

Intended for
NHS Property Services Limited

Date
February 2019

Project Number
1700003544

BLOCK 1, DELLWOOD HOSPITAL, LIEBENROOD ROAD, READING PHASE I ENVIRONMENTAL REVIEW

**BLOCK 1, DELLWOOD HOSPITAL, LIEBENROOD ROAD,
READING
PHASE I ENVIRONMENTAL REVIEW**

Project No. **1700003544**
Issue No. **01**
Date **February 2019**
Made by **Chiara D'Antonio / Yvonne McGillicuddy**
Checked by **Lucy Wright**
Approved by **Lucy Wright**

Made by:



Checked/Approved by:

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Version Control Log

Revision	Date	Made by	Checked by	Approved by	Description
01	06/02/2019	CDA/YM	LW	LW	First draft issue

1. ADDRESS AND SITE DETAILS			
Address:	Block 1, Dellwood Hospital, 22 Liebenrood Road, Reading, RG30 2DX.		
NGR:	469390, 172720	Area:	0.32 hectares (ha)
Site use:	Currently occupied by a disused former hospital building and car parking area. Formerly used as a palliative care facility with office space.		
Setting:	Situated in the area of Southcote, within the south-west outskirts of Reading.		
Date:	Estimated date of construction of the northern extent of the building 1890s, later extended to the current footprint in the 1970s.		
2. REVIEW PURPOSE AND OBJECTIVES			
This Phase I Environmental Review was commissioned in connection with the Client's proposed sale of the site with a view to potential redevelopment (assumed residential purposes). The objectives of the review were to assess the potential for soil or groundwater contamination, both at and in the vicinity of the site, and its potential environmental implications. A second objective was to establish the Environment Agency's (EA) flood zone classification for the site. No sampling or analysis of soils, waters or other materials was undertaken as part of the review.			
3. ASSESSMENT BASIS			
☒	Site Inspection	☒	Environmental Health Information
☒	Map History	☒	Environment Agency Information
☒	Environmental Database Review	☒	Petroleum Licensing Information
☒	Planning History	☒	Geological and Hydrogeological Review
☐	Review of Previous Reports	☐	Mining Records Search
4. SITE INSPECTION			
The following information was derived from a site inspection undertaken on 28th January 2019 by Yvonne McGillycuddy of Ramboll Environment and Health UK Limited (Ramboll). Discussions were held with the lead groundsman Alex Meffin, who has worked on site for 15 years. Mr Meffin stated that the site building has been disused for the entire time he has worked at the site. Site Layout and Activities The site comprises a two-storey building of brick construction, with converted attic space and ancillary car-parking to the front (west) of the building. The building is disused and according to the site contact the site was used as a palliative care facility for both men and women, with office space in the upper levels. The building largely comprised ward space, with a commercial type kitchen (no kitchen equipment was present at the time of the inspection), office space and plant room (east of the building and located on the ground floor). The site contact stated that the plant room (which contained gas-fired boilers) adjoining the site building, currently provides heating to an off-site building which is leased by British Heart Foundation (BHF). A lift room is present in the building but could not be accessed at the time of the site inspection. The external areas of the site were largely covered with asphalt hard-standing, which appeared visually to reasonable condition (i.e. no apparent cracking, pitting, scarring or staining), with peripheral soft-landscaping. An area of soft landscaping is located directly east of the site building. The site is accessed by a shared access road, via Liebenrood Road (east of site). The access is shared by BHF and Sue Ryder, located directly east of the site. Car parking to the front of the site building is currently used by patients and staff of BHF and Sue Ryder. The site is relatively level topographically, dipping gently to the east. Surrounding Uses Activities within the surrounding land are as follows: North – a plant building used by BHF and Sue Ryder is located directly north of the site, The plant building houses a diesel generator with associated diesel tank, and a refrigeration room, previously used as a morgue. The site contact stated that the generator can also			

supply back-up power to the building on-site. Beyond the plant room are private residential properties.

- East – two hospital buildings occupied by British Heart Foundation and Sue Ryder, beyond which are private residential properties.
- South – Private residential properties (Jenkins Close).
- West – Prospect Park.

Storage of Chemicals and Hazardous Substances

Underground Storage

No underground storage tanks (USTs) were reported to be present at the site and no evidence of USTs was noted during the site inspection.

Aboveground Storage Tanks (ASTs)

There are no ASTs present at the site. An above ground heating oil tank was however identified to the rear of the building, beyond the northern boundary of the site. The tank was located within a brick bund over concrete hardstanding. The capacity of the tank and the bund could not be confirmed. Ramboll considers the tank to be of approximately 6,500 litre capacity based on its approximate dimensions. The site contact stated that the tank had been disused for at least 15 years, and that it was used for heating only. The tank was considered to be in good condition, although some rust was observed on the side of the tank. No visual evidence of leakage or spillage was observed at the time of the visit, and the site contact stated he was not aware of any leaks or spills having occurred.

A water tank was identified by the site contact to be located in the loft space to the rear of the building. Access was not available during the site inspection, as such the condition and volume of this tank could not be confirmed. The site contact reported that the tank is no longer in use and, was previously used as a cold water header tank.

A small (approx. 1,000l) water tank was identified in the loft to the front of the building. This was raised on a wooden plinth above the loft floor. No evidence of leaks or spills were identified by Ramboll.

Ramboll did not identify any further above ground tanks; located within the site red line boundary.

A diesel generator, and associated diesel tank, was identified adjacent to the northern site boundary. The tank was located in a steel bund, which was observed to be in good condition, with no evidence of leakage or spills. The tank's capacity was not indicated but based on its dimensions was estimated to be in approximately 1,000 litres in capacity. Although the generator and associated tanks were located off site, the site contacted stated that the generator is used as back-up power supply for the site building, and the adjacent BHF building. No staining was visually apparent in the area of the diesel generator and back up tank.

Water, Wastewater and Drainage

A drainage plan for the site was not available for review by Ramboll during the site inspection. The site contact reported that mains drainage connected the site to the municipal foul sewer system, and that the site was on a mains water supply.

The site contact stated that the site did not operate an oil-water interceptor; however, Ramboll observed a series of three manhole covers in a row in the car-parking area to the north which may relate to an oil-water interceptor. This could not be confirmed during the site inspection.

No current issues in relation to flooding were reported by the site contacts during the site visit.

Waste Storage and Disposal

The site is not currently active and as such no waste is produced. The building is being used for the storage of old furniture and refrigerators from other buildings on-site. The site contact stated that these would be removed, but that an exact date was not known.

Old fluorescent bulbs were identified in a cardboard box in a room on the ground floor. These were identified as waste bulbs previously used on site. The site contact could not confirm when or how these bulbs would be disposed of.

Deleterious Materials

Asbestos Containing Materials (ACM)

Ramboll did not identify asbestos labelling during the site walkover, although the site contact stated that asbestos had been identified in the boiler room during an asbestos survey.

An asbestos survey (2001) and four re-inspection reports (dated between 2011 and 2018) were provided for review. The initial survey identified asbestos containing materials in 22 locations, and included insulation debris (12 locations), asbestos cement and asbestos pipework. The survey indicated that asbestos had been removed from 6 locations, and asbestos debris identified on a wall had been encapsulated. The survey report recommended the removal of asbestos insulation debris, and the management ("*label and inspect regularly*") of asbestos in the lift motor room (soil pipe), main entrance (porch lining) and plant room (panel below window).

The 2011, 2016, 2017 and 2018 re-inspection reports investigated the condition of identified asbestos at four locations including the lift motor room, main entrance, plant room and laundry room (not identified in the 2001 survey report). The re-inspection reports did not report deterioration of the asbestos containing materials in these three locations, but each report recommended continued monitoring of these locations.

An asbestos survey has not been undertaken by Ramboll as it is outside the scope of this assessment.

Ozone Depleting Substances (ODS) and Fluorinated Greenhouse Gases (F-gases)

The site does not utilise air-conditioning units, and walk-in fridge/freezers were not identified. More than ten domestic-type refrigerators were being stored in a ground floor room. The refrigerant gas utilised by these fridges was not labelled.

Polychlorinated Biphenyls (PCB)

No potential PCB-containing equipment, such as electrical substations, were observed during the site inspection. It is reasonable to expect that the lift motor room may have used hydraulic oils with the potential to contain PCBs, although this could not be confirmed during the site inspection.

Emissions to Air

No significant emissions to air were noted. Two gas-fired boilers are located on site, which are currently in use by the adjacent building (British Heart Foundation). The site contact reported that a third unit was in use when the site was operational, but that this had recently been removed. The boilers were reportedly used for the provision of heating and hot water to the site.

Other Issues

According to the site representatives, there is no known history of complaints, enforcements or other regulatory actions regarding the site or immediate surrounding properties related to environmental conditions. No fire or spill events were reported.

5. HISTORICAL INFORMATION

Ramboll has undertaken a review of historical mapping and aerial imagery obtained from a Landmark Envirocheck environmental database, which is summarised below. Selected historical maps are presented in Appendix 1.

The Site

The earliest historical record of 1881 showed the site to be largely undeveloped, possibly in agricultural use. A track cut across the north-east corner of the site. By 1899, the site and the immediate surrounds to the east were labelled as 'Dellwood', an irregular-shaped building had been constructed towards the central north of the site, occupying approximately 15% of the total site area. An access road was present in the north-west of the site, providing access to the site from Liebenrood Road which formed the western site boundary.

No further significant changes were identified on the site until mapping from 1971 when the building footprint had been extended southward, occupying approximately 40% of the total site area. The site was identified as Dellwood Maternity Home. An electricity substation was evident along the southern site boundary, it is not clear from mapping whether this was on-site or immediately off-site.

By 1993, the western extent of the site was occupied by hardstanding (likely a car park). No further significant changes identified on subsequent map editions, up to the most recent map dated 2019.

The Surrounds

The earliest available historical map dated 1881 showed the immediate surrounds to be occupied by undeveloped land, possibly in agricultural use with some wooded areas present to the west (in Prospect Park) and occasional lodges/houses. A gravel pit was present from approximately 280m south-west of the site (extended to within 215m of the site boundary by 1911. Railway tracks were present approximately 595m east of the site.

By the early 1900s, three rectangular buildings, ancillary to the on-site building (labelled Dellwood), were present immediately to the north-east and east of the site, one of which was possibly a glasshouse or a 'lean-to' structure. Liebenrood Road formed the western boundary of the site and a number of additional residential properties had been developed in the immediate surrounds, including Wilton House to the east and Parkhurst to the south. Two additional gravel pits were evident from approximately 500m south-west and south of the site and three brick works with associated pits were indicated approximately 340m north-east, 500m north-west and 680m north-west of the site.

By 1932, an irregularly-shaped building had been developed adjacent to the east of the site and the gravel pit formally identified to 280m south-west of the site was no longer labelled, possibly infilled. Similarly, two of the former brick fields (located 340m north-east and 500m north-west) were no longer present and had been redeveloped with residential units. A new additional gravel pit was however indicated 390m south of the site.

By 1960, residential units had been built adjacent to the north of the site and a building labelled as "The Alice Jenkins Home" (care home unit) had been developed adjacent to the south. A corporation yard was present from approximately 215m south-west, formally identified as a gravel pit.

By 1970, the building adjacent to the east of the site had been extended northward and was labelled as "Dellwood Maternity Home". This building had been extended again to the east by 1993 and was labelled as "Dellwood Community Hospital". Residential units had replaced The Alice Jenkins Home by 2006. Subsequent records showed no significant changes occurring within the site's surrounding areas until the most recent map available dated 2019 except for a general urban and commercial development of Reading.

6. ENVIRONMENTAL DATABASE INFORMATION

The following information has been obtained from a review of Landmark Envirocheck environmental database records procured by Ramboll relating to the site and surrounding land.

Data Type		Distance				Relevant records within 250m of the site
		On Site	<250m	250-500m	500m-1km	
Contaminated Land Register enquiries		0	0	0	0	None
Pollution incidents		0	0	0	0	None.
Prosecutions or enforcement actions		0	0	0	0	None.
Recorded landfill sites		0	0	0	0	None.
Historical landfill sites		0	0	0	0	None.
Licensed waste management facilities		0	0	0	0	None.
Potentially infilled land (non-water)		0	1	4	9	One area of potentially infilled ground is identified to an address 188m SW of the site. Ramboll considers that this likely correlates with a gravel pit identified on historical mapping of the surrounding area although measured to be 280m south west on maps.
Potentially infilled land (water)		0	0	0	1	None.
Environmental Permits	Part A(1)	0	0	0	0	None.
	Part A(2)	0	0	0	0	None.

	Part B	0	0	0	5	None.
Control of Major Accident Hazards Sites (COMAH)		0	0	0	0	None.
Fuel stations		0	0	0	2	None.
Contemporary trade directory entries		1	2	8	85	The Duchess Of Kent House, Dellwood Community Hospital. Located on-site and immediately to the east of the site, inactive. There are no active entries within a 250m radius of the site. Inactive entries include two for hospitals.
Registered radioactive substances		0	0	0	2	<i>Information on certain radioactive substance authorisations is not publicly accessible.</i>
EA discharge consents		0	0	0	1	None.
Radon affected area (Y/N)		N	-	-	-	N/A
Designated ecological sites		0	0	0	1	None.

The LinesearchbeforeUdig database lists pipelines distributing crude oil and refined hydrocarbon products owned and/or operated by a number of UK pipeline operators, including BPA, BP, ConocoPhillips, Esso, Government Pipelines and Storage System, Sabic, Shell and Total. According to the database, there are no records of underground oil or refined hydrocarbon products pipelines on the site or within 250m. However, there are records of assets owned by SGN (a gas distribution company) on-site and within 250m of the site boundary.

7. REGULATORY AUTHORITY INFORMATION

Planning Department

Ramboll has obtained a planning history of the site from the Planning Department at Reading Borough Council for Dellwood Hospital. Relevant applications are summarised as follows:

- **0000003250**: Reinstatement of Nursing Wing. Conditional Consent Granted August 1977.
- **12/01842/FUL**: Single storey front and side extensions. Conditional consent granted 18/02/2013.
- **98/00515/FD**: Replace existing external fire escape and form new internal fire escape stairs fire precaution work to existing building. Conditional consent granted on 15/07/1998.
- **85/TP/1027**: Erection of new haemodialysis unit. C.18/84. Decision unknown, 27/08/1998.
- **88/TP/0517**: Erection of 22 bed ward & day care centre to rear of existing hospital including enabling works block & initial alterations to existing kitchens & staff rooms c18/84. Decision unknown, 27/08/1998.

Environmental Protection Department

The Environmental Protection & Nuisance Department at Reading Borough Council confirmed the following in respect of the site:

- the site has not been identified for inspection or further review under the Council's Contaminated Land Strategy under Part 2A of the Environmental Protection Act 1990;
- the Council does not hold any records of any contamination issues associated with the site or surrounding properties;
- there are no current or former landfills located within a 250m radius of the site;
- the Council has not identified elevated indoor radon gas concentrations within buildings on or within 100m of the site. No radon protection measures have been installed in buildings on site or within 100m of it;
- the Council does not hold any records of current or former nuisance issues at the site or adjoining properties; and
- there are no Environmental Permits issued to the site or to adjoining properties.

Petroleum Licensing Authority

The Petroleum Licensing Authority at Reading Borough Council confirmed that it holds no record of current or historical licensed petroleum storage at the site or at any nearby address. There are no entries of disused and decommissioned tanks reported at the site or at any nearby address. Furthermore, there are no records of spillages or leaks of petroleum at the site area or within the immediate surrounds.

8. ENVIRONMENTAL SETTING

Geology / Hydrogeology

According to the British Geological Survey 1:50,000 mapping of the area (Sheet 268, Reading) and the online BGS Geology of Britain Viewer, the site is directly underlain by superficial deposits of the Lynch Hill Gravel Member (sand and gravel, classified as Secondary A Aquifer). The underlying solid geology comprises the Lambeth Group (also classed a Secondary A Aquifer and composed of clays with sand and gravel), and at depth, the Upper Chalk Formation (a Principal Aquifer).

The site is situated within an area characterised by potential for Groundwater Flooding of Property situated Below the Ground Level according to BGS records.

According to the Coal Authority, the site is not located in a Coal Mining Affected Area. According to the BGS, the site is located in an area where other (non-coal) mining activities are 'highly unlikely'.

The EA currently classifies groundwater at the site (Berkshire Downs Chalk) as being of 'poor' chemical quality and of 'poor' quantitative status under the Water Framework Directive classification scheme (2016 data).

According to EA information provided in the Landmark Envirocheck database, there are no groundwater abstractions within 1km of the site however, there are 29 licensed groundwater abstractions (with multiple abstractions) located within a 2km radius of the site, as detailed below.

Operator	Distance	Purpose	Source / Location
Network Rail Infrastr Ltd/ Railtrack GW (two permit versions)	1.01km S	Transport: general use	Southcote
West Berkshire Health Authority	1.22km N	Hospitals: drinking; cooking; sanitary; washing; (small garden)	Battle Hospital, Oxford Road, Reading
Mr D A Drayton (four abstractions points)	1.46km, 1.68km, 1.70km and 1.98km N	General farming and domestic	Little John's Farm, Reading
Hillier Group Of Companies (two abstraction points)	1.68km and 1.73km NE	Metal: process water	Cardiff Road
Thames Water Utilities Ltd (two permit versions and five abstraction points)	1.73km, 1.77km, 1.88km, 1.93km and 1.99km SE	Public water supply	Fobney Pumping Station 'BH E'
Prudential Ibis Club	1.82km N	Sports grounds/facilities: drinking; cooking; sanitary; washing; (small garden); spray irrigation	Scours Lane, Reading
Reading Borough Council	1.88km N	General farming and domestic	Scours Lane, Reading (A - R)
British Road Services Ltd	1.88km NE	Vehicle washing	Cardiff Road, Reading
Reading Town Football Club	1.88km N	Sports grounds/facilities: drinking; cooking; sanitary; washing; (small garden);	Scours Lane, Reading Town F.C, Reading

Of the 29 licensed groundwater abstraction locations, five are registered to Thames Water Utilities to abstract potable water (located from 1.73km to 1.99km south-east of the site).

The Environmental Protection Department at Reading Council confirmed that a private water supply is located within 1.4 km of the site. No further information could be provided by the Department.

The site is not located within an EA designated groundwater Source Protection Zone.

Groundwater could be expected to flow in a broadly southerly direction assuming it is in continuity with surface water in the wider area. Groundwater may be shallow at the site, within 5m or 10m of ground level based on the elevation of ponds and surface water courses in the wider area.

Hydrology

The nearest surface watercourse is an unnamed drain located approximately 931m south of the site at its nearest point. The nearest watercourse with current EA river quality data is the Holy Brook, located approximately 940m south of the site classified with 'moderate' ecological quality and 'good' chemical quality under the Water Framework Directive classification scheme (2016 data).

According to the EA, the site is within a Flood Zone 1 (low probability). This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding (<0.1% in any year).

According to an independent, third party environmental database, there are three licensed surface water abstractions within a 2km radius of the site. The closest of which is licensed to Thames Water Utilities Ltd for public water supply. Details of the abstractions are reported in the table below.

Operator	Distance	Purpose	Source / Location
Thames water Utilities Ltd	1.73km SE	Public Water Supply	Kennet and Avon Canal at Fobney Waterworks intake
Environment Agency	1.85km SE	Aquaculture: fish farm/cress pond throughflow	River/stream/row of well points; Kennet And Avon Canal at Fobney Fish Farm intakes
Environment Agency	1.88km SE	Aquaculture: fish farm/cress pond throughflow	River/stream/row of well points; Kennet And Avon Canal at Fobney Fish Farm intakes

9. ASSESSMENT AND CONCLUSIONS

Historically, the site was shown as undeveloped and in potential agricultural use until the late 1890s when a building appeared to be constructed within its central-north section (labelled as "Dellwood"). No further significant changes occurred within the premise until the early 1970s when the building footprint had extended to the south and an electricity substation was shown along the southern site boundary. The Environmental Health Department of the Reading Borough Council has not identified the site as a priority for inspection under its Contaminated Land Inspection Strategy. **Potential for historic on-site contamination: Low**

The site is currently occupied by a vacant hospital building, formerly used as a palliative care unit. No activities with the potential for significant contamination were identified during the site inspection. A heating oil tank was located in the east of the site, which was reported by the site contact to have been disused for at least 15 years. Ramboll did not identify any evidence of leaks or spills associated with this tank. **Potential for current on-site contamination: Low to Moderate**

Since the first historical map available dated 1881, the site's surroundings presented undeveloped land in possible agricultural use with woodland areas and occasional lodges/houses. Gravel pits were present beyond 250m from the 1930s until the c.1960s. The age and distance of these gravel pits are considered to mitigate potential risks to the site. Further hospital development occurred to the east in the 1930s. No further significant changes occurred within the surroundings until the most recent map available dated 2019 except for further urban and commercial development of Reading. **Potential for off-site contamination: Low**

The site is considered to be located within a sensitive location with regard to groundwater resources. The site overlies Secondary A aquifers but is not located within a Groundwater Source Protection Zone II. There are no groundwater abstractions within 1km of the site however, there are 29 licensed groundwater abstractions (with multiple abstractions) located within a 2km radius of the site. Of these, five are registered to Thames Water Utilities to abstract potable water (located from 1.73km to 1.99km south-east of the site). Groundwater could be expected to be reasonably shallow at the site. **Groundwater sensitivity and vulnerability: Low to Moderate**

The site is considered to be located in a low sensitivity setting with regard to surface water resources, as the nearest surface watercourse is an unnamed land drain located approximately 931m south of the site at its nearest point. There are three licensed surface water abstractions within a 2km radius of the site, the closest of which (1.73km south-east of the site) is licensed to Thames Water Utilities Ltd for public water supply. **Surface water sensitivity and vulnerability: Low**

According to the EA, the site is located in Flood Zone 1 (low probability).

In conclusion and on the basis of the above information, Ramboll considers that, overall, there is a low risk of the site, in its current use, being identified as representing a significant risk to receptors due to contamination. Whilst oil storage appears to have taken place, the infrastructure appeared to be in good condition with no apparent staining which would suggest losses or leaks. A watching brief for contamination would likely be required to be implemented during ground works in relation to future development.

10. CONTAMINATION RISK RANKING**Low**

The conclusions presented in this report represent Ramboll Environment and Health UK Limited's best professional judgment based upon the information available and conditions existing as of the date of this report. In performing its assignment, Ramboll Environment and Health UK Limited must rely upon publicly available information, information provided by the Client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll Environment and Health UK Limited was accurate and complete. This review is not intended as legal advice, nor is it an exhaustive review of site conditions or facility compliance. Ramboll Environment and Health UK Limited makes no representations or warranties, expressed or implied, about the conditions of the site.

Ramboll Environment and Health UK Limited's scope of work for this assignment did not include collecting samples of any environmental media. As such, this review cannot rule out the existence of latent conditions including contamination not identified and defined by the data and information available for Ramboll Environment and Health UK Limited's review; however, this report is intended, consistent with normal standards of practice and care, to assist the Client in identifying the risks of such latent conditions

APPENDIX 1 SELECTED HISTORICAL MAPS



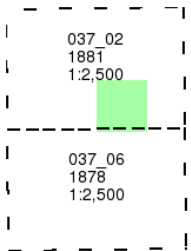
Berkshire

Published 1878 - 1881

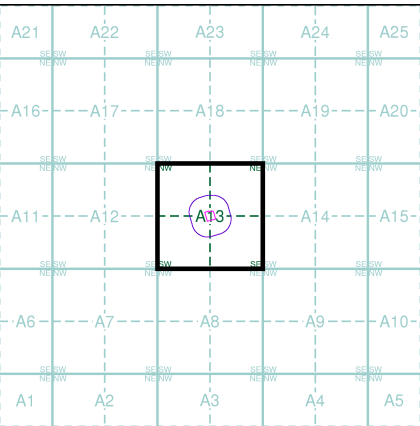
Source map scale - 1:2,500

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 A13



Order Details

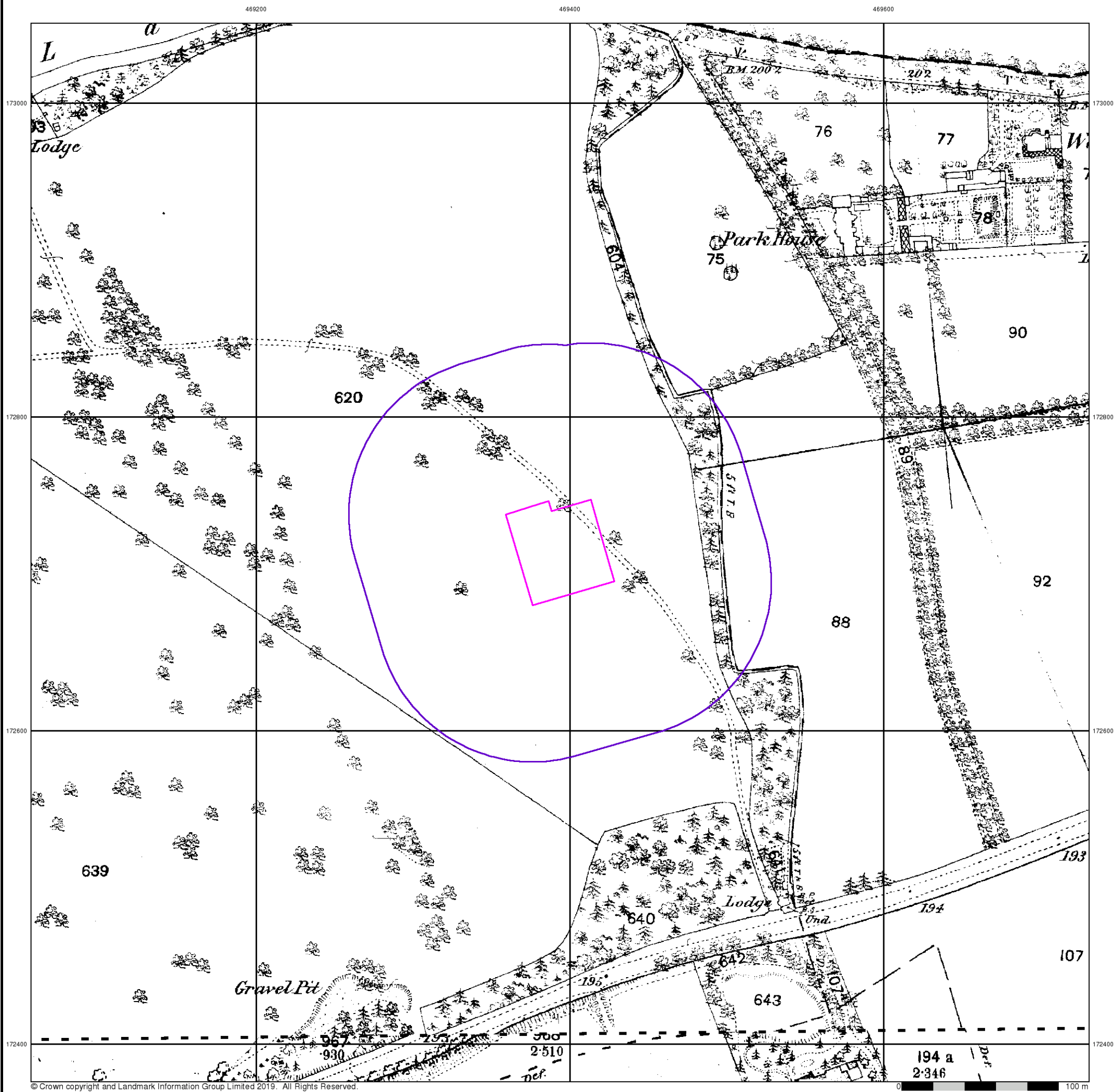
Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 100

Site Details

Dellwood Hospital, 22, Liebenrood Road, READING, RG30 2DX



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





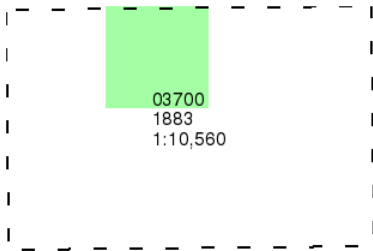
Berkshire

Published 1883

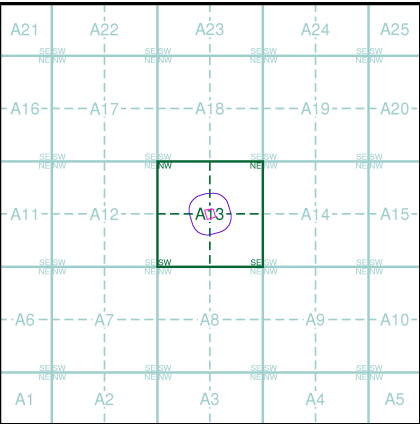
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 1000

Site Details

Dellwood Hospital, 22, Liebenrood Road, READING, RG30 2DX



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



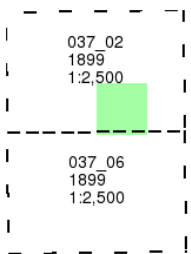
Berkshire

Published 1899

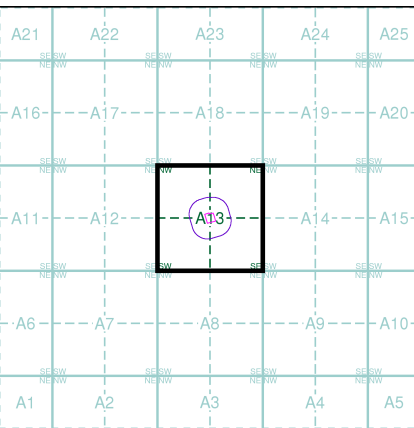
Source map scale - 1:2,500

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 A13



Order Details

Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 100

Site Details

Dellwood Hospital, 22, Liebenrood Road, READING, RG30 2DX

Landmark
INFORMATION GROUP

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



Berkshire

Published 1913 - 1914

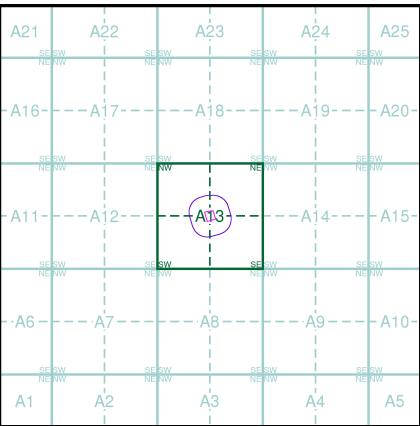
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

029SW 1914 1:10,560	029SE 1914 1:10,560
037NW 1914 1:10,560	037NE 1913 1:10,560

Historical Map - Slice A



Order Details

Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 1000

Site Details

Dellwood Hospital, 22, Liebenrood Road, READING, RG30 2DX



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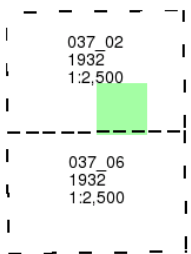
Berkshire

Published 1932

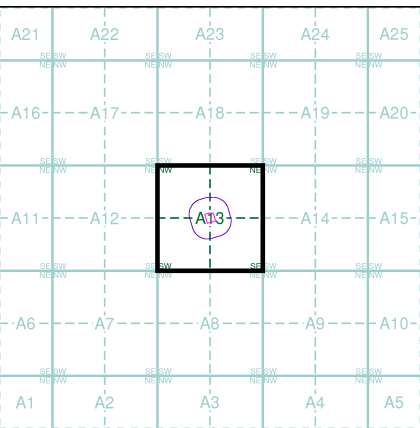
Source map scale - 1:2,500

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 A13



Order Details

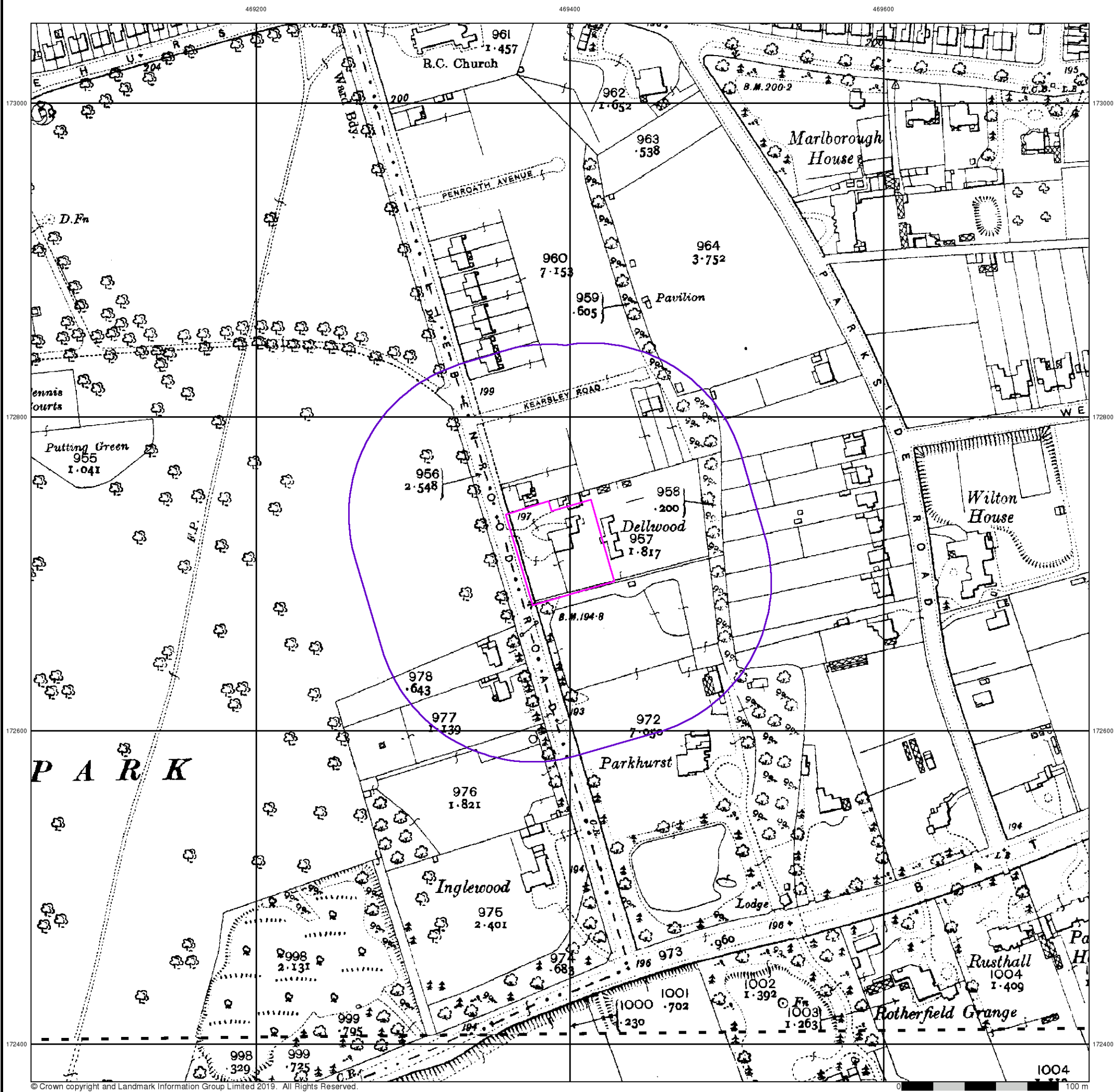
Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 100

Site Details

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Landmark
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Berkshire

Published 1938

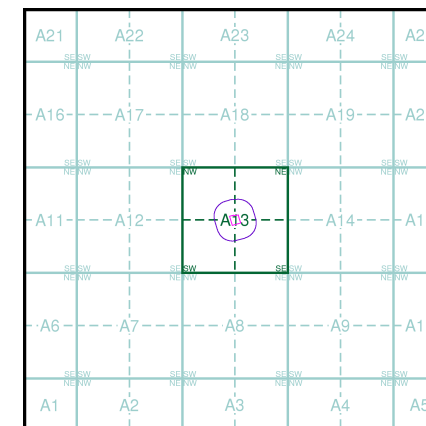
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

029SW 1938 1:10,560	029SE 1938 1:10,560
037NW 1938 1:10,560	037NE 1938 1:10,560

Historical Map - Slice A



Order Details

Order Number: 192344555_1_1
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Slice: A
Site Area (Ha): 0.32
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Site Details

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Ordnance Survey Plan

Published 1970 - 1976

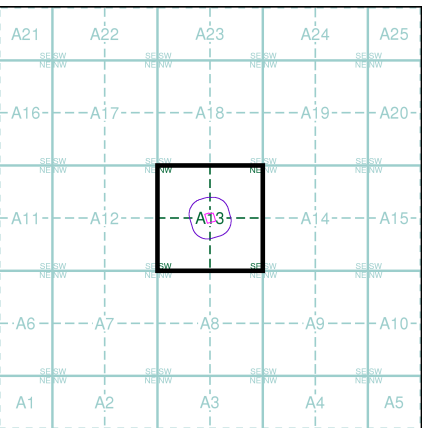
Source map scale - 1:1,250

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)

U6973SV	U6973SE
973	974
1:1,250	1:1,250
U6972NV	U6972NE
971	970
1:1,250	1:1,250
U6972SV	U6972SE
973	976
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 100

Site Details

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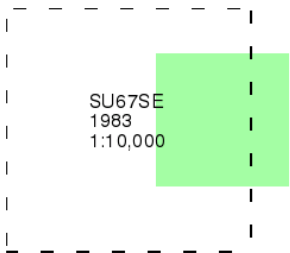
Ordnance Survey Plan

Published 1983

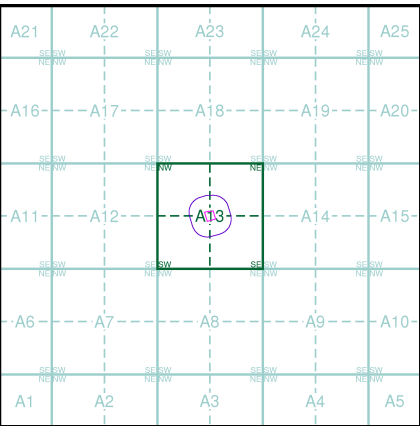
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

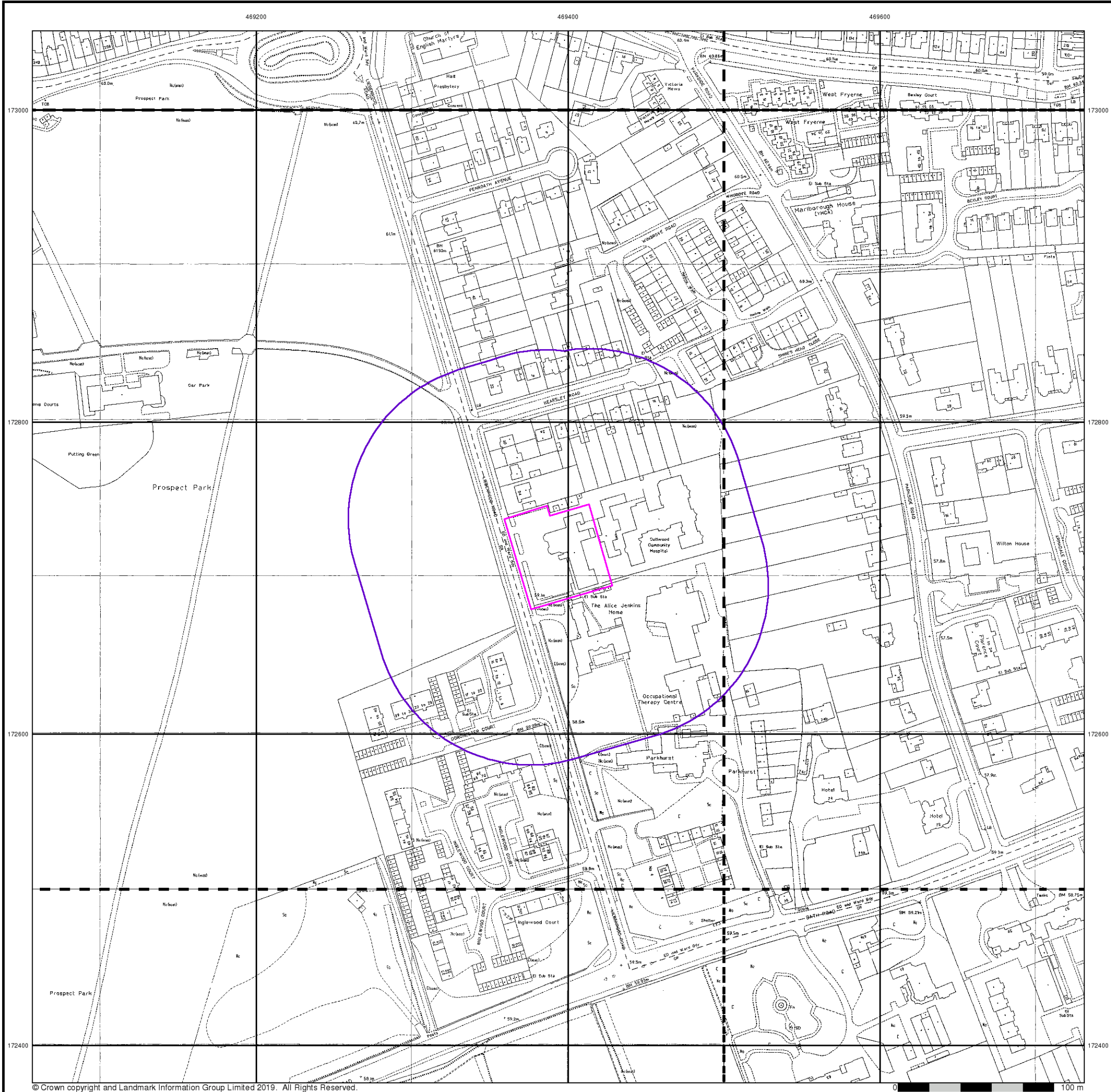
Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 1000

Site Details

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Large-Scale National Grid Data

Published 1993

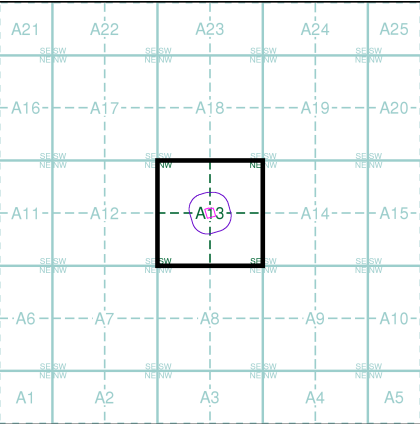
Source map scale - 1:1,250

'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)

U6973SV	U6973SE
993	1993
1:1,250	1:1,250
U6972NV	U6972NE
993	1993
1:1,250	1:1,250
U6972SV	U6972SE
993	1993
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 192344555_1_1
Customer Ref: 1700003544_Dellwood Hospital
National Grid Reference: 469390, 172720
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Site Details

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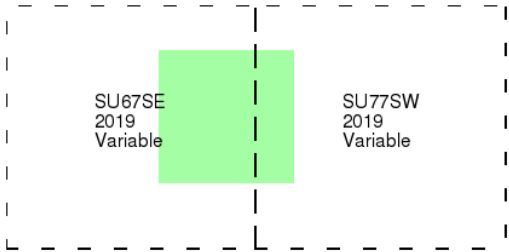
VectorMap Local

Published 2019

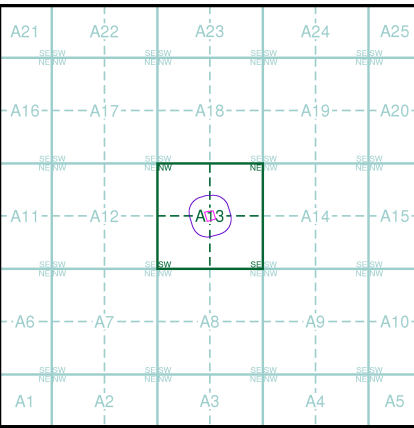
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 192344555_1_1
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