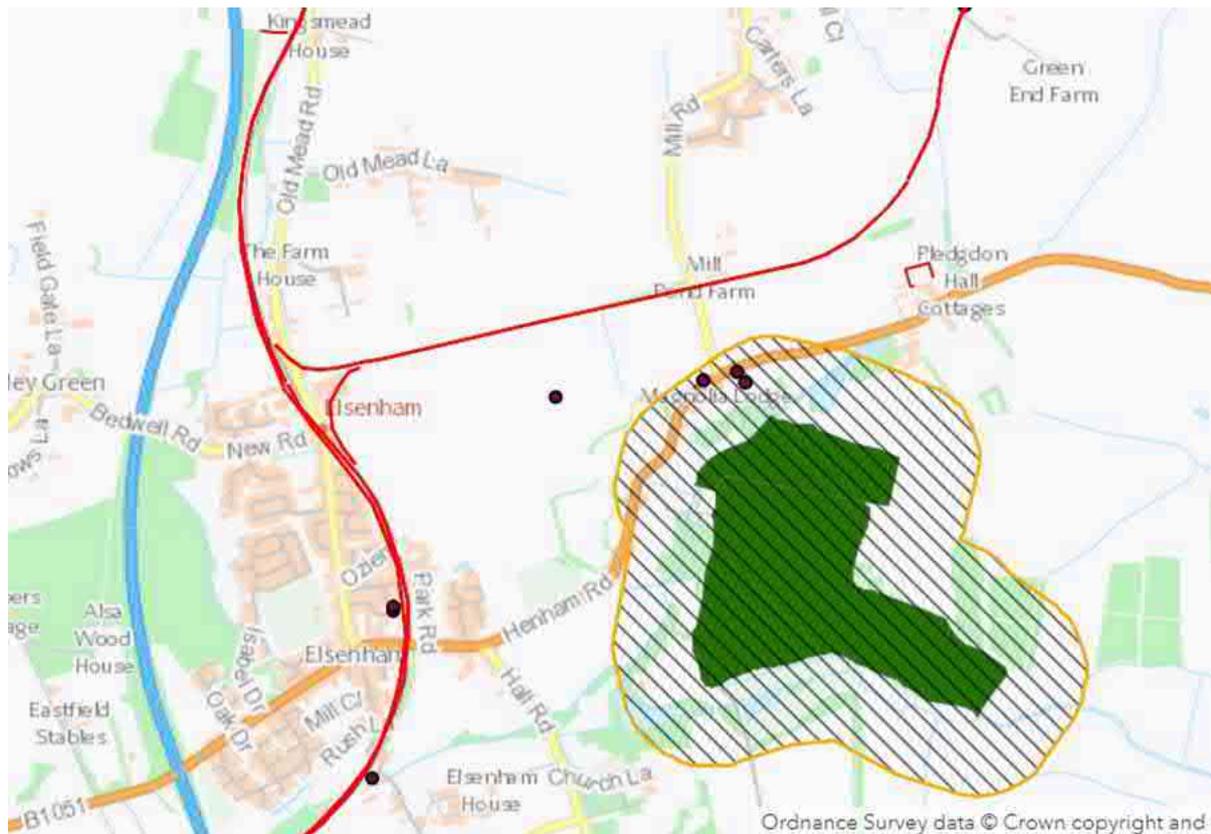
CONTAMINATED LAND OFFICER



**From:** Andy Bonham [REDACTED]  
**Sent:** 22 October 2021 11:38  
**To:** John, Sam [REDACTED]  
**Subject:** RE: [External] Contaminated Land Enquiry- Land East of Station Rd, Elsenham

Dear Sirs,

I have answered your queries below and I have included a screen shot showing possible contaminating land uses for ease of reference.



Regards

*Andy Bonham  
Senior Environmental Health Officer  
Uttlesford District Council  
London Road  
Saffron Walden  
Essex  
CB11 4ER  
Tel- 01799 510599  
E: [REDACTED]*

[REDACTED]  
[REDACTED]  
[REDACTED]

**As a result of the Covid pandemic Uttlesford District Council Environmental Health Service is working remotely, away from the office for the foreseeable future. While we aim to deliver our services as best we can, complaints will be prioritised and there may be some delays in response and actions due to the ongoing coronavirus situation. We aim to respond to emails within 3 working days.**

**Thank you for your patience and understanding.**

**From:** John, Sam <[REDACTED]>  
**Sent:** 24 September 2021 11:41  
**To:** Environmental Health <[EnvironmentalHealth@uttlesford.gov.uk](mailto:EnvironmentalHealth@uttlesford.gov.uk)>  
**Subject:** [External] Contaminated Land Enquiry- Land East of Station Rd, Elsenham

FAO: Contaminated Land Officer

Good morning,

### **Contaminated Land Enquiry – Land East of Station Rd, Elsenham**

WSP are currently undertaking a Preliminary Risk Assessment on the above site (please see attached plan) and I would be grateful if you could supply me with any environmentally pertinent information you may have with regards to the following;

- Any landfill sites within 1000 metres; **Yes, Greenham Construction Materials Limited, Henham Road, Elsenham**
- Any private water supplies within 500 metres; **No**
- Any Part B Processes (or equivalent) within 500 metres; **No**
- Any reason to believe the site is contaminated or has the site been remediated; **There are areas of historic land use that indicate potential contamination and we are not aware of any remediation. Red lines are railway lines. The green area is Greenham Construction landfill site with a 250m zone in hatched. Black dots are historical land use points of quarrying or unknown filled ground**
- Has the site ever been the source of public complaint? **No complaints have been received.**
- Is the site to be investigated under the Part IIA contaminated land regime? **I can confirm this site has not been risk rated by this Authority as contaminated land under part 2A Environmental Protection Act 1990. The site is viewed as a low priority for determination and no action is proposed for the site.**
- Are there any other environmental issues associated with the above named site? We are specifically interested in anything that could have led to contamination of soil or groundwater either beneath the site or in the surrounding area? **None**

Please do not hesitate to contact me if you require any further information, my contact details are listed below. I understand that there may be a charge for this information and would be grateful if you could contact me advising me of the costs and how this can be paid.

Kind Regards,  
Sam

**From:** Nayna Daudia [REDACTED]  
**Sent:** 1st October 2021 08:58  
**To:** John, Samuel [REDACTED]  
**Subject:** RE: [External] FW: Receipt WPSR00337160 Contaminated Land Enquiry, Land East of Station Rd, Elsenham

Good morning Mr John

Thank you for your email received this morning with the receipt of payment attached. I will log this onto our system and allocate your request to one of our Officers to assess/action and respond.

Thank you  
Regards

Nayna D  
Nayna Daudia  
Environmental Health Protection Team Admin  
Uttlesford District Council  
Council Office  
London Road  
Saffron Walden  
Essex  
CB11 4ER

Tel: 01799 510482  
Email: [REDACTED]  
[environmentalhealth@uttlesford.gov.uk](mailto:environmentalhealth@uttlesford.gov.uk)

Web: [REDACTED]

**P Please consider the environment before printing this email**

**In line with government advice relating to the COVID-19 pandemic, the Uttlesford District Council Environmental Health Service is working remotely, away from the office for the foreseeable future. Please be aware that whilst every attempt will be made to log and act on complaints we are managing this crisis with reductions in staff due to sickness, isolation and caring responsibilities. While we aim to deliver our services as best we can, complaints will be prioritised and there may be some delays in response and actions due to the ongoing coronavirus situation. Thank you for your patience and understanding**

**From:** John, Samuel [REDACTED]  
**Sent:** 30<sup>th</sup> September 2021 16:44  
**To:** Nayna Daudia [REDACTED]  
**Subject:** FW: Receipt WPSR00337160 Contaminated Land Enquiry, Land East of Station Rd, Elsenham

Hi Nayna,

Just writing to confirm the payment for the Information as per my previous email has been completed, please let me know you have received this and will collect the information.

Kind Regards,  
Sam



**Sam John**

Graduate Geo-Environmental Consultant

MGeol (Hons)

he / him

M+ (0) [REDACTED]

WSP in the UK  
Unit 9, The Chase  
John Tate Road  
Hertford  
SG13 7NN

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**From:** [Uttlesford DC payments@civicaepay.co.uk](mailto:Uttlesford_DC_payments@civicaepay.co.uk) <[Uttlesford DC payments@civicaepay.co.uk](mailto:Uttlesford_DC_payments@civicaepay.co.uk)>

**Sent:** 30 September 2021 16:39

**To:** John, Sam [REDACTED]

**Subject:** Receipt WPSR00337160

**Receipt Details**

Payment made to:  
Uttlesford DC  
Council Offices  
London Road  
Saffron Walden  
Essex  
CB11 4ER

**Card holder details:**

W S P UK LTD  
3 WHITEROSE OFFICE PARK MILLSHAW P  
LEEDS  
LS11 0DL

Receipt number	WPSR00337160
Authorisation code	T09173
Merchant Number	**53434
Terminal ID	****1662



Essex  
CB11 4ER

Tel: 01799 510482

Email: [REDACTED]  
[environmentalhealth@uttlesford.gov.uk](mailto:environmentalhealth@uttlesford.gov.uk)

Web: [REDACTED]

**P Please consider the environment before printing this email**

**In line with government advice relating to the COVID-19 pandemic, the Uttlesford District Council Environmental Health Service is working remotely, away from the office for the foreseeable future. Please be aware that whilst every attempt will be made to log and act on complaints we are managing this crisis with reductions in staff due to sickness, isolation and caring responsibilities. While we aim to deliver our services as best we can, complaints will be prioritised and there may be some delays in response and actions due to the ongoing coronavirus situation. Thank you for your patience and understanding**

**From:** John, Samuel [REDACTED]

**Sent:** 24<sup>th</sup> September 2021 11:41

**To:** Environmental Health <environmentalhealth@uttlesford.gov.uk>

**Subject:** Contaminated Land Enquiry – Land East of Station Rd, Elsenham

FAO: Contaminated Land Officer

Good morning,

### **Contaminated Land Enquiry – Land East of Station Rd, Elsenham**

WSP are currently undertaking a Preliminary Risk Assessment on the above site (please see attached plan) and I would be grateful if you could supply me with any environmentally pertinent information you may have with regards to the following;

- Any landfill sites within 1000 metres;
- Any private water supplies within 500 metres;
- Any Part B Processes (or equivalent) within 500 metres;
- Any reason to believe the site is contaminated or has the site been remediated;
- Has the site ever been the source of public complaint?
- Is the site to be investigated under the Part IIA contaminated land regime?
- Are there any other environmental issues associated with the above named site? We are specifically interested in anything that could have led to contamination of soil or groundwater either beneath the site or in the surrounding area?

Please do not hesitate to contact me if you require any further information, my contact details are listed below. I understand that there may be a charge for this information and would be grateful if you could contact me advising me of the costs and how this can be paid.

Kind Regards,  
Sam

| Sam John



Graduate Geo-Environmental Consultant  
MGeol (Hons)  
*he / him*

M+ (0) [REDACTED]

WSP in the UK  
Unit 9, The Chase  
John Tate Road  
Hertford  
SG13 7NN

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# Appendix G.2

BUILDING CONTROL OFFICER

---



**From:** John Farnell [REDACTED]  
**Sent:** 24 September 2021 16:00  
**To:** John, Samuel [REDACTED]  
**Subject:** Building Control Enquiry - Land East of Station Rd, Elsenham

Hi Sam,  
We have no Building Control records of any buildings on this site.  
We don't hold any of the other information you require.  
Regards  
John

John Farnell  
Building Control Team Leader  
Uttlesford District Council  
01799 510538  
[REDACTED]

**From:** John, Samuel [REDACTED]  
**Sent:** 24 September 2021 11:50  
**To:** Enquiries <uconnect@uttlesford.gov.uk>  
**Subject:** Building Control Enquiry - Land East of Station Rd, Elsenham

FAO: Building Control Officer

Good Morning,

### **Building Control Enquiry – Land East of Station Rd, Elsenham**

WSP are currently undertaking a Preliminary Risk Assessment on the above site (see attached plan) and I would be grateful if you could supply me with any of the following information:

- The ground conditions that underlie the site with regard to the natural geology and the presence of any worked or Made Ground;
- Any ground related risks in terms of ground instability or radon;
- Information on the current types of buildings on or within 500m of the site;
- Any basement structures or services tunnels that are likely to be present as part of a historic or existing structure;
- Any flood risk within the area;
- Specific requirements for foundations that would be required or recommended for development on this site.

Please do not hesitate to contact me if you require any further information, my contact details are listed below. I understand that there may be a charge for this information and would be grateful if you could contact me advising me of any costs.

Kind Regards,  
Sam



**Sam John**  
Graduate Geo-Environmental Consultant  
MGeol (Hons)

*he / him*

M+ (0) [REDACTED]

WSP in the UK  
Unit 9, The Chase  
John Tate Road  
Hertford  
SG13 7NN

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# Appendix G.3

ENVIRONMENT AGENCY



**From:** Enquiries\_EastAnglia [Enquiries\\_EastAnglia@environment-agency.gov.uk](mailto:Enquiries_EastAnglia@environment-agency.gov.uk)

**Sent:** 10<sup>th</sup> November 2021 11:47

**To:** John, Samuel [REDACTED]

**Subject:** Land East of Station Rd, Elsenham - Our ref: EAn/2021/234997

Dear Sam

Thank you for your enquiry of 24 September 2021. Please accept our apologies for the delay in responding. We thank you for your patience.

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Please see attached permit and associated documents in relation to the landfill site.

The site was originally permitted as a non-hazardous landfill but due to its' proximity to Stanstead airport it never took food waste or anything biodegradable, mainly just building waste but not truly inert as it did accept wood and plasterboard etc. Its' permit is held by Viridor but day-to-day is run by Ingrebourne Valley Limited.

There are no leachate or gas issues at the site.

We have identified the following pollution incidents within 500m of the area in question. Although there are four recorded incidents, you will see that two are duplicates and are separated because of the different pollutant types. The fourth relates to atmospheric pollution but is included for completeness. No incidents are recorded within the site boundary.

Notification ID	Notification date	National Grid Reference	Substantiated	Cause type	Incident cause	Pollutant type	Pollutant
1771059	19/01/2020	TL 53142 27549	Yes	Containment and Control Failure	Pipe Failure below ground	Sewage Materials	Crude Sewage
757566	01/03/2010	TL 53164 27304	Yes	Unauthorised Activity	Fly-Tipping	Specific Waste Materials	Vehicles and Vehicle Parts
757566	01/03/2010	TL 53164 27304	Yes	Unauthorised Activity	Fly-Tipping	Specific Waste Materials	Asbestos
1046547	11/10/2012	TL 54162 26654	Yes	Fires	Burning of Waste	Atmospheric Pollutants and Effects	Smoke

We are not currently aware of any land contamination issues, with respect of pollution to the water environment, relating to this site or within 500m. Please note that under Part 2A of the Environmental Protection Act 1990, Local Authorities are the lead authorities for inspection of potentially contaminated land within their areas. The Local Authority will hold a full list of entries in the register contained under Section 78R of Part 2A of the Environmental Protection Act 1990. For any enquiries regarding the register please contact the Local Authority.

There are no abstraction licences within 500m of the site. The nearest licences are approximately 1.1 km from the site in the Upper Lee area.

Abstractions are only licensed if they take 20 cubic metres or more of water per day. The Environment Agency does not hold records of unlicensed abstractions. Private water supplies are registered with the relevant local authority. The applicant should contact the relevant local authority for information on

private supplies within their search area. You can also search for onshore borehole records available on the British Geological Survey website.

The Environment Agency's water quality archive service can be accessed here:

[REDACTED]

and here:

[REDACTED]  
[REDACTED]

You can use the online service to download water quality data from across England.

Please find attached the borehole data from the nearest site: at TL52\_002 Elsenham.

This information is not available with the Open Government Licence but we may be able to license to you under the [REDACTED]

- **Groundwater Level Measurements (AfA075)**, – This dataset comprises groundwater level time series data taken at approximately 6000 borehole monitoring stations located across England and Wales. Discrete station information is stored for each site including identifier, spatial reference, parameter type and time series type. This dataset contains sites for operational and closed monitoring stations. Data is collected from Environment Agency borehole monitoring stations that are collated by Area staff normally by either downloading the station 'Logger Data' or manually 'Dipping' to determine borehole water level. This is a large dataset with high extraction costs, and we do not normally expect to supply it as a whole. Larger requests will be assessed against our normal procedures for charging for, and refusing access to information. If we receive a request for the entire dataset we would consider refusal, or a full cost of extraction charge.
- **Conditions** The location of observation boreholes must not be published to a resolution more detailed than 1km<sup>2</sup>.

However, you MUST first check the supporting information available online to determine if the conditions on use are suitable for your purposes. If they aren't, this information is not provided with a licence for use, and the data is provided for read right only.

You could also check for groundwater level information contained in onshore borehole records available here on the British Geological Survey website:

[REDACTED]

We are not aware of any soil or groundwater remedial works carried out at the site or within 500m. Details of any of our comments relating to planning applications within the area will be available on the local authority website.

We do not hold records of subsidence/instability. Information may be available from the British Geological Survey.

Unless stated otherwise, please refer to the Open Government Licence available here

[REDACTED] which explains the permitted use of this information.

Please get in touch if you have any further queries or contact us within two months if you would like us to review the information we have sent.

We deal with requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (EIR). The Act requires that we respond to requests by advising you whether or not information is held, and if so by providing you with that information.

EIR Regulation 3(2) states that information is held if it is in our possession and has been produced or received by us, or it is held by another person on our behalf at the time the request is received.

### **Information not held by us**

In this case, the information you have requested is not held by the Environment Agency, and we are therefore refusing your request on the grounds that there is no information we can provide.

Where a request is for environmental information, the Regulations allow us to refuse to disclose it if the exception at EIR Regulation 12(4)(a) applies. The regulation states that a public authority may refuse to disclose environmental information to the extent that it does not hold that information when an applicant's request is received.

It is not possible for us to conduct a public interest balancing test because the reason for non-disclosure is that the information is not held.

### **Information held by British Geological Survey**

We believe that the information you have requested is held by British Geological Survey. If you wish us to pass on your request please let me know. If you would rather approach that body yourself, the contacts details are:

British Geological Survey  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)

### **Rights of appeal**

If you are not satisfied you can contact us within 2 calendar months to ask for our decision to be reviewed. We shall review our response to your request and give you our decision in writing within 40 working days.

If you are still not satisfied following this, you can raise a concern with the Information Commissioner, who is the statutory regulator for Freedom of Information and the Environmental Information Regulations. The contact details are:

Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire  
SK9 5AF  
Tel: 0303 123 1113  
Website: [\[REDACTED\]](#)

Regards  
Teresa

Teresa Chapman  
Customers & Engagement Officer, Customers & Engagement Team,  
**Environment Agency** East Anglia Area

Internal use only: [EAn\\_C&E\\_Internal@environment-agency.gov.uk](mailto:EAn_C&E_Internal@environment-agency.gov.uk)  
External customers: [enquiries\\_eastanglia@environment-agency.gov.uk](mailto:enquiries_eastanglia@environment-agency.gov.uk)  
Internal: 55472  
External: 02030 255472

**From:** Enquiries\_EastAnglia <[enquiries\\_eastanglia@environment-agency.gov.uk](mailto:enquiries_eastanglia@environment-agency.gov.uk)>

**Sent:** 28 September 2021 14:16

**To:** John, Samuel [\[REDACTED\]](#)

**Subject:** RE: EAN/2021/234997 REF: 210924/KG13 Land East of Station Rd, Elsenham

Dear Sam

Thank you for your email of 24 September 2021.

We are liaising with our technical teams to gather the information you have requested and we will reply to you as soon as possible. This will be no later than 22 October 2021, which is in accordance with the Freedom of Information Act (2000) and the Environmental Information Regulations (2004).

Please note that our reply may be delayed as we are experiencing high volumes of enquiries at the moment. Whilst lockdown restrictions are now being lifted, government guidance means that the majority of our teams continue to work from home, and this can cause delays accessing data. Your request is important to us and we are working hard to provide responses to all of our customers. Thank you for your patience.

In addition you may be able to obtain some information from the internet, I have included details of how to access this data below:

[Flood map for Planning service](#)

[REDACTED]

This service is for developers and allows you to quickly determine which flood zone your potential development site is in using a postcode or grid reference. You can access standard advice and either download or request further information for the area of interest.

[Spatial Data Catalogue](#)

[REDACTED]

This is data from across the whole Defra group and shows all the data that is available either to request or for anyone to download. You can filter this by type and organisation, please be aware that this is not site specific.

[Data.gov](#)

[REDACTED]

This gives details of all the Government Data which is available, again either to download or request. If you click on the Data tab you can then filter or search for data as you need. This data is not site specific.

[Professional Partner Catalogue](#)

[REDACTED]

This is the data which we share with our professional partners like County Councils, Local Authorities, Utility Companies etc.

You will need to register to be able to access and download data, however you can cut to the area you want and there is information which you cannot get elsewhere.

**What's In Your BackYard (WIYBY) is no longer available.**

Most of the data is still available via other sharing services such as [REDACTED] and new [REDACTED]. Where the datasets are no longer available as maps, you will be able to download and use within specialist applications.

To find out all the services the Environment Agency have available, please [click](#) [REDACTED]

If you have been able to access the data you require and no longer need us to answer your information request please let us know.

For any other enquiries please send your request to us at:

[Enquiries\\_EastAnglia@environment-agency.gov.uk](mailto:Enquiries_EastAnglia@environment-agency.gov.uk).

If we can be of further help in this matter, please contact us on 0203 02 55472.

Yours sincerely

Stephanie

Stephanie Fullwood  
Customers & Engagement Officer, Customers & Engagement Team, East Anglia Area

[enquiries\\_eastanglia@environment-agency.gov.uk](mailto:enquiries_eastanglia@environment-agency.gov.uk)

External: 0203 0255472

**From:** Kayleigh Goodison <[enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)>

**Sent:** 24 September 2021 15:22

**To:** John, Samuel [REDACTED]

**Subject:** REF: 210924/KG13 Land East of Station Rd, Elsenham

Good Afternoon Sam,

I have passed your e-mail to the local customer team who will deal with your request.

The Freedom of Information Act and Environmental Information Regulations state that a public authority must respond to requests for information within 20 working days.

You can find more information about our service commitment by clicking on the link below:

[REDACTED]

You can contact our customer team directly on the contact details below, or call the National Customer Contact Centre on: 03708 506 506 who will transfer you to the area team.

Please quote your enquiry reference 210924/KG13 in any correspondence with us regarding this matter.

Customers and Engagement  
Environment Agency

East Anglia Area  
Bromholme Lane  
Brampton  
HUNTINGDON  
PE28 4NE

Kind Regards,

Kayleigh Goodison

Customer Service Adviser, National Customer Contact Centre  
Operations : Regulation, Monitoring & Customer  
Environment Agency

Tel: 03708 506 506

Web Site: [REDACTED]

Click an icon to keep in touch with us:-



**From:** John, Samuel <samuel.john@wsp.com>

**Sent:** 24 September 2021 11:50

**To:** Enquiries, Unit <[enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)>

**Subject:** Land East of Station Rd, Elsenham

Good Morning,

**Land East of Station Rd, Elsenham**

WSP are currently undertaking a Preliminary Risk Assessment on the above site (see attached plan) and I would be grateful if you could supply me with any information you may have with regards to any environmental issues associated with the above named site.

We would like to obtain any relevant information the Environment Agency may hold with regard to water resources and potential for, or actual contaminated land, on the site or in the vicinity, specifically:

1. Landfill sites within 1km of the subject site, including:

- licence holder
- location of landfill/grid reference
- nature of fill material
- dates of operation
- details of any leachate/landfill gas problems and gas monitoring results if available

2. Pollution incidents to controlled waters/known areas of contaminated land within 500m of the subject site, including:

- location/grid reference
- previous uses
- nature/source of pollution
- any further details

3. Private water supplies within 500m of the subject site, including:

- location/grid reference
- details of source and abstraction purpose

4. Records of Water Quality within 500m of the above site, including:

- Groundwater quality of aquifer beneath the site;
- Groundwater depth within superficial/drift strata and the underlying bedrock;
- Any environmental issues associated with the site. Anything that could have led to contamination of soil or groundwater either beneath the site or within a 500m radius; and

5. Details of any soil or groundwater remedial works carried out at the site or within 500m of the site; and

6. Records of any subsidence/instability in the area.

Please do not hesitate to contact me if you require any further information, my contact details are listed below. I understand that there may be a charge for this information and would be grateful if you could contact me advising me of any costs.

Kind Regards,  
Sam



**Sam John**

Graduate Geo-Environmental Consultant

MGeol (Hons)

*he / him*

M+ (0) [REDACTED]

WSP in the UK  
Unit 9, The Chase  
John Tate Road  
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SG13 7NN

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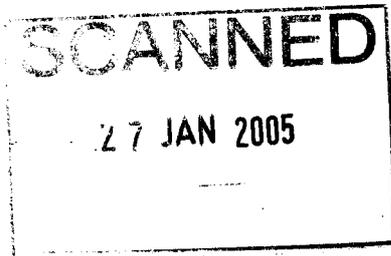
Standard Permit for the Landfill Sector

# Permit with introductory note

Pollution Prevention and Control Regulations 2000  
Landfill Regulations 2002

---

Elsenham Quarry and Landfill  
Hall Road  
Elsenham  
Hertfordshire  
CM22 6DJ



Permit number  
BU 7081

## Contents

Introductory note .....	ii
<b>Permit</b> .....	<b>1</b>
<b>Conditions</b> .....	
1 General .....	2
2 Operating conditions .....	5
3 Records .....	19
4 Reporting .....	20
5 Notifications .....	21
6 Interpretation .....	23
Schedule 1 - Notification of abnormal emissions .....	25
Schedule 2 - Reporting of monitoring data .....	27
Schedule 3 - Forms to be used .....	29
Schedule 4 - Reporting of performance data .....	30
Schedule 5 - Site Plan .....	31

# Introductory note

## ***This introductory note does not form a part of the Permit***

The following Permit is issued under Regulation 6 of the Landfill (England and Wales) Regulations 2002 (S.I.2002 No.1559) ("the Landfill Regulations") and Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Section 5.2 A(1)(a) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit: i.e.

There may be some activities on the installation to which BAT applies because they are not Landfill activities. Therefore, in some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to the appropriate Horizontal guidance (H1 to H4) and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows :

The site is located to the east of Eisenham village (Essex) and 2 miles to the north of Stansted airport. It is a rural area surrounded by arable farmland and woodland.

The permitted installation area includes in addition to the landfill, site access roads, weighbridge and office infrastructure. Entrance to the site is gained from the south via a dedicated haul road running from the public highway to the south of the site. There is a secondary access via Henham road to the west.

The landfill has been developed in a former sand quarry overlying London Clay. The sands are overlain by boulder clay which together with the London Clay have been utilised for the purpose of landfill construction. The Permit is for a non-hazardous landfill. There is approximately 10 years worth of void space remaining. The site has been developed in 3 Phases on a full containment basis. Phase 1 has been completed and restored, Phase 2 is operational and Phase 3 pre-operational. There are areas of former closed landfill to the south of the installation boundary (now a golf course).

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

### Other PPC Permits relating to this installation

Permit holder	Permit Number	Date of issue
N/a		

### Other existing Licences/Authorisations/Registrations relating to this installation

Holder	Reference Number	Date of issue
N/a		

### Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of issue
Surface water discharge consent	CP937	05/06/1986
Waste Management Licence	WML 80444	29/12/1994

Other activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above.

## Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

## Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

## Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. As the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

## Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.

To give a Notification under condition 5.1.2, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

## Status Log

Detail	Date	Comment
Application BU 7081	9 October 2003	
<i>Response to request for information dated 17.03.2004</i>		<i>Letter Response to questions Dated 30.03.2004. ESID Supplemental Report Dated March 2004. Identification &amp; Evaluation of Aspects &amp; Impacts. XLS Dated 17.02.2004. Gas Risk Assessment Version 2 Post Application Dated 30.03.2004</i>
<i>Request to extend determination</i>	<i>N/a</i>	
<i>Permit determined</i>	<i>See page 1 for date</i>	

End of introductory Note.

**Permit**

Pollution Prevention and Control  
Regulations 2000  
Landfill Regulations 2002



**ENVIRONMENT  
AGENCY**

## Permit

Permit number  
**BU 7081**

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973), and Regulation 6 of the Landfill (England and Wales) Regulations 2002 (S.I.2002 No.1559) hereby authorises **Brett Waste management Ltd ("the Operator")**,

Of/ whose Registered Office (or principal place of business) is  
**St. Paul's House**  
**Warwick lane**  
**London**  
**EC4P 4BN**

**Company registration number 2751074**

to operate an installation at  
**Eisenham Quarry and Landfill**  
**Hall Road**  
**Eisenham**  
**Hertfordshire**  
**CM22 6DJ**

to the extent authorised by and subject to the conditions of this Permit.

The landfill authorised by this Permit is for the disposal of non-hazardous waste

Signed	Date
	06 August 2004

Emily Finney – Team Leader, Strategic Permitting Group

Authorised to sign on behalf of the Agency

# Conditions

## 1 General

### 1.1 Permitted Activities

- 1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

**Table 1.1.1**

<b>Activity listed in Schedule 1 of the PPC Regulations / Associated Activity</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
Section 5.2A (1)(a), The disposal of waste in a landfill	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002)	Disposal of non-hazardous wastes, consisting of the types and quantities specified in condition 2.1.2, as an integral part of landfilling.
Leachate management	Storage and treatment of leachate	Leachate arising from the Permitted landfill
Landfill gas management	Flaring and/or utilisation of landfill gas for energy recovery	Landfill gas arising from the Permitted landfill
Leachate discharges to foul sewers	Discharge of leachate from the landfill	From leachate management system to point of entry to sewer
Water discharges to controlled waters	Discharge of site drainage	From surface water management system to points of entry to controlled waters

- 1.1.2 Where waste on site is subjected to activities that are exempt from control under the Waste Management Licensing Regulations 1994, then the wastes controlled under condition 1.1.1, above, shall be clearly identified and kept separate from such exempt waste activities and a record shall be kept of where such exempt activities are conducted.

### 1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged in red on the Site Plan at Schedule 5 to this Permit.

### 1.3 Overarching Management Condition

- 1.3.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

## 1.4 Improvement Programme

1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the dates specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme requirements		
Ref.	Requirement	Date
1a	Submit arrangements for leachate treatment, temporary storage and disposal of leachate including construction specification and method statement for operation and maintenance of leachate treatment plant and temporary storage facilities.	By 31 <sup>st</sup> December 2004
1b	Establish and maintain arrangements for leachate treatment, temporary storage and disposal of leachate as approved by the Agency in writing.	By 31 <sup>st</sup> December 2005
2a	Submit arrangements for gas abstraction infrastructure, gas flare and associated waste to energy plant including construction specification and method statement for operation and maintenance of landfill gas flare and associated waste to energy plant.	By 31 <sup>st</sup> December 2004
2b	Install landfill gas abstraction infrastructure, gas flare and associated waste to energy plant as approved by the Agency in writing.	By 31 <sup>st</sup> December 2005
3	Introduce routine six monthly analysis for a representative range of List 1 substances in respect of leachate and groundwater monitoring. Introduce routine monthly monitoring of leachate levels.	Within 3 months of issue of Permit
4	Establish downgradient groundwater monitoring network with boreholes, number and distance to be approved in writing with the Agency, along the southern and western installation boundaries and commence monitoring.	Within 9 months of issue date of Permit
5a	Review existing analytical suites and sampling schedules and amend and implement in accordance with EA guidance LFTGN02.	Within 6 months of issue date of Permit
5b	Determine borehole-specific trigger levels for all boreholes (including boreholes installed under improvement condition 4 above) for approval by the Agency in writing.	Within 12 months of issue date of this permit or within 12 months of borehole installation
6	Resubmit the hydrogeological risk assessment and all subsequent information submissions made as part of this application as one stand alone document.	Within 12 months of issue date of this permit.

1.4.2 Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 it shall send written notification of such failure to the Agency within 14 days of such date.

## 1.5 Minor Operational Changes

1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.

- 1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.
- 1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.
- 1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique, and relevant provisions in the Application shall be deemed to be amended.

## **1.6 Pre-Operational Conditions**

- 1.6.1 No disposal of wastes shall take place in any area of the Permitted Installation where waste deposit commences after the issue of this Permit unless:
  - 1.6.1.1 Prior to the commencement of construction of that area the operator has submitted to the Agency in writing the detailed design and the construction quality assurance (CQA) programme for the pre-operational engineering of the barriers, liners and leachate collection layer for that area and that it is confirmed in writing by the Agency that these are in conformance with the relevant specifications set out in section 2 of Part B of the Application; and
  - 1.6.1.2 the operator has notified the Agency in writing of any changes in the detailed design and the CQA programme that are made during the construction, and within 5 working days of those changes having been made and that the Agency has agreed in writing that these are in conformance with the relevant specifications set out in Part B of the Application Form; and
  - 1.6.1.3 the pre-operational engineering and infrastructure of the barriers and liners and the leachate collection layer have been completed and validated in accordance with the documented CQA procedures, and
  - 1.6.1.4 the operator has submitted the validation report in writing to the Agency; and
  - 1.6.1.5 the Agency has inspected the area to ensure that it complies with the relevant conditions of the landfill permit, and has confirmed in writing that it has no objection to that area becoming operational.

## **1.7 Off-site Conditions**

- 1.7.1 There are no off-site conditions

## 2 Operating conditions

### 2.1 Landfilling Controls

2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques		
Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form and ESID Supplemental Report Dated March 2004, Identification & Evaluation of Aspects & Impacts. XLS Dated 17.02.2004 and Gas Risk Assessment Version 2 Post Application Dated 30.03.2004	Application: 9 <sup>th</sup> October 2003

2.1.2 Wastes shall only be accepted for disposal on the site if :

2.1.2.1 they are as specified in table 2.1.2 below:

Waste Category or Type	Re-permitted Landfill
	Permitted or not Permitted
Hazardous	Not Permitted
Non-hazardous	Permitted
Stable non-reactive hazardous	Not Permitted
Inert	Permitted
Liquid wastes (including waste waters but excluding sludge).	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Waste which in the conditions of landfill is explosive, corrosive, oxidising, highly flammable or flammable.	Not permitted unless non-hazardous when permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Hospital and other clinical infectious wastes from medical or veterinary establishments.	Not permitted unless non-hazardous when permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown.	Not permitted unless non-hazardous when permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Whole used tyres (other than tyres used as engineering materials, bicycle tyres and tyres with an outside diameter of more than 1400mm.)	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007

<b>Waste Category or Type</b>	<b>Re-permitted Landfill</b>
	<b>Permitted or not Permitted</b>
Shredded used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm.)	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Any waste which does not fulfil the relevant waste acceptance criteria.	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Waste which has been diluted or mixed solely to meet the relevant waste acceptance criteria.	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007
Wastes which have not been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.	Permitted until a date to be specified in Regulations and if no date so specified no later than 31 <sup>st</sup> March 2007

and

- 2.1.2.2 they are in accordance with the list of waste types and quantities, as described in the application.
- 2.1.2.3 The operator of the landfill shall visually inspect the waste at the entrance to the landfill and at the point of the deposit and shall satisfy himself that it conforms to the description provided in the documentation submitted by the holder.
- 2.1.2.4 The operator shall ensure that if representative samples are taken for analysis, the operator shall retain the samples and results of any analysis for at least one month.
- 2.1.2.5 The operator on accepting each delivery of waste shall provide a written receipt to the person delivering it.
- 2.1.2.6 The operator shall ensure that the landfill is secured to prevent free access to the site and the gates of the landfill must be locked outside operating hours.
- 2.1.3 The total quantity of waste that shall be deposited in the landfill shall not exceed 2.75 million tonnes.
- 2.1.4 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits and acceptance ratios in Table 2.1.3 below, and in any case the total quantity deposited in any year shall not exceed 300,000 tonnes.

<b>Table 2.1.3 Annual Waste Input Limits</b>		
<b>Category</b>	<b>Limit Tonnes/ Year</b>	<b>Acceptance Ratios</b>
<b>Hazardous Waste</b>	0	Not applicable
<b>Non-hazardous Waste</b>	300,000	
<b>Stable, non-reactive hazardous waste</b>	0	
<b>Inert Waste</b>	100,000	
<b>Overall Total (See condition 2.1.4 above)</b>	300,000	

- 2.1.5 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, origin, date of delivery, the identity of the producer (or in the case of municipal waste, the collector) of any waste that is received for disposal or recovery at the Permitted Installation.
- 2.1.6 The Operator shall record the quantity of waste deposited within the landfill and the precise disposal location of any hazardous waste.

## **2.2 Emissions**

### **2.2.1 Emissions to Air, (excluding Odour, Noise or Vibration) from Specified Points**

- 2.2.1.1 Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.
- 2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table.

<b>Table 2.2.1 : Emission points to air</b>		
<b>Emission point reference or description</b>	<b>Source</b>	<b>Location of emission point</b>
Landfill gas flare	Deposited wastes	Gas Management Compound. Drawing No. 1.1.1
Landfill gas engine(s)	Deposited wastes	Gas Management Compound. Drawing No. 1.1.1

- 2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded.

**Table 2.2.2 Emission limits to air and monitoring**

Emission point reference	Parameter	Limit (mg/m <sup>3</sup> )	Monitoring frequency	Monitoring method
Flare	Nitrogen Oxides (NO <sub>x</sub> )	150	Annually	Chemiluminescence
Flare	Carbon Monoxide (CO)	50	Annually	Non-Dispersive Infra red analysis
Flare	Total Volatile Organic Compounds (VOC's)	10	Annually	Extractive sampling and FID analysis
Flare	Non Methane Volatile Organic Compounds (NMVOC's)	5	Annually	Extractive sampling onto sorbent, extraction by CS <sub>2</sub> , analysis by GC with appropriate detector
Engine(s)	Nitrogen Oxides (NO <sub>x</sub> )	500	Annually	Extractive sampling and Chemiluminescence
Engine(s)	Carbon Monoxide (CO)	1400	Annually	Extractive sampling and non-dispersive Infra red analysis
Engine(s)	Total Volatile Organic Compounds (VOC's)	1000	Annually	Extractive sampling and FID analysis
Engine(s)	Non Methane Volatile Organic Compounds (NMVOC's)	150	Annually	Extractive sampling onto sorbent, extraction by CS <sub>2</sub> , analysis by GC with appropriate detector

2.2.1.4 No condition applies.

## 2.2.2 Emissions to water (other than groundwater), from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

### Emissions to Water (other than to Sewer)

2.2.2.2 Conditions 2.2.2.3-6 shall not apply to emissions to sewer.

2.2.2.3 No emission from the Permitted Installation shall be made to water except as specified in Table 2.2.4

**Table 2.2.4: Emission point to surface water**

Emission Point Reference or description	Source	Receiving Water
Peripheral drainage collection system discharge point reference CP937 as shown on Drawing 1.1.1	Landfill runoff via settlement pond	Stansted Brook

2.2.2.4 The limits for the emissions to water for the parameters and emission points set out in Table 2.2.5a and 2.2.5b shall not be exceeded.

<b>Table 2.2.5a : Control Levels for emission limits to surface water</b>	
<b>Parameters with frequency of sampling</b>	<b>Monitoring Points SWM01, SWM05, SWM09, SWM10 as shown on Drawing No. 1.1.1</b>
Ammoniacal Nitrogen (mg/l) – monthly	3
Chloride (mg./l) - monthly	250
BOD (mg/l) - monthly	20
Total Iron (mg/l) - monthly	5
Suspended Solids (mg/l) - monthly	20
Oil and Grease (mg/l) - monthly	None visible
pH – monthly (mg/l) - monthly	6 - 8

<b>Table 2.2.5b : Trigger Levels for emission limits to surface water</b>	
<b>Parameters with frequency of sampling</b>	<b>Monitoring Point CP937 as shown on Drawing No. 1.1.1</b>
Ammoniacal Nitrogen (mg/l) – monthly	3
Chloride (mg./l) - monthly	250
BOD (mg/l) - monthly	20
Total Iron (mg/l) - monthly	5
Suspended Solids (mg/l) - monthly	20
Oil and Grease (mg/l) - monthly	None visible
pH – monthly (mg/l) - monthly	6 - 8

- 2.2.2.5 Where a substance is specified in Table 2.2.5a and 2.2.5b but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration

### **Emissions to sewer**

- 2.2.2.6 There are no specific controls imposed on emissions to sewer in this Part of the Permit. Controls on such emissions are included in Parts 2.2.5 and 2.2.7
- 2.2.2.7 No condition applies.
- 2.2.2.8 No condition applies.
- 2.2.2.9 No condition applies

### **2.2.3 Emissions to groundwater**

- 2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).
- 2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

- 2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.2.3.4 The Operator shall carry out monitoring of the parameters listed in Table 2.2.9a, at the specified monitoring points and at least at the frequencies specified in that Table.
- 2.2.3.5 The trigger levels for emissions into groundwater for the parameters and monitoring points set out in Table 2.2.9a shall not be exceeded.

<b>Table 2.2.9a: The trigger levels for emissions into groundwater</b>	
<b>Parameters with frequency of monitoring</b>	<b>Monitoring Points BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05 as shown on Drawing 1.1.1, including all other additional boreholes agreed under condition 1.4.1 (4 and 5a and 5b)</b>
Ammoniacal Nitrogen (mg/l) – quarterly	0.5
Chloride (mg/l) - quarterly	60
Potassium (mg/l) - quarterly	15
Lead (mg/l) - quarterly	0.025
Cadmium (mg/l) - quarterly	0.005
Toluene (mg/l) – six monthly	0.0003
Mecoprop (mg/l) – six monthly	0.0001

- 2.2.3.6 Subject to the terms of this condition, the activities of disposal, or tipping for the purpose of disposal, of waste, that are authorised by this landfill permit shall cease 3½ years from date of issue of this Permit, unless by that date the operator has submitted to the Agency a written review of the Hydrogeological Risk Assessment submitted as part of the original Application for the permit.

The Risk Assessment review shall include a review of the responses in Section 1.2.1 to 1.2.10 of Part B of that original application. The written review shall show whether at the specified date, the level of risk to groundwater meets the terms of the Groundwater Regulations 1998.

Within six months of receipt of the written review the Agency shall reply in writing to the operator either confirming that the above requirements have been met and authorising continuation of disposal activities or that activities of disposal or tipping for the purpose of disposal of waste authorised by this permit shall cease until the operator can show that, the level of risk to groundwater meets the terms of the Groundwater Regulations 1998.

In the event that the continuation of activities is authorised in accordance with this condition beyond 4 years following the date of granting of this Permit, they shall cease on every fourth anniversary thereafter, unless, by each of those dates, the operator has submitted to the Agency a further written review of the Hydrogeological Risk Assessment which shows that, at the specified dates, the level of risk to groundwater meets the terms of the Groundwater Regulations.

The reviews submitted to the Agency shall include the results of any investigations and reviews carried out, and, in particular, reviews of the following aspects of the Hydrogeological Risk Assessment:

Recommendations of the essential technical precautions which must be taken, paying particular attention to the nature and concentration of the substances present in the matter being disposed of or tipped, the characteristics of the receiving environment and the proximity of the water catchment areas, in particular those for drinking, thermal and mineral water;

Recommendations of the technical precautions necessary:

- i In the case where groundwater is considered to be permanently unsuitable for other uses, to ensure that no substance in list I can reach other aquatic ecosystems or harm other ecosystems, to ensure that the presence of any list I substance once discharged into the groundwater will not impede exploitation of ground resources and to prevent pollution of groundwater by list II substances; and
- ii in the case where groundwater is not considered to be permanently unsuitable for other uses, to prevent any discharges into groundwater of substances in list I and to prevent any pollution of groundwater by substances in list II.

## 2.2.4 Fugitive emissions of substances to air

2.2.4.1 The Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:

- open surfaces, unfilled, operational and filled landfill surfaces
- storage areas
- buildings
- pipes, valves and other transfer systems

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

- 2.2.4.2 The Operator shall use all appropriate measures so as to prevent or where that is not practicable to reduce emissions of litter and dust from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

**Aerial emissions of particulate matter**

- 2.2.4.4 The operator shall carry out monitoring of the parameters listed in Table 2.2.11 below, at the specified monitoring points and at least at the frequencies specified in that Table.
- 2.2.4.5 The limits for dust emissions and monitoring points set out in Table 2.2.11 shall not be exceeded.

Table 2.2.11 Dust emission limits into air		
Parameters and frequency of monitoring	Emission Limit	Monitoring Points
Qualitative dust monitoring - quarterly		AQ01, AQ02, AQ03, AQ04, AQ05 as shown on Drawing 1.1.1
Gross dust depositional rate - Annual	100 mg/m <sup>2</sup> /day	AQ01, AQ02, AQ03, AQ04, AQ05 as shown on Drawing 1.1.1

## 2.2.5 Fugitive emissions of substances to water and sewer

- 2.2.5.1 Subject to condition 2.2.5.2 below, the Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than Groundwater) and sewer from the Permitted Installation in particular from:
- all structures under or over ground
  - surfacing
  - bunding
  - storage areas

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

- 2.2.5.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.
- 2.2.5.3 The leachate quality shall be assessed six-monthly in accordance with EA guidance for a representative range of List 1 and List 2 substances. The trigger levels in Table 2.2.12 shall apply.

Table 2.2.12 Leachate Trigger Levels		
Substance	Trigger Level - mg/l	Compliance Points
Ammoniacal nitrogen	250	L01 to L35 as shown on drawing 1.1.1
Chloride	500	
Lead	0.25	
Ethyl benzene	0.005	
Napthalene	0.007	
Toluene	0.025	

2.2.5.4 The leachate levels within the installation shall be monitored monthly at each of the compliance points. **The head of leachate shall not be permitted to exceed 2 metres above the base of any leachate monitoring point at any time throughout the operational or aftercare phases.**

## 2.2.6 Odour

2.2.6.1 The Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

- controlling operational activities to minimise the generation of odour
- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.6.2 All emissions to air from the installation shall be free from offensive odour as perceived by an Authorised Officer of the Agency outside the installation boundary except that the Operator shall not be taken to have breached this condition if the Operator has ensured that all appropriate measures are taken to prevent or where that is not practicable, to reduce, such odorous emissions.

## 2.2.7 Emissions to Land

2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

2.2.7.2 No emission from the Permitted installation shall be made to land

2.2.7.3 Landfill gas emissions shall be controlled and monitored monthly at the monitoring locations specified in Table 2.2.13

**Table 2.2.13 Landfill gas trigger levels**

<b>Emission point reference/description</b>	<b>Parameter</b>	<b>Trigger</b>
<b>Monitoring Points</b>		
BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98 as shown on Drawing 1.1.1, including all other additional boreholes agreed under condition 1.4.1 (5a and 5b)	Methane	1.0%
<b>Monitoring Points</b>		
BH02, BH04, BH06, BH08, BH09, BH78, BH95, as shown on Drawing 1.1.1, including all other additional boreholes agreed under condition 1.4.1 (5a and 5b)	Carbon Dioxide	4.0%

- 2.2.7.4 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the Site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.

## **2.3 Management and Fit and Proper Person**

- 2.3.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

### **Training**

- 2.3.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.
- 2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

### **Maintenance**

- 2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.
- 2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:
- 2.3.6.1 a written or electronic maintenance programme; and
- 2.3.6.2 records of its maintenance.

### **Incidents and Complaints**

- 2.3.7 The Operator shall maintain and implement written procedures for:
- 2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits and if such event occur;
- 2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and
- 2.3.7.3 ensuring that detailed records are made of all such actions and investigations.
- 2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.
- 2.3.9 ***Fit and Proper Person***

- 2.3.9.1 Any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Agency in writing within 5 working days of the change in management. Technically competent management and technical competence shall be as prescribed under Section 74 of the Environmental Protection Act 1990.
- 2.3.9.2 In the event of the Operator and/or any relevant person being convicted of any relevant offence and which is in addition to any already notified to the Agency, then full details shall be provided to the Agency within 14 days of conviction, whether or not the conviction is subsequently appealed. Such details shall include, in respect of each relevant person (as defined in section 74(7) of the Environmental Protection Act 1990 or any subsequent amendments to that section), the nature of the offence, the place and date of conviction, any sentence, and any fine or other penalty imposed; and
- 2.3.9.3 In the event that the Operator and/or any relevant person lodges an appeal against any such conviction, the Operator shall notify the Agency of this within 14 days of the lodging. The Operator shall notify the Agency of the results of that appeal, within 14 days of the appeal being decided; and
- 2.3.9.4 The financial provision for meeting the obligations under this Permit set out in the Agreement made between the Operator and the Agency on the date of this permit shall be maintained by the Operator throughout the subsistence of this Permit and the Operator shall produce evidence of such provision whenever required by the Agency.
- 2.3.9.5 The operator shall ensure that the charges it makes for the disposal of waste in the landfill covers all of the following
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 2.3.9.4; and
  - (a) the estimated costs for the closure and after-care of the landfill site for a period of at least 60 years from its closure.

## **2.4 Efficient use of raw materials**

- 2.4.1 The Operator shall:
- 2.4.1.1 maintain the raw materials table or description submitted in response to Section 2.4 of the Application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;
  - 2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and
  - 2.4.1.3 ensure that incoming water use is directly measured and recorded.

## **2.5 Waste Storage and Handling**

No condition applies except as covered by the requirements in 2.2.1.1

## **2.6 Waste recovery or disposal**

- 2.6.1 Waste produced at the Permitted Installation shall be recycled or recovered unless technically and/or economically impossible.
- 2.6.2 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

## **2.7 Energy Efficiency**

- 2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information listed in Table S4.1 at Schedule 4.
- 2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.
- 2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note H2 as from time to time amended. Energy efficiency shall be secured in particular by:
  - 2.7.3.1 ensuring that the appropriate operating and maintenance systems are in place;
  - 2.7.3.2 ensuring that all plant is adequately insulated to minimise energy loss or gain;
  - 2.7.3.3 ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
  - 2.7.3.4 ensuring employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
  - 2.7.3.5 where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and
  - 2.7.3.6 maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

## **2.8 Accident prevention and control**

- 2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in response to Section 2.4.4 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

## 2.9 Noise and Vibration

- 2.9.1 The Permitted Installation shall be designed, operated and maintained so as to avoid reasonable cause for annoyance from noise or vibration, in particular by:
- equipment maintenance e.g. fans, pumps, motors, conveyors and mobile plant;
  - use and maintenance of appropriate attenuation e.g. silencers, barriers, enclosures;
  - timing and location of noisy activities and vehicle movements;
  - periodic checking of noise emissions, either qualitatively or quantitatively; and
  - maintenance of building fabric.

Provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant

## 2.10 On Site Monitoring

- 2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Tables 2.2.2, 2.2.4, 2.2.5, 2.2.9a, 2.2.11, 2.2.12, 2.2.13 unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.
- 2.10.2 No condition applies
- 2.10.3 No condition applies
- 2.10.4 No condition applies
- 2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/or spot sampling, where such notification has been requested in writing by the Agency.
- 2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys) and any assessment or evaluation made on the basis of such data.
- 2.10.7 There shall be provided:
- 2.10.7.1 safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this Permit, unless otherwise specified in that Schedule; and
- 2.10.7.2 safe means of access to other sampling/monitoring points when required by the Agency.

## 2.11 Closure, Aftercare and Decommissioning

- 2.11.1 The Permitted Installation shall, subject to the conditions of this Permit, be managed and controlled as described in the documentation specified in Table 2.11.1, or as otherwise agreed in writing by the Agency.

**Table 2.11.1: Closure, Aftercare and Decommissioning techniques**

Description	Parts	Date Received
Application	The response to questions 2.5 In Part B of the application form	9 <sup>th</sup> October 2003

- 2.11.2 Where the above Table refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the later document(s) shall prevail to the extent of such conflict.
- 2.11.3 In respect of activities on the installation which are not Listed in Section 5.2 Part 1 A(1))a) or (b) of Schedule 1 of the PPC Regulations, the Operator shall maintain and operate these activities so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by:
- 2.11.3.1 attention to the design of new plant or equipment;
  - 2.11.3.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out.; and
  - 2.11.3.3 the maintenance of a site closure plan to demonstrate that the installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.
- 2.11.4 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.
- 2.11.5 The Operator shall implement the site closure plan on receipt of a notice from the Agency approving definitive closure of the landfill or part thereof.
- 2.11.6 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan in respect of any non-landfill activities.

## 2.12 Multiple Operator installations

- 2.12.1 This is not a multi-Operator installation

## 2.13 Transfer to effluent treatment plant

- 2.13.1 Transfers to effluent treatment plant shall occur only from the points specified in Table 2.13.1 and transfers from those points shall arise only from the sources and shall be released only to the treatment plant specified in that Table.

**Table 2.13.1 Transfer points to effluent treatment plant**

Transfer point description/Identifier	Source	Effluent Treatment Plant
Leachate abstraction points LO1 to L.35 as shown on Drawing 1.1.1	Landfill Phases 1A to 1E, 2A to 2E and 3A to 3E	Offsite or onsite

### 3 Records

3.1.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-

3.1.1.1 be made available for inspection by the Agency at any reasonable time

3.1.1.2 be supplied to the Agency on demand and without charge

3.1.1.3 be legible

3.1.1.4 be made as soon as reasonably practicable

3.1.1.5 indicate any amendments which have been made and shall include the original record wherever possible; and

3.1.1.6 be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing.

## 4 Reporting

- 4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.
- 4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out under condition 2.10, as follows:
  - 4.1.2.1 in respect of the parameters and emission points specified in Table S2 to Schedule 2.
  - 4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
  - 4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and
  - 4.1.2.4 to the Agency within 28 days of the end of the reporting period.
- 4.1.3 No condition applies.
- 4.1.4 The Operator shall review fugitive emissions, having regard to the application of the most appropriate measures to prevent pollution, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.
- 4.1.5 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement
- 4.1.7 The Operator shall submit to the Agency an interpretation report of the monitoring results for landfill gas, leachate, surface and groundwater against the relevant emission limits, assessment limits, control and trigger levels specified in the permit on a three monthly basis, and shall submit a summary report of these interpretations to the Agency within one month of the end of each three month period.
- 4.1.8 The Operator shall review all monitoring data required by this permit on an annual basis and shall submit a summary report to the Agency within three months of the end of each year.
- 4.1.9 The Operator shall submit to the Agency a report setting out the types and quantities of waste disposed of at the landfill on a three monthly basis i.e. for the periods 1 April - 30 June; 1 July - 30 September; 1 October - 31 December and 1 January - 31 March, such report to be received within 1 month from the end of each period.

## 5 Notifications

- 5.1.1 The Operator shall notify the Agency **without delay** of:-
- 5.1.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;
- 5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant adverse environmental effect; unless the quantity emitted is so trivial that it would be incapable of causing significant adverse environmental effect;
- 5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution;
- 5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution;
- 5.1.1.5 the refusal to accept or rejection of incoming waste at the landfill, and
- 5.1.1.6 the detection of any significant adverse environmental effects
- 5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-
- 5.1.2.1 information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
- 5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter; and such information shall be in accordance with that Schedule.
- 5.1.3 The Operator shall give prior written notification to the Agency of the following events and in the specified timescales:
- 5.1.3.1 as soon as practicable prior to the permanent cessation of the landfill disposal operations,
- 5.1.3.2 as soon as practicable prior to the cessation of the operation of the landfill disposal operations, for a period likely to exceed 1 month
- 5.1.3.3 at least 14 days prior to the resumption of the landfill disposal operations after a cessation
- 5.1.4 The Operator shall notify the Agency, as soon as practicable, of any information concerning the state of the site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.
- 5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:
- 5.1.5.1 where the Operator is a registered company:
- any change in the Operator's trading name, registered name or registered office address;
  - any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)
  - any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up;
- 5.1.5.2 where the Operator is a corporate body other than a registered company:
- any change in the Operator's name or address;
  - any steps taken with a view to the dissolution of the Operator.
- 5.1.5.3 In any other case:
- the death of any of the named Operators (where the Operator consists of more than one named individual);
  - any change in the Operator's name(s) or address(es);
  - any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership;
- 5.1.6 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Agency within one month of:
- 5.1.6.2 a decision by the Secretary of State not to re-certify that Agreement
- 5.1.6.3 a decision by either the Operator or the Secretary of State to terminate that agreement

- 5.1.6.4 any subsequent decision by the Secretary of State to re-certify such an Agreement
- 5.1.7 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the Operator shall notify the Agency within one month of:
  - 5.1.7.1 a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement
  - 5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period

## 6 Interpretation

6.1.1 In this Permit, the following expressions shall have the following meanings:

*"Application"* means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

*"Authorised Officer"* means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.

*"background concentration"* means such concentration of that substance as is present in:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation onto the site.

*"BAT" means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned." . In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.*

*"EQS" means Environmental Quality Standard*

*"Fugitive emission"* means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4 or 2.2.2.5 of this Permit"

*"Groundwater"* means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

*"Interim Hazardous"* means a landfill classified as hazardous until 16<sup>th</sup> July 2004

*" $L_{Aeq,T}$ "* means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T

*" $L_{A90,T}$ "* means the A weighted sound pressure level in dB exceeded for 90% of the time period, T

*" $L_{AFmax}$ "* means the maximum A weighted sound level measurement in dB measured with a fast time weighting

*"The Landfill Regulations"* means the Landfill (England and Wales) Regulations SI 2002 No. 1559 and words and expressions defined in the Landfill Regulations shall have the same meanings when used in this Permit, save to the extent that they are specifically defined in this Permit. It shall include future amendments or superseding legislation

*"Monitoring"* includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

*"Permitted Installation"* means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

"*PPC Regulations*" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit. It shall include any future amendments or superseding legislation

"*Sewer*" means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

"*Staff*" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"*Year*" means calendar year ending 31 December.

- 6.1.2 Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.
- 6.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means;
- 6.1.3.1 in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- 6.1.3.2 in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.
- 6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

# Schedule 1 - Notification of abnormal emissions and significant adverse environmental effects

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part C refers specifically to the requirement to notify the Agency of any significant environmental effect as required by the Landfill Regulations and should be used instead of Part B to report such to the Agency.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

## Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission/ significant adverse environmental effect	
Time and date of the emission/ significant adverse environmental effect	

Substance[s] emitted	Media	Best estimate of the quantity or the rate of emission	time during which the emission took place
	e.g. air		
	e.g. groundwater		

<b>Measures taken, or intended to be taken, to stop the emission</b>	
--	--

## Part B

<b>Any more accurate information on the matters for notification under Part A.</b>	
<b>Measures taken, or intended to be taken, to prevent a recurrence of the incident</b>	
<b>Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission</b>	
<b>The dates of any unauthorised emissions from the installation in the preceding 24 months.</b>	

<b>Name*</b>	
<b>Post</b>	

<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of Brett Waste management Ltd

### PART C

Nature of significant adverse environmental effect (e.g. Groundwater Pollution, LFG escape)	
Immediate measures taken to prevent further effects from this source	
Further measures taken , or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the significant adverse environmental effect	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of Brett Waste management Ltd

## Schedule 2 - Reporting of monitoring data

Parameters, for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

Table S2: Reporting of monitoring data			
Parameter	Emission point/ monitoring point	Reporting period	Period begins
Nitrogen Oxides mg/m <sup>3</sup> /day	Flare & Engine(s)	Annually	From date of issue of permit
Carbon Monoxide mg/m <sup>3</sup> /day	Flare & Engine(s)	Annually	From date of issue of permit
Total VOC's mg/m <sup>3</sup> /day	Flare & Engine(s)	Annually	From date of issue of permit
Non Methane VOC's mg/m <sup>3</sup> /day	Flare & Engine(s)	Annually	From date of issue of permit
Ammoniacal Nitrogen (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
Chloride (mg./l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
BOD (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
Total Iron (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
Suspended Solids (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
Oil and Grease (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
pH – monthly (mg/l)	CP937, SWM01, SWM05, SWM09, SW10	Monthly	From date of issue of permit
Ammoniacal Nitrogen (mg/l) –	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	Quarterly	From date of issue of permit
Chloride (mg./l)	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	Quarterly	From date of issue of permit
Potassium (mg/l)	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	Quarterly	From date of issue of permit
Lead (mg/l)	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	Quarterly	From date of issue of permit
Cadmium (mg/l)	BH02, BH04, BH06, BH08, BH09, BH78,	Quarterly	From date of issue of permit

	BH94, BH95, BH97, BH98, BHW04, BHW05		
Toluene (mg/l)	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	6 monthly	From date of issue of permit
Mecoprop (mg/l)	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98, BHW04, BHW05	6 monthly	From date of issue of permit
Dust (qualitative)	AQ01 to AQ05	Quarterly	From date of issue of permit
Gross depositional dust mg/m2	AQ01 to AQ05	Annually	From date of issue of permit
Ammoniacal nitrogen mg/l	L01 to L35	Monthly	From date of issue of permit
Chloride mg/l	L01 to L35	Monthly	From date of issue of permit
Lead mg/l	L01 to L35	Monthly	From date of issue of permit
Ethyl benzene mg/l	L01 to L35	Monthly	From date of issue of permit
Napthalene mg/l	L01 to L35	Monthly	From date of issue of permit
Toluene mg/l	L01 to L35	Monthly	From date of issue of permit
Leachate Level	L01 to L35	Monthly	From date of issue of permit
Methane %	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98	Monthly	From date of issue of permit
Carbon dioxide %	BH02, BH04, BH06, BH08, BH09, BH78, BH94, BH95, BH97, BH98	Monthly	From date of issue of permit

<u>Condition reference</u>	<u>Parameter</u>	<u>Reporting frequency</u>
2.1.5	Waste summary	Annually

Specified reporting frequencies shall begin from the date of issue of this permit.

## Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media/parameter	Form Number	Date of Form
<i>Air</i>	<i>A1</i>	
<i>Water</i>	<i>W1</i>	
<i>Water</i>	<i>W2</i>	
<i>Land</i>	<i>L1</i>	
<i>Noise</i>	<i>N1</i>	
<i>Energy</i>	<i>E1</i>	
<i>Assessment</i>	<i>I1</i>	
<i>Waste Return</i>	<i>R1</i>	
<i>Minor Operational Changes</i>	<i>MOC1</i>	

## Schedule 4 - Reporting of performance data

Data required to be recorded and reported by Condition 2.7.1.

Table S4.1: Energy consumption			
	Delivered, MWh	Primary, MWh	% of total
Electricity*			
Gas			
Oil			
Other			

\*specify conversion factor of primary source to delivered energy

# Schedule 5 - Site Plan

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*Drawing 1.1.1 Dated September 2003*

END OF PERMIT



# **Brett**

## **Brett Waste Management Limited**

Elsenham Sand Quarry Hall Road  
Elsenham Nr. Bishop's Stortford Herts CM22 6DJ  
Telephone: 01279 850315  
Fax: 01279 850628

Ref. Sk/ht/Env/wml80444

18 January 2005

Environment Agency Thames N E Area  
Apollo Court  
2 Bishop's Square Business Park  
St Albans Road West  
Hatfield, Herts  
AL10 9EX

For the attention of Dr Alan Wootton

Dear Sirs

RE: ENGINEERING WORKS AT ELSENHAM, BU7081

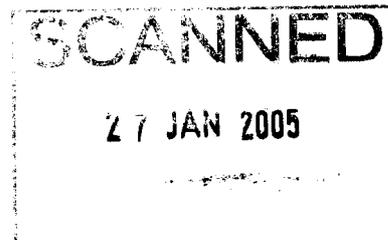
I can confirm that the engineering works at Elsenham relating to waste cell 2C have been completed. The CQA report for 2C engineering works is now being compiled and will be forwarded to you within the next two to three weeks.

If there are any further questions on this or other issues regarding the site, then please contact me.

Yours faithfully  
For Brett Waste Management Ltd.



S Knowles  
Site Manager



Copies to: Gwen Mott – Emily Shann

Our ref: BS/MW/PPC/BU7081  
Your ref:



**ENVIRONMENT  
AGENCY**

Date: 03 November 2004

RECEIVED

Adrian Dent,  
Environment Agency Hatfield,  
2 Bishops Square,  
Business Park,  
St Albans Road West,  
Hatfield,  
Hertfordshire,  
AL10 9EX

Dear Adrian,

**THE POLLUTION PREVENTION AND CONTROL (ENGLAND AND WALES) REGULATIONS 2000 (SI 2000 No 1973), as amended, (the PPC Regulations);**

Application Reference BS/MW/PPC/BU7081  
Applicant  
Installation                      Elsenham Quarry

Please find enclosed a copy of some additional information regarding the above application for your Public Register. The information has been organised in date order and an IPPC Public Register Transmission sheet has been included for your reference.

If you require any further information, please contact me on 01454 635445, or at the address below.

Environment Agency  
C/o Motion Media Technology Centre  
Severn Bridge  
Aust  
Bristol BS35 4BL

Yours Sincerely,



**Miss Bethny Smith  
Technical Administrator**



Enc. Additional Public register information.

Environment Agency c/o Motion Media Technology Centre, Severn Bridge, Aust, Bristol, BS35 4BL  
Tel: 01454 635443 Fax: 01454 635441



# IPPC PUBLIC REGISTER TRANSMISSION SHEET

OPERATOR  
INSTALLATION Elsenham Quarry

PERMISSION NUMBER BU7081

DOCUMENTS ATTACHED	TICK BOX	DATE CREATED or received BY AGENCY	NO OF SHEETS
Application for permit			
Application for variation (major/minor)*			
Application for Surrender			
Application for transfer			
Statutory consultee letters			
Notice and covering letter for further information			
Response to notice			
Additional information supplied by applicant			
Advertisement of application for permit or variation			
Correspondence re extension to determination date			
Permit	X	6 August 2004	35
Variation			
Statutory consultee comments :			
Public comment			
Notice of Determination			
Appeal to SoS			
Secretary of State notification/direction			
Conviction or formal caution details			
Enforcement notice/Withdrawal of enforcement notice*			
Prohibition notice/Withdrawal of prohibition notice*			
Monitoring/Emissions information*			
Surrender notice			
Transfer notice			
Revocation particulars			
Other (specify) -			

\* Delete as appropriate

The attached documentation does not contain information relating to national security or commercial confidentiality

Signature of person sending to IPPC Public Register

Date sent to Public Register

03 November 2004

Date filed on Public Register

Days elapsed since receipt by Agency

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Viridor Waste Management Limited

Elsenham Landfill  
Hall Road  
Elsenham  
Bishop's Stortford  
Essex  
CM22 6DJ

## **Variation application number**

EPR/MP3435KP/V006

## **Permit number**

EPR/MP3435KP

# Elsenham Landfill

## Permit number EPR/MP3435KP

### Introductory note

#### This introductory note does not form a part of the notice.

The following gives notice of the variation and consolidation of this environmental permit. We have issued this variation to consolidate the original permit and subsequent variations and to update some of the conditions following a statutory review of permits in the landfill sector. We have also converted the permit into the current EPR permit format using modern conditions.

The Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2010, regulation 34(1), to periodically review permits. As a result of that review we have identified a number of necessary changes we must make to your permit to reflect current legislation and best practice. These changes principally relate to:

- The addition of a standard condition for landfill gas management at landfills that accept biodegradable waste;
- A change to the hydrogeological risk assessment condition so that reviews are undertaken every 6 years rather than every 4 years;
- Standard leachate and groundwater quality monitoring tables (schedule 3); and
- A standard reporting table (schedule 4).

Schedule 1 to this notice summarises the changes we have made to this permit.

Status log of the permit		
Description	Date	Comments
Application BU7081IN	09/10/03	Duly made
Additional Information Received	30/03/04	Additional Information Received
Permit determined BU3733XJ	06/08/04	.
Permit varied VP3339SQ	08/11/04	Permit varied VP3339SQ
Company name changed to Viridor Waste Kent Ltd	23/06/05	
Permit varied SP3832SV	16/11/05	
Permit varied BP3133MU	23/03/07	
Permit varied TP3733XJ	19/12/07	
Application EPR/MP3435KP/T001 (Full transfer of permit EPR/TP3733XJ)	15/09/09	Duly made
Transfer determined EPR/MP3435KP	21/10/09	
Application EPR/MP3435KP/V002	27/01/10	
Variation issued	16/06/10	
Application EPR/MP3435KP/V003	Received 02/05/12	Application to vary and consolidate the permit.
Variation issued	28/06/12	Varied and consolidated permit issued.
Agency variation determined EPR/MP3435KP/V004	29/05/13	Agency variation to implement the changes introduced by IED
Application EPR/MP3435KP/V005	Duly made 03/03/15	Application to increase the annual waste input limit to 800,000 tonnes per year.
Variation determined EPR/MP3435KP/V005	24/04/15	Varied permit issued.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Environment Agency Landfill Sector Review 2015 Permit reviewed Variation determined EPR/MP3435KP/V006 Permit EPR/MP3435KP (Billing ref: RP3334RK)	22/03/2016	Varied and consolidated permit issued in modern condition format.

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

### Permit number

**EPR/MP3435KP**

### Issued to

**Viridor Waste Management Limited** (“the operator”)

whose registered office is

**Peninsula House**

**Rydon Lane**

**Exeter**

**Devon**

**EX2 7HR**

company registration number 00575069

to operate a regulated facility at

**Elsenham Landfill**

**Hall Road**

**Elsenham**

**Bishop's Stortford**

**Essex**

**CM22 6DJ**

to the extent set out in the schedules.

The notice shall take effect from 22/03/2016

<b>Name</b>	<b>Date</b>
<b>Philip Lamb</b>	<b>22/03/2016</b>

Authorised on behalf of the Environment Agency

## Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation. The following table summarises the latest changes to the landfill permit template, however your permit may contain more changes than this where your permit has not been varied to recent template conditions.

Condition	Description of change
1.5	Generic condition to reflect the requirements of the Waste Framework Directive.
2.6.1(a)	Added reference to a specific table to clarify what wastes are permitted by which permitted activity.
2.6.2	Added to separately identify the waste types and quantities that can be accepted for restoration.
2.9	Revised gas management condition imposed for all landfills.
3.1.1	Generic condition imposed on all activities to simplify sub-conditions
3.1.4 to 3.1.5	Revised conditions to reflect the terminology used by the Groundwater Directive for 'hazardous substances' and to require hydrogeological risk assessment reviews are submitted every 6 years rather than every 4 years.
	Sub-condition that referred to emission of 'non-hazardous pollutants' deleted. Such emissions are regulated by condition 3.2.
	Two sub-conditions that referred to limits in specific tables in schedule 3 deleted as they are now covered by 3.1.1.
3.6	Revised generic pests condition imposed on all activities.
4.2.2	Amended to ensure that information on 'annual production/ treatment' (Schedule 4, Table S4.2) is provided in February each year where annual reports may be submitted at other times of the year.
4.2.2(a)	Text expanded to clarify the details we require in an annual report.
4.2.2(h)	New condition requiring annual submission of a plan of monitoring and extraction locations with reference to monitoring tables in schedule 3
4.3.1	Generic notifications condition added.
Schedules	
Table S1.1	Amended description of the landfill activity to clarify that this includes restoration. Activity references amended to reflect changes introduced by Industrial Emissions Directive (2010/75/EU).
Table S1.4	Amended to clarify that restoration is a separate part of the activity unrelated to landfill cover.
Schedule 2	Standard list of wastes added.
Schedule 3	Monitoring and compliance tables have been re-ordered so that those with compliance limits appear first. Standard monitoring frequency and parameters have been included for certain routine monitoring requirements
Table S4.1	Amended to only require regular reports of information that relate to compliance limits.
Table S4.2	Additional details of landfill gas extracted required to improve climate change data quality.
Table S4.3	Amended to include natural gas as an energy source for consistency with other sectors.
Schedule 6	Definitions added to clarify meaning of: Inert waste Exceeded Hazardous substance

Condition	Description of change
	Medicinal product Previous year Waste acceptance criteria Waste acceptance procedure

## Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/MP3435KP**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/MP3435KP/V006 authorising,

**Viridor Waste Management Limited** (“the operator”),

whose registered office is

**Peninsula House  
Rydon Lane  
Exeter  
Devon  
EX2 7HR**

company registration number 00575069

to operate an installation at

**Elsenham Landfill  
Hall Road  
Elsenham  
Bishop's Stortford  
Essex  
CM22 6DJ**

to the extent authorised by and subject to the conditions of this permit.

<b>Name</b>	<b>Date</b>
<b>Philip Lamb</b>	<b>22/03/2016</b>

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Environment Agency dated 30th March 2010 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 1.2.1; and
  - (c) the estimated costs for the closure and aftercare of the landfill.

### 1.3 Energy efficiency

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) Review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) Implement any appropriate measures identified by a review.

### 1.4 Efficient use of raw materials

- 1.4.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

## **1.5 Avoidance, recovery and disposal of wastes produced by the activities**

1.5.1 The operator shall:

- (a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
- (b) review and record at least every four years whether changes to those measures should be made; and
- (c) take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

### **2.2 The site**

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **2.4 Improvement programme**

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

### **2.5 Landfill Engineering**

2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.

2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the

operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.

- 2.5.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.5 and 2.5.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.2, 2.5.4 and 2.5.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.

## **2.6 Waste acceptance**

- 2.6.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 2, table S2.1 and
  - (b) they are non- hazardous waste and
  - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
  - (d) they are not shredded used tyres, and
  - (e) they are not liquid waste (including waste waters but excluding sludge), and

- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
- (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.6.2 Wastes shall only be accepted for restoration where:

- (a) they are listed in schedule 2, table S2.2 and
- (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.

2.6.3 The operator shall:

- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
- (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.

2.6.4 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.6.5 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.6.6 The total quantity of waste that shall be deposited or recovered in the landfill shall be limited by the pre-settlement levels shown on drawing 1612.PRE.01.

2.6.7 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1 table S1.4.

2.6.8 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

## **2.7 Leachate levels**

2.7.1 The limits for the level of leachate listed in schedule 3 table S3.1 shall not be exceeded.

## **2.8 Closure and aftercare**

2.8.1 The operator shall maintain a closure and aftercare management plan.

## **2.9 Landfill gas management**

2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

- (a) collect landfill gas; and

- (b) control the migration of landfill gas.
- 2.9.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.9.3 The operator shall:
  - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
  - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 The limits in Schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.2 and S3.3.
- 3.1.3 The limits given in Table S3.2 shall not be exceeded, save that compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.5 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
  - (a) between nine and six months prior to the fourth anniversary of the granting of the permit, and
  - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
- (a) Leachate specified in tables S3.1 and S3.9;
  - (b) Point source emissions specified in tables S3.2 and S3.3;
  - (c) Groundwater specified in tables S3.4 and S3.7;
  - (d) Landfill gas specified in tables S3.5, S3.7 and S3.8;
  - (e) Surface water specified in table S3.10; and
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
- (a) annually, and
  - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
  - (c) following closure of the landfill or part of the landfill.

## **3.6 Pests**

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution hazard or annoyance from pests;
  - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) the results of groundwater monitoring;
    - (ii) sub-surface landfill gas monitoring;
    - (iii) leachate levels, quality and quantities;
    - (iv) landfill gas generation and collection;
    - (v) waste types and quantities;
    - (vi) the specification and as built drawings of the basal, sidewall and capping engineering systems.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### **4.2 Reporting**

- 4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will

include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;

- (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3
- (c) the annual production/treatment set out in schedule 4 table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of leachate and landfill gas extraction and all monitoring points.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) using the forms specified in schedule 4 table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

### 4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator

must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

## 4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 activities				
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	D5 –Specially engineered landfill; R5 - the recycling or reclamation of inorganic material and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.
<b>Directly Associated Activities</b>				
A2	R1 – use principally as a fuel to generate energy		Pre-treatment and utilisation of landfill gas for energy recovery in an appliance with a rated thermal input < 50MW	Treatment and utilisation of landfill gas arising from the landfill.
A3	D8 – Biological treatment of waste		Treatment of leachate in a facility with a capacity of <50 t/day	Leachate arising from the landfill.
A4	N/A		Temporary storage of waste (leachate)	Leachate arising from the landfill prior to removal off site.
A5	N/A		Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
A6	D6 – release to water body except seas / oceans		Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
A7	N/A		Storage of fuel for operation of plant and equipment.	Fuel storage tank.

<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 given in part B of the application and ESID supplemental report dated March 2004, Identification & Evaluation of Aspects & Impacts. XLS dated 17.02.2004 and Gas Risk Assessment Version 2 post application dated 30.03.2004.	01/04/05
Variation	The response to questions 1.2, 2.2, 2.9, 2.10 and 2.11 in part C of the application. ESID supplemental report dated March 2005. ESID section A dated March 2005. Appendix ESID 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13 and 14 dated March 2005. Hydrogeological Risk Assessment dated March 2005, Stability Risk Assessment dated March 2005, Consolidated Stability Risk Assessment dated October 2005, Gas Risk Assessment dated March 2005, Nuisance and Health Risk Assessment dated March 2005. Response to questions raised by the Agency dated May 2005, 15 July 2005 and 27 September 2005.	01/04/05
Variation	The response to questions 1b and 2b in part C of the application. Hydrogeological Risk Assessment Review dated January 2008.	27/01/10
Variation	Drawing EL3000 Environmental Monitoring location plan dated March 2010	29/04/10
Variation	Leachate management plan upon written agreement with the Environment Agency	October 2010

<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
1	The operator shall submit to the Environment Agency in writing for approval a restoration plan for the site which includes waste quantities, waste types, and waste acceptance criteria for wastes for restoration (2.6.2).	22/06/2016

<b>Table S1.4 Annual waste input limits</b>	
<b>Category</b>	<b>Limit Tonnes/ Year</b>
Non-hazardous waste	800,000
Inert waste	800,000
Waste for restoration	To be agreed on completion of IC1, table S1.3.

## Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	Description
<b>01</b>	<b>Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals</b>
<b>01 01</b>	<b>wastes from mineral excavation</b>
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
<b>01 03</b>	<b>wastes from physical and chemical processing of metalliferous minerals</b>
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
<b>02</b>	<b>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>
<b>02 04</b>	<b>wastes from sugar processing</b>
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
<b>06</b>	<b>Wastes from inorganic chemical processes</b>
<b>06 03</b>	<b>wastes from the MFSU of salts and their solutions and metallic oxides</b>
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
<b>06 11</b>	<b>wastes from the manufacture of inorganic pigments and opacifiers</b>
06 11 01	calcium-based reaction wastes from titanium dioxide production
<b>10</b>	<b>Wastes from thermal processes</b>
<b>10 01</b>	<b>wastes from power stations and other combustion plants (except 19)</b>
10 01 24	sands from fluidised beds

<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
<b>10 09</b>	<b>wastes from casting of ferrous pieces</b>
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
<b>10 10</b>	<b>wastes from casting of non-ferrous pieces</b>
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
<b>10 11</b>	<b>wastes from manufacture of glass and glass products</b>
10 11 03	waste glass-based fibrous materials
10 11 12	waste glass other than those mentioned in 10 11 11
<b>10 12</b>	<b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
<b>10 13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 14	waste concrete and concrete sludge
<b>15</b>	<b>Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>
15 01 07	glass packaging
<b>16</b>	<b>Wastes not otherwise specified in the list</b>
<b>16 01</b>	<b>end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)</b>
16 01 20	glass
<b>16 11</b>	<b>waste linings and refractories</b>
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
<b>17</b>	<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
<b>17 01</b>	<b>concrete, bricks, tiles and ceramics</b>

<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
<b>17 02</b>	<b>wood, glass and plastic</b>
17 02 02	glass
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
<b>19</b>	<b>Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b>
<b>19 01</b>	<b>wastes from incineration or pyrolysis of waste</b>
19 01 19	sands from fluidised beds
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 05	glass
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
<b>20</b>	<b>Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 02	glass
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>

<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
20 02 02	soil and stones

<b>Table S2.2 Permitted waste types for restoration</b>	
<b>Waste code</b>	<b>Description</b>
To be agreed on completion of IC1, table S1.3	

## Schedule 3 – Emissions and monitoring

**Table S3.1 Leachate level limits and monitoring requirements**

Monitoring point reference/Description	Limit	Monitoring frequency	Monitoring method
Leachate compliance points ELSEL12, ELSEL13, ELSEL14, ELSEL15, ELSEL16, ELSEL17, ELSEL18, ELSEL19, ELSEL20, ELSEL21, ELSEL22, ELSEL23, ELSEL24, ELSEL25, ELSEL26 on Plan EL3000	3.0 metres above the base of any leachate monitoring point or extraction point	Monthly	In accordance with Environment Agency document LFTGN02 (Feb 2003) 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
ELSEL27 and all future phase 3 and phase 4 leachate monitoring points	No limit	Monthly	
ELSEL01, ELSEL02, ELSEL03, ELSEL04, ELSEL05, ELSEL06, ELSEL07, ELSEL08, ELSEL09, ELSEL10, ELSEL11 on Plan EL3000	3.0m above cell base	Quarterly	

**Table S3.2 Point source emissions to air – emission limits and monitoring requirements**

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Landfill gas engine as shown on Plan ESID 8	Oxides of Nitrogen	Gas utilisation plant	500 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency
	CO		1400 mg/m <sup>3</sup>			
	Total VOCs		1000 mg/m <sup>3</sup>			
Flare 1 as shown on Plan ESID 8	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency. Monitoring is unnecessary where the flare is active for <10% of the year.
	CO		50 mg/m <sup>3</sup>			
	Total VOCs		10 mg/m <sup>3</sup>			

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements										
Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method				
Surface water discharge point ELSECP937, as detailed on drawing no. EL3000	Ammoniacal nitrogen	Landfill runoff via settlement pond	3 mg/l	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.				
	Chloride		250 mg/l							
	BOD		20 mg/l							
	Total iron		5 mg/l							
	Suspended solids	None visible in the receiving water course <sup>(1)</sup>								
	Oil and grease	None visible								
	pH	>6 - <9								
	(1) when compared to background, upstream surface water quality									

<b>Monitoring point reference</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
BH95 and BH97	Ammoniacal nitrogen	2.7 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
GWD1	Ammoniacal nitrogen	3.8 mg/l			
BH95 and BH97 and GWD1	Chloride	250 mg/l			
	Lead	240 µg/l			
BH97 and GWD1	Cadmium	1.6 µg/l			
	Cadmium	8.4 µg/l			
BH95, BH97 and GWD1	Toluene	4.0 µg/l			
	Xylene	3.0 µg/l			

<b>Monitoring point Ref. /description</b>	<b>Parameter</b>	<b>Limit (including g units)</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
BH02, BH04, BH06, BH73, BH75, BH78, BH94, BH95, BH104, BH105 and BH107GM to BH112GM identified on Plan EL3000	Methane	1 %v/v	Monthly	As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency.  Record whether the ground is: waterlogged frozen

<b>Monitoring point Ref. /description</b>	<b>Parameter</b>	<b>Limit (including g units)</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
BH02, BH06, BH73, BH75, BH78, BH95, BH104, BH105, BH112GM, BH108GM, BH109GM, BH111GM, BH110GM, BH107GM and BH04 as shown on drawing EL-3000.	Carbon Dioxide	No limit	Monthly	snow covered

<b>Monitoring point Ref. /description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring Standard or method</b>
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Whole site	Total methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.

**Table S3.7 Groundwater – other monitoring requirements**

Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
Up gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011, or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011, or such other subsequent guidance as may be agreed in writing with the Environment Agency.  After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	

<b>Table S3.8 Landfill gas – other monitoring requirements</b>					
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>	
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.	
	Hydrogen sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (V3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans	

<b>Table S3.8 Landfill gas – other monitoring requirements</b>					
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>	
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered	
Gas collection system at well control valve	Hydrogen sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (V3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans	

Table S3.8 Landfill gas – other monitoring requirements					
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 (v3, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency for a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.	
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.	

<b>Table S3.8 Landfill gas – other monitoring requirements</b>					
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>	
Flare 1 as shown on Plan ESID 8	Temperature	As per LFTGN05 (V2, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.		
Landfill gas engine as shown on Plan ESID 8, post turbo	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, (V2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions.	

Table S3.9 Leachate – other monitoring requirements				
Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
<b>Operational Cells or Phases</b> (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.5)				
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Quarterly	At leachate compliance point as listed in table S3.1. As specified in Environment Agency Guidance TGN02 (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011) with one sampling point per cell / phase or such other subsequent guidance as may be agreed in writing with the Environment Agency.	None
MEPP	Hazardous substances	Annually		None
MEPP	Depth to base (mAoD)	Annually		None
<b>Non Operational Cells or Phases</b> (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.5)				
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese,	Annually		
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		

<b>Table S3.10 Surface water – other monitoring requirements</b>				
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
MEPP	Ammoniacal nitrogen Chloride Suspended Solids Visual Oil and Grease pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, (Annex J3, version 2.1, Dec 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>		
<b>Parameter</b>	<b>Reporting period</b>	<b>Period ends</b>
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.6	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.7	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.8	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.9	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.10	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December

\* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

<b>Table S4.2: Annual production/treatment</b>	
Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass. Accepted from offsite for treatment at any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation. Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.8 monitoring) Methane generation rate (50%ile from a representative model)	Normalised cubic metres/year  % methane v/v  m3 /hr

<b>Table S4.3 Performance Parameters</b>			
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Annual total</b>	<b>Unit</b>
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas

<b>Table S4.4 Reporting Forms</b>		
<b>Media/parameter</b>	<b>Reporting Format</b>	<b>Date of Form</b>
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	16/03/2016
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	16/03/2016
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	16/03/2016
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	16/03/2016

<b>Table S4.4 Reporting Forms</b>		
<b>Media/parameter</b>	<b>Reporting Format</b>	<b>Date of Form</b>
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	16/03/2016
Waste Return	Waste Return Form RATS2E	16/03/2016
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	16/03/2016

## Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

### Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>
Leachate levels	5 working days

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Background concentration” means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

(a) “Cell layout drawing” means: A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:

- (i) the location of the new cell on the site;
- (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
- (iii) the proposed finished levels of all containment and leachate drainage layers;
- (iv) the positions of leachate management infrastructure; and
- (v) the positions of landfill gas infrastructure (if appropriate).

(b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:

- (i) changes to slope length and gradient within the cell;
- (ii) new leachate or landfill gas infrastructure construction design;
- (iii) slope stability issues such as new basal excavation level; and/or
- (iv) depth of waste.

“Construction Proposals” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;

- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675. Words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“exceeded” means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Landfill Infrastructure” means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“Liquids” means any liquid other than leachate within the engineered landfill containment system.

“LFTGN 05” means Environment Agency Guidance for monitoring enclosed landfill gas flares.

“LFTGN 07” means Environment Agency Guidance on monitoring landfill gas surface emissions.

“LFTGN 08” means Environment Agency Guidance for monitoring landfill gas engines.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“inert waste” means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

“Medicinal product” means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

“M2” means Environment Agency Guidance Monitoring of stack emissions to air.

“New Cell” means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

“MEPP” Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“No impact” means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

“Pests” means Birds, Vermin and Insects.

“Previous year” means the 12 month period preceding the month the annual report is submitted in.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“Relevant waste acceptance procedures” means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Relevant waste acceptance criteria” means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Review of the Hydrogeological Risk Assessment” means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for

the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

'Sustainably extracted' means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08

Where the following terms appear in the waste code list in Tables S2.1 or S2.2 they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight;

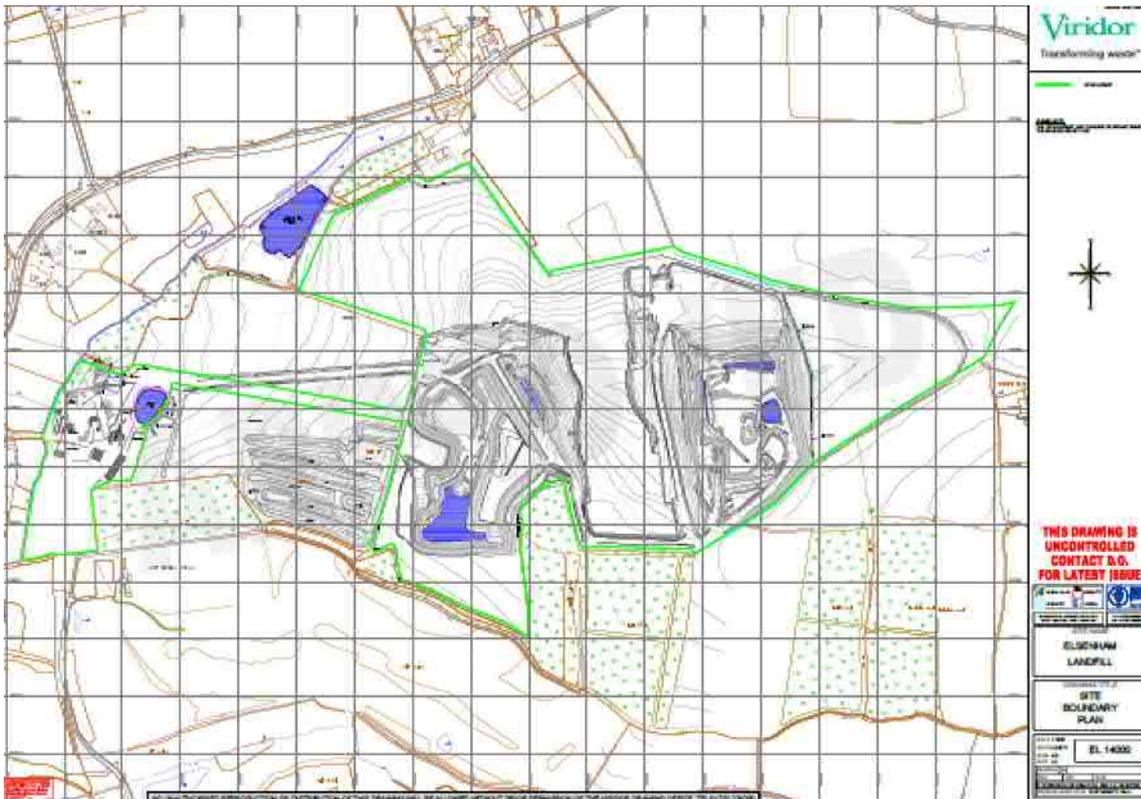
'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

# Schedule 7 – Site plan

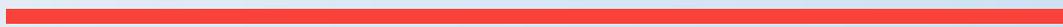


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END OF PERMIT

# Appendix H

## LEGISLATIVE AND PLANNING FRAMEWORK





## THE REGULATORY FRAMEWORK FOR OUR ASSESSMENT

Our assessment is made within the framework of the Contaminated Land Regime defined by Part 2A of the Environmental Protection Act and the Contaminated Land Statutory Guidance 2012. We have considered the contaminated land guidance documents issued by the Department for Environment, Food and Rural Affairs (DEFRA) including Model Procedures for the Management of Land Contamination (LCRM) (Environment Agency 2020).

Our method is to create a clear conceptual model of the potential Pollutant Linkages present on-site, consider the Sources (potential contaminants on-site) which may cause harm, via Pathways, to Receptors such as human health (e.g. that of site users), the water environment (groundwater, surface water) and the built environment (buildings, services). Contaminated Land has a precise definition, and does not include all land which contains contaminants, but only land where there is a Pollutant Linkage causing (or giving rise to a significant risk of) a degree of harm.

Our approach to the assessment of risks to Human Health is consistent with that established in LCRM. This establishes a tiered approach including:

- Preliminary Risk Assessment (e.g. the establishment of potential pollutant linkages) – normally through desk-based work;
- Generic Quantitative Risk Assessment (GQRA) (e.g. the comparison of contaminant concentrations against Soil Guideline Values (SGV) or other Generic Assessment Criteria (GAC)); and,

Detailed Quantitative Risk Assessment (DQRA) (e.g. the comparison of contaminant concentrations against site specific assessment criteria).



Unit 9, The Chase  
John Tate Road, Foxholes Business Park  
Hertford  
SG13 7NN

**wsp.com**

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