

Land off Church Road, Laverstock, Salisbury

Geo-Environmental Phase I Desk Study

Hallam Land Management Ltd

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Appendices

Appendix A – Historical map index and Historical Site Mapping – Ordnance Survey

1 Introduction

- 1.1 Brookbanks Consulting Ltd is appointed by Hallam Land Management to complete a Phase 1 Geo-Environmental Desk Study for a proposed development on Land off Church Road, Laverstock, Salisbury.
- 1.2 The objective of the study is to research the likely geotechnical and chemical characteristics of the soil and ground water environment.

Location and Details

- 1.3 The proposed development lies approximately 2.3km north east of Salisbury town centre, Wiltshire. The site is bound by Church Road to the west, residential properties to the northwest, agricultural fields to the north east, east and south east. The south west of the proposed site is bound by an electrical supply shop. The land is not thought to have been historically subject to any significant built development.
- 1.4 The Site location and boundary is shown indicatively on **Figure 2-1** below.

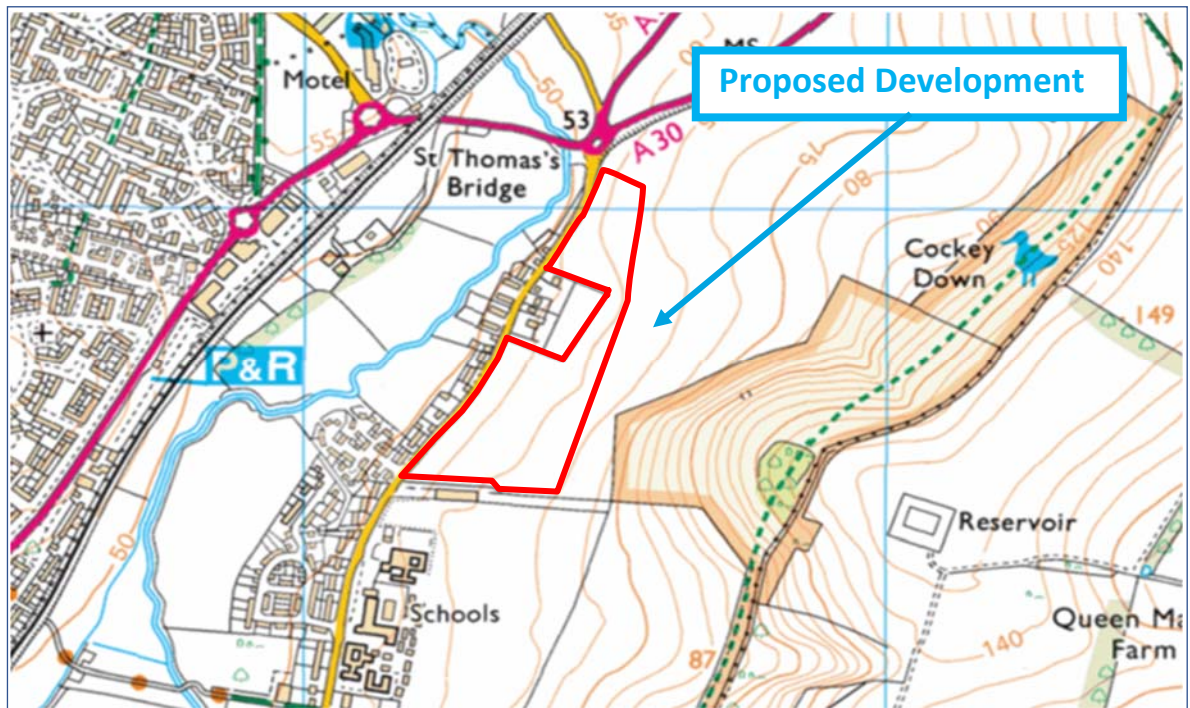


Figure 1-1: Site Location

Development Criteria

- 1.5 The proposed development is to comprise of the erection of up-to 135 dwellings, the laying out of a car park with up-to 50 spaces, access from Church Road, Green Infrastructure including landscaping and children's play, a sustainable urban drainage system and utility buildings.

Sources of Information

1.6 The following bodies have been consulted while completing the study:

- Environmental Matters - Environment Agency

1.7 The following information has been gathered during the study:

- Environmental Search - Landmark Envirocheck Report, July 2020
- Published Geology - British Geological Survey
- UXO Pre-desk Study Assessment - Zetica UXO, July 2020

2 Historical Site Uses

- 2.1** In appraising the Site history, published Ordnance Survey maps have been reviewed dating from 1883 up to the present day. A selection of large scale maps used in this report, are contained within the Appendix.
- 2.2** Inspection of the Ordnance Survey maps has revealed that since 1883, the Site has remained undeveloped.
- 2.3** The residential expansions of Laverstock (since 1962) and Hampton Park/Bishop Down (since 1981) are shown within the south west and west of the Site, respectively. A number of road infrastructure is shown around the Site, supplying the adjacent residential expansions.
- 2.4** The historical activities described above, and further activities shown within the surrounding area are presented in **Table 2-1** (offsite):

Site Use / Activity	Date First Shown	Date Last Shown	Approximate Distance (m)	Direction
Church Road	1883	Still Present	Bounds	West
Works	2000	Still Present	10	South
Dwellings	1883	Still Present	25	North West
Laverstock Expansion	1962	Still Present	25	South West
Factory	1981	2000	150	West
Tank	1981	2000	150	West
School	1981	Still Present	200	South
School	1981	Still Present	225	South
London Road	1883	Still Present	275	North & West
London and South Western	1883	Still Present	400	West
Hampton Park and	1981	Still Present	500	West
Pit	2000	2020	500	North West

Table 2-1: Offsite Historical Site Uses

- 2.5** Potentially significant contaminative land uses within the wider surrounding area includes: Roads (Church Road and London Road), Works, Former Factory, Former Tank, London and South Western Railway and Former Pit.
- 2.6** The following potentially significant contaminative land uses are on or within close proximity of the site and will be further assessed within Section 10: **Agricultural, Roads, Works, Former Factory/Tank, and Railway Line.**

3 Recent & Current Site Usage

- 3.1** The Site is shown to be currently undeveloped. The historical map search suggests that the land has previously been set as agricultural land.

4 Ground Conditions

Geology

- 4.1 With reference to the British Geological Survey map, the entire Site is shown to be underlain by chalk of the Newhaven Chalk Formation. This is further illustrated in **Figure 4-1**;

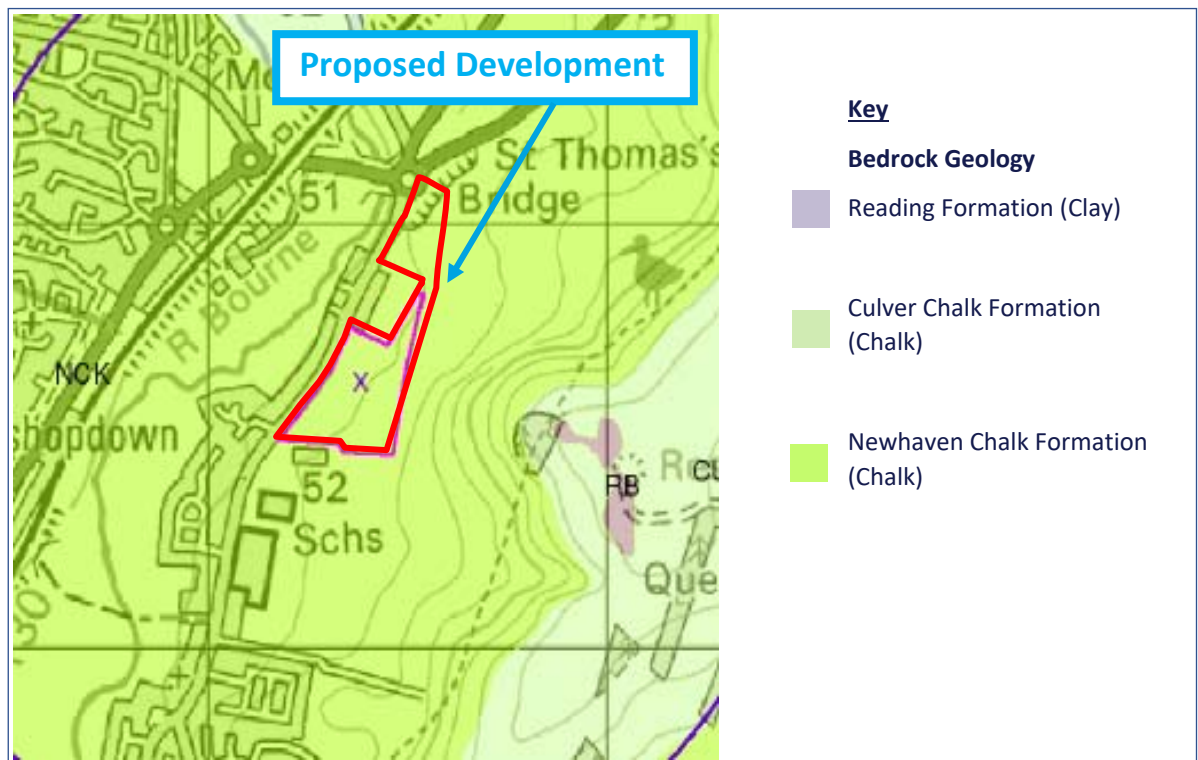


Figure 4-1: BGS Published Bedrock Geology

- 4.2 With regards to the Superficial Deposits, the majority of the Site is shown to be overlain by clay, silt, sand and gravel Head deposits. This is further illustrated in **Figure 4-2**;

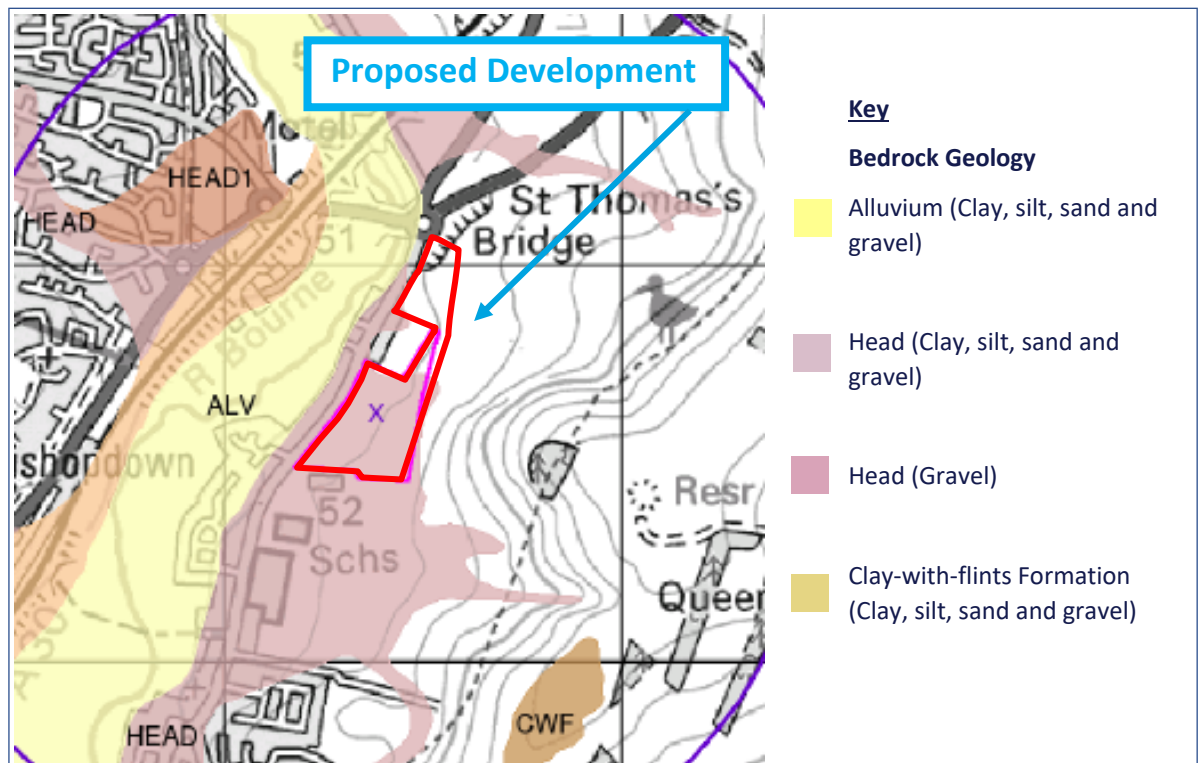


Figure 4-2: BGS Published Superficial Deposits

- 4.3 In addition, there are no areas of Artificial Ground/ Made Ground or Landslip areas reported on Site.
- 4.4 BGS records include the following ratings for a number of potential ground stability hazards on or within 250m of the Site boundary:
- | | |
|---------------------------------|-------------------------------|
| • Collapsible ground stability: | No Hazard / Very Low* |
| • Compressible ground: | No Hazard* / Moderate |
| • Ground Dissolution: | Very Low* / Low* |
| • Landslide: | No Hazard* / Very Low* / Low* |
| • Running Sand: | No Hazard* / Very Low* / Low* |
| • Shrinking & Swelling Clay: | No Hazard* / Very Low* |

*stability hazard reported on Site

Mining

- 4.5 The Site is not reported to be in an area affected by **Coal Mining**.
- 4.6 The Site is not reported to be in an area affected by **Man-Made Mining Cavities**, or **Mining Instability**
- 4.7 The Site is reported to be situated in a Rare **Non Coal Mining Areas of Great Britain**.
- 4.8 A **Natural Cavity** is shown approximately 542m east of the Site, with the cavity type not supplied.
- 4.9 There are no **BGS Recorded Mineral Sites** recorded within 1,000m of the Site boundary.

Radon

- 4.10 The Site is shown to be situated within a lower probability area affected by radon, where less than 1% of homes are above the action level.
- 4.11 It is reported that no radon protection measures are necessary for the construction of new developments within the Site.

Estimated Soil Chemistry

- 4.12 The Envirocheck report provides the following estimated soil chemistry* on Site, which is further illustrated in **Table 4-1**:

Potentially Harmful Elements	BGS Estimated Soil Chemistry Concentration (mg/kg)
Arsenic	<15
Cadmium	< 1.8
Chromium	60-90
Lead	<100
Nickel	15 - 30

Table 4-1: BGS Estimated Soil Chemistry

Estimated Soil Chemistry dataset provides modelled estimates of ambient background concentrations of Potentially Harmful Elements (PHE) in topsoil: Arsenic (As), Cadmium (Cd), Chromium (Cr), Nickel (Ni) and Lead (Pb). The data has been created by combining high resolution geochemical data (from the BGS G-BASE and Imperial College Wolfson geochemical survey database) and the soil parent material maps derived from the BGS DiGMapGB geological data and covers the whole of Great Britain (excluding London).

- 4.13 If required at the detailed design stage, confirmation of the existing site-specific soil chemistry can be established via a Phase II ground investigation.

5 Hydrology

Flooding

- 5.1 The Environment Agency's (EA) National Generalised Modelling (NGM) Flood Zones Plan indicates predicted flood envelopes of Main Rivers across the UK. In many circumstances, the NGM is based on basic catchment characteristic data and modelling techniques. Where appropriate, more accurate Section 105 / SFRM models are produced using more robust analysis techniques.
- 5.2 Reference to the online Flood Estimation Handbook shows the Site lies approximately 370m east of the River Bourne with no watercourses or drainage networks onsite. Figure 5-1 illustrates the watercourses and feature described above.

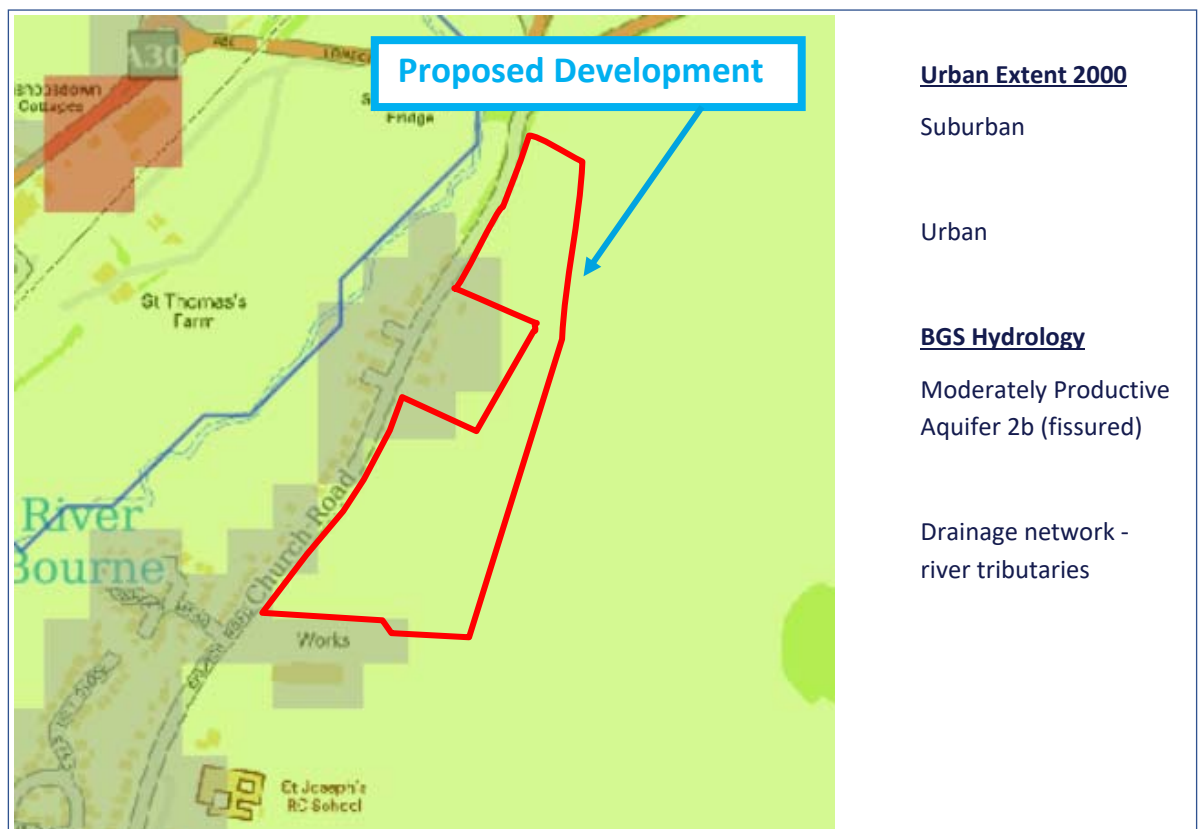


Figure 5-1: FEH Web Search – Urban Extent 2000 and BGS Hydrology and Drainage Network

- 5.3 The EA mapping shows that the site lies within Flood Zone 1; being an area of Low Probability of flooding and outside both the 1 in 100 (1% AEP) and 1 in 1,000 (0.1% AEP) year flood events. This is further illustrated on Figure 5-2:

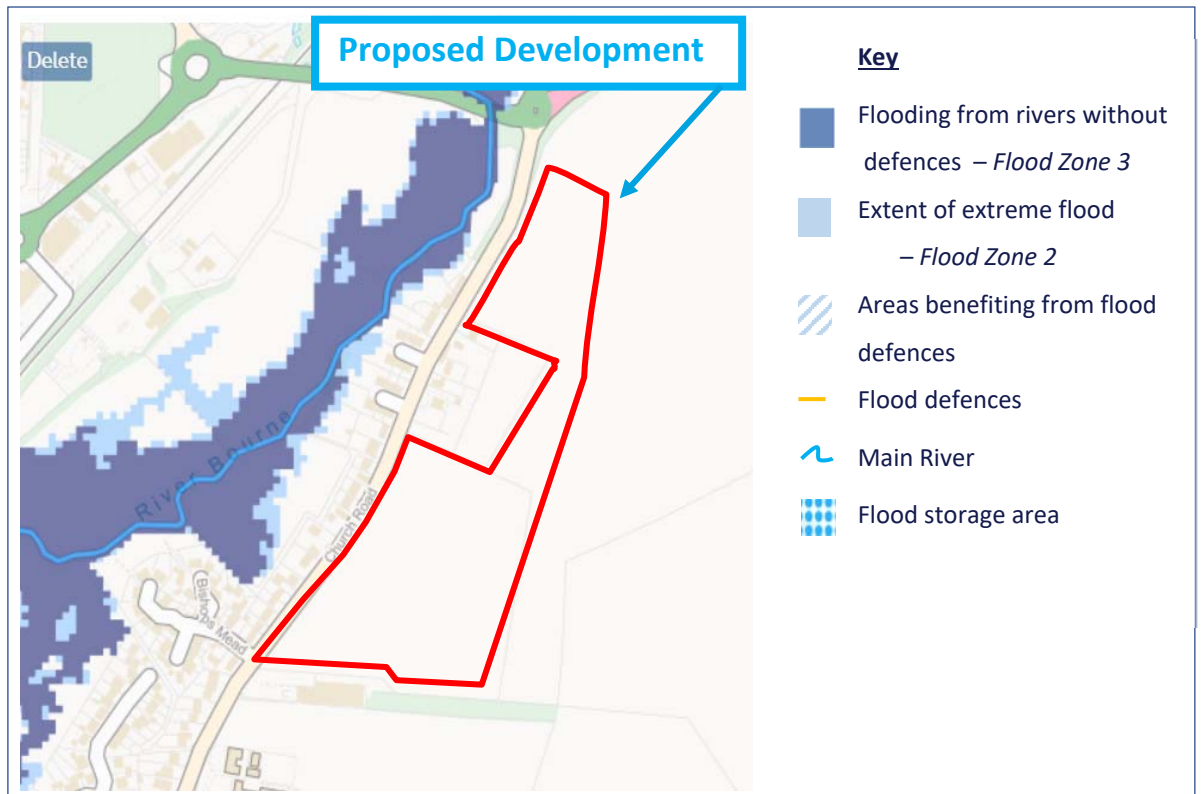


Figure 5-2: EA Flood Zone Plan showing 1 in 100 & 1 in 1,000 year floodplains

5.4 **Figure 5-3** illustrates the Site is at very low risk of surface water flooding. Initial investigations suggest that the risk of overland flow relates primarily to the topography of the site; low areas of the site naturally store water limiting the surface runoff in concentrated areas.

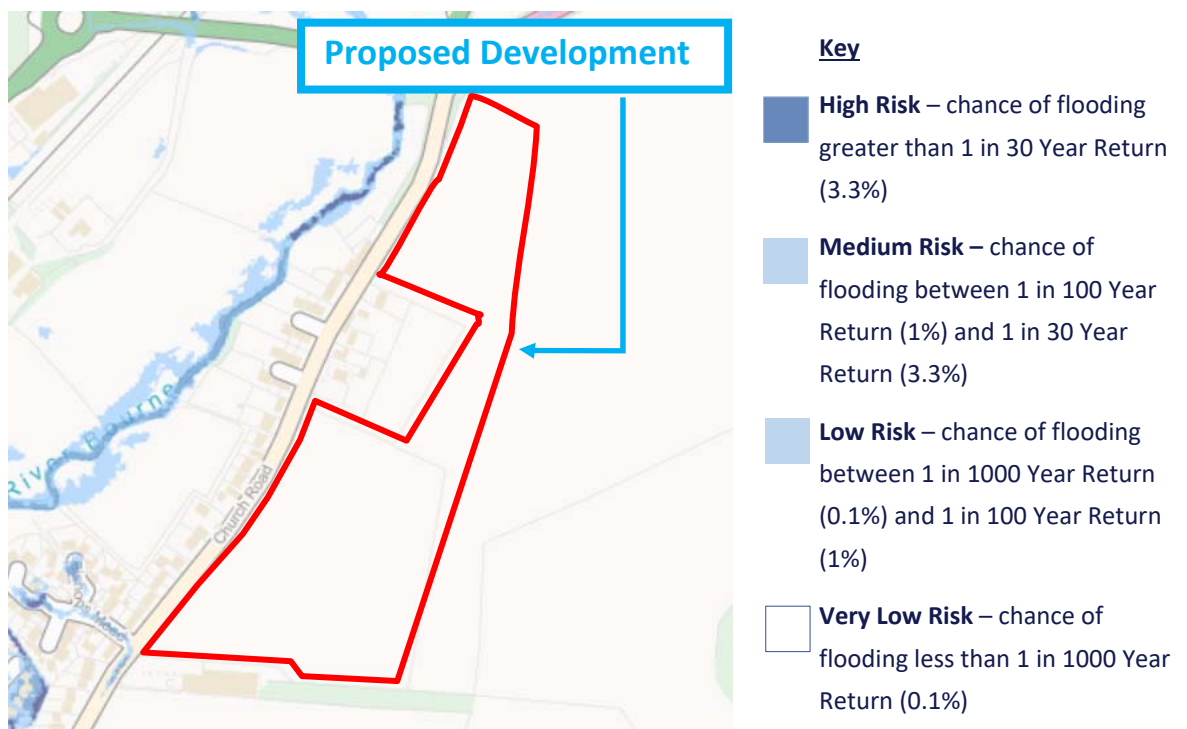


Figure 5-3: EA Long Term Flood Risk Maps – Flood risk from Surface Water

- 5.5 **Figure 5-4** illustrates the BGS Groundwater Flooding Susceptibility. The Site is shown to lie within areas with Limited potential for Groundwater Flooding to occur and potential for groundwater flooding at property situated below ground level. The furthest west of the Site is shown to be situated within areas of potential for groundwater flooding to occur at the surface.

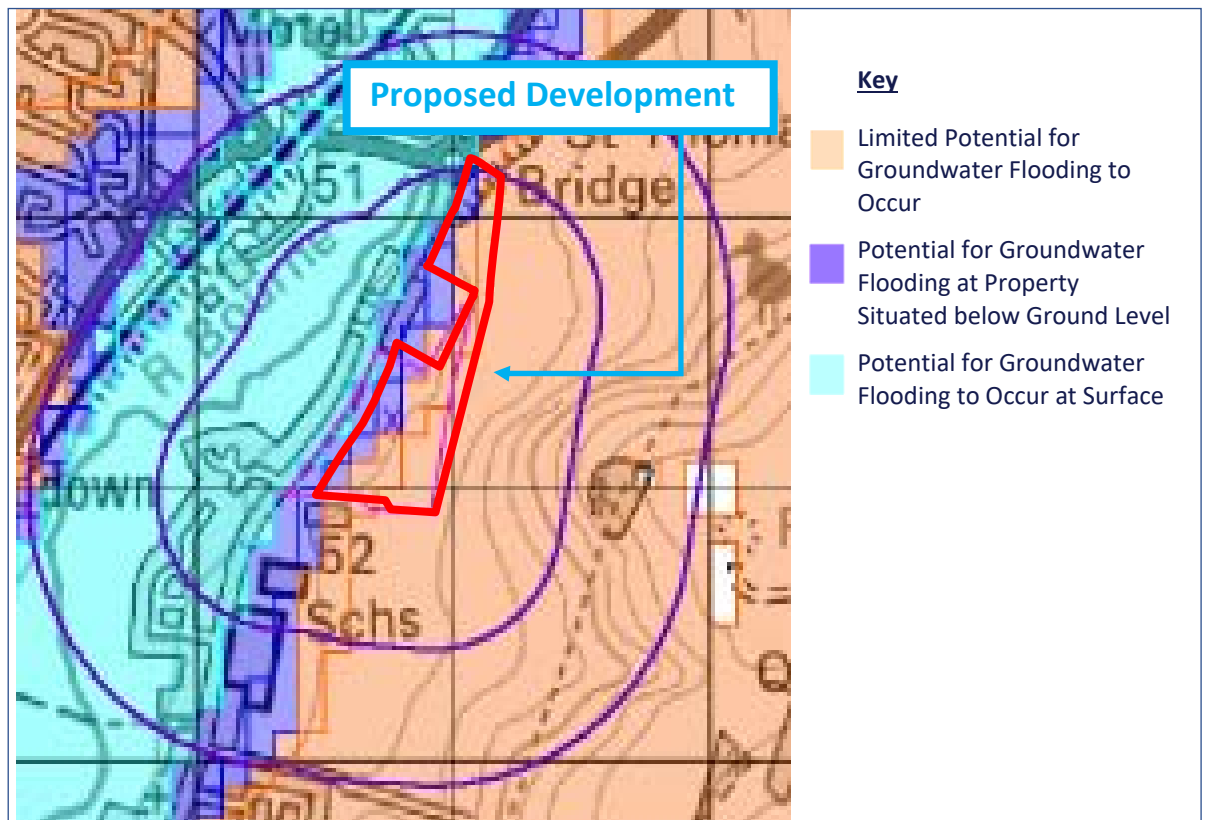


Figure 5-4: BGS Groundwater Flooding Susceptibility

Discharge Consents

- 5.6 There are five **Discharge Consent**, reported within the Envirocheck Report, within 1,000m of the proposed site and these are further detailed below:
- Mr D J Legg at Rex Car Sales Riverbourne, London Road, Salisbury approximately 469m west of the Site for the discharge of Sewage (Final/Treated Effluent – Not Water Company). The current status is: Varied (under EPR 2010).
 - Mr D J Legg at Rex Car Sales Riverbourne, London Road, Salisbury approximately 469m west of the Site for the discharge of Sewage (Final/Treated Effluent – Not Water Company). The current status is: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995).
 - Crest Homes (Southern) Ltd at Bishopsdown Farm, London Road, Salisbury approximately 536m north of the Site for the discharge of Other Matter (Surface Water). The current status is: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995).
 - Crest Homes (Southern) Ltd at Bishopsdown Farm, London Road, Salisbury approximately 540m north of the Site for the discharge of Surface Water. The current status is: Not Supplied.
 - Mr and Mrs M Kibble White at New House adjacent to Ford Farmhouse, Ford, Salisbury approximately 919m north of the Site for the discharge of Sewage (Final/Treated Effluent – Not Water Company). The current status is: New Consent (by Application – Water Resources Act 1991, Section 88).

Water Quality

- 5.7** The Environment Agency monitor 40,000km of rivers across England. To help protect these areas each stretch of river was monitored between 1990 and 2009 and given a river quality grade. The General Quality Assessment (GQA) scheme was based upon the chemical quality of the water and graded from A to E, with A representing a river with very good water quality and E, a river with very poor water quality.
- 5.8** With reference to the Environment Agency it was reported the following water quality information:
- River Bourne (Reach: Boscombe-Conf with Hamp Avon): River Quality of A, approximately 76m north west of the Site.
- 5.9** There are no **River Quality Chemistry Sampling Points** or **River Quality Biology Sampling Point** situated within 1km of the Site boundary.

Surface Water Abstraction

- 5.10** There are three **Surface Water Abstraction** permits recorded within 2,000m of the Site boundary, these are outlined below in **Table 5-1**:

Operator - Location	Abstraction	Permit Start Date	Permit End Date	Distance (m)	Direction
Mr & Mrs E Rippier – R. Bourne at Ford	Private Non-Industrial Amenity: Lake and Pond Throughflow	April 2019	Not Supplied	1045	North
Dolphin Farms Ltd – River Bourne at Ford	Environmental: Non-remedial River/Wetland Support – Transfer between sources	October 2008	Not Supplied	1257	North
Messrs M H Dean & Son – R. Bourne at Milford Mill Bridge	General Agriculture: Spray Irrigation – Direct	July 1972	Not Supplied	1763	South

Table 5-1: Surface Water Abstractions

6 Hydrogeology

Bedrock and Superficial Aquifer Designations

- 6.1 The underlying chalk of the Newhaven Chalk Formation is shown to form a Principal Aquifer. This is further illustrated below in **Figure 6-1**.

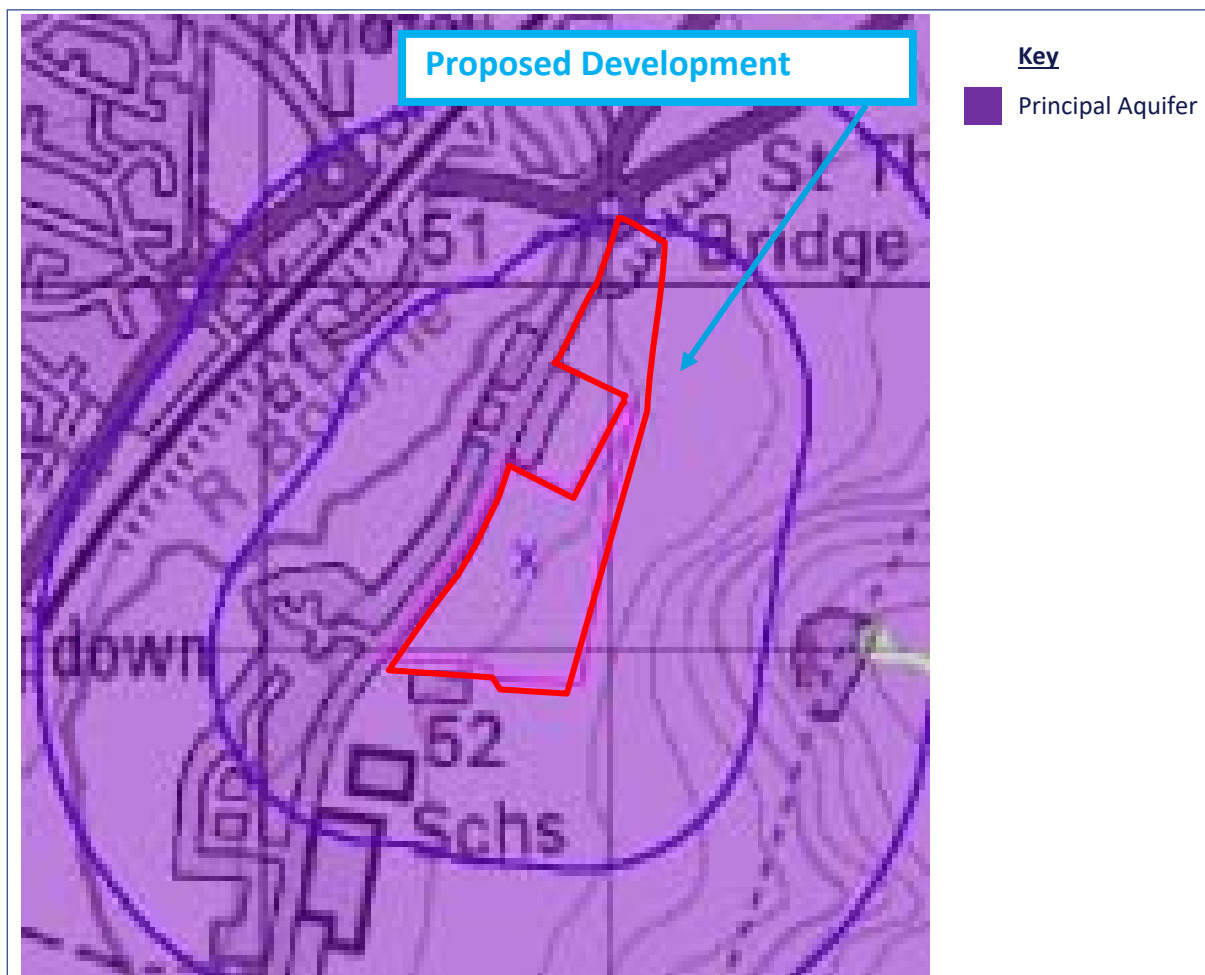


Figure 6-1: BGS Bedrock Designation

- 6.2 The superficial Head deposits on Site are shown to be designated a Secondary (Undifferentiated) Aquifer on site, as illustrated below in **Figure 6-2**:

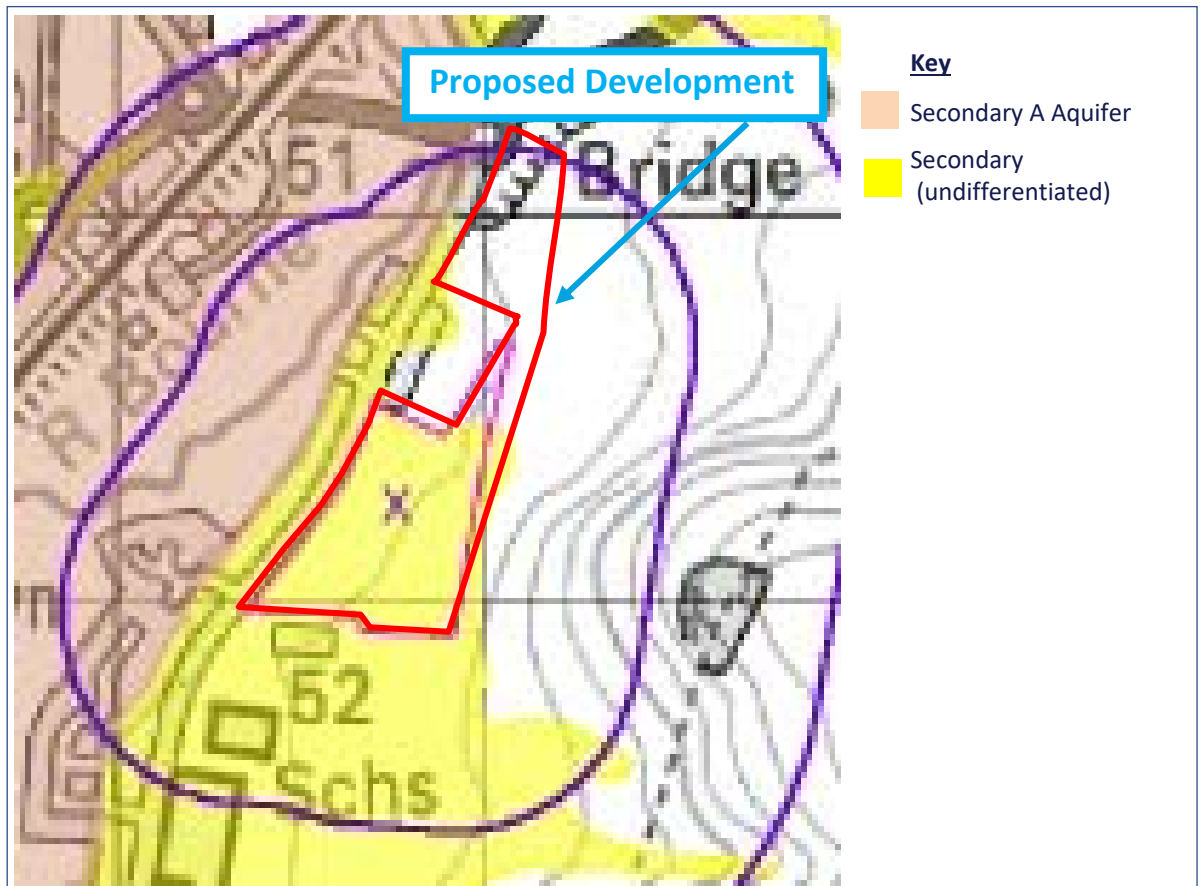


Figure 6-2: BGS Superficial Designation

6.3 The EA provides the following definitions for Aquifers:

“Principal Aquifer – These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

Secondary Aquifers - “These include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage. Secondary aquifers are subdivided into two types:

Secondary A - permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.”

Secondary B - predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

Secondary Undifferentiated - has been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.”

Groundwater Vulnerability

- 6.4 The EA has recently updated their Groundwater Vulnerability Zones (GVZ) Map, this now includes 5 risk categories (High, Medium – High, Medium, Medium – Low and Low). The Map summarises the overall risk to groundwater, taking into account groundwater vulnerability, the types of aquifer present (superficial and/or bedrock) and their designation status.
- 6.5 **Figure 7-3** is an extract of their simplified GVZ map, in which the indicative risk for the Site is shown to be ‘High’ Vulnerability across the Site, with the north on the Principal Aquifer (chalk bedrock), and the remainder of the site on the Secondary Aquifer (from the superficial deposits).

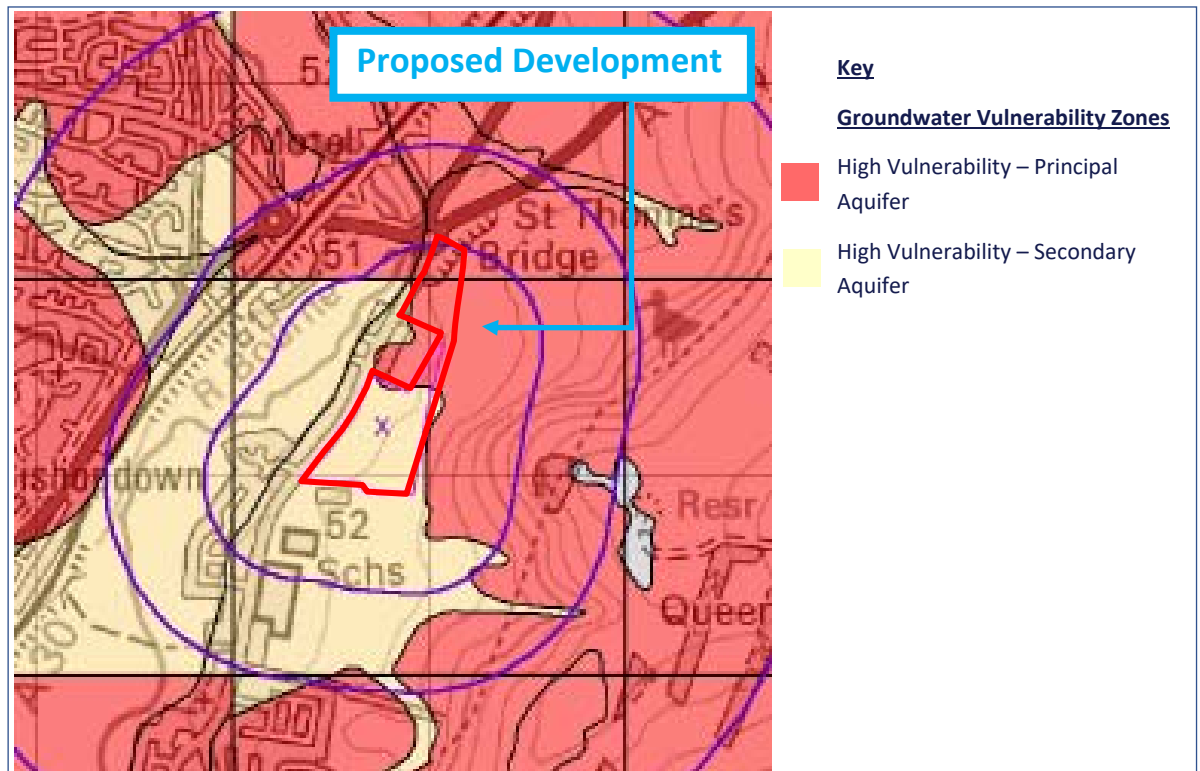


Figure 6-3: The EA's Simplified Groundwater Vulnerability Zones Map

- 6.6 The EA provides the following definition for the GVZs:

***High** – These are high priority groundwater resources that have very limited natural protection. This results in a high overall pollution risk to groundwater from surface activities. Operations or activities in these areas are likely to require additional measures over and above good practice pollution prevention requirements to ensure that groundwater isn't impacted.*

***Medium-high** – These are high priority groundwater resources that have limited natural protection. This results in a medium-high overall pollution risk to groundwater from surface activities. Activities in these areas may require additional measures over and above good practice to ensure they do not cause groundwater pollution.*

***Medium** – these are medium priority groundwater resources that have some natural protection resulting in a moderate overall groundwater risk. Activities in these areas should as a minimum follow good practice to ensure they do not cause groundwater pollution.*

***Medium-low** - these are lower priority groundwater resources that have some natural protection resulting in a moderate to low overall groundwater pollution risk. Activities in these areas should follow good practice to ensure they do not cause groundwater pollution.*

Low – these are low priority groundwater resources that have a high degree of natural protection. This reduces their overall risk of pollution from surface activities. However, activities in these areas may be a risk to surface water due to increased run-off from lower permeability soils and near-surface deposits. Activities in these areas should be adequately managed to ensure they do not cause either surface or groundwater pollution.”

Groundwater Abstractions

6.7 There are fourteen **Groundwater Abstraction** permits recorded within 2,000m of the Site boundary, these are outlined below in **Table 6-1**:

Operator - Location	Abstraction	Permit Start Date	Permit End Date	Distance (m)	Direction
Mr R T Cook – New Farm, Laverstock Borehole 1	General Farming and Domestic	July 1966	Not Supplied	66	North West
Mr N P L Oates – Church Road, Laverstock Borehole 1	General Farming and Domestic	May 2000	Not Supplied	96	South West
P R & J M Mcenhill – Burrough’s Hill Borehole 1	General Farming and Domestic	January 1978	Not Supplied	1165	South
Fieldfare Farms Ltd – Ford Down Borehole 1	General Agriculture: Spray Irrigation – Direct	May 1985	Not Supplied	1338	North East
Fieldfare Farms Ltd – Ford Down Borehole 1	General Farming and Domestic	May 1985	Not Supplied	1343	North East
Dolphin Farms Ltd – Manor Farm, Laverstock Well 1	General Farming and Domestic	June 1987	Not Supplied	1582	North West
Wessex Water Services Ltd – Clarendon Park Borehole 3	Public Water Supply: Potable Water Supply – Direct	April 2018	Not Supplied	1596	South East
Wessex Water Services Ltd – Clarendon Park Borehole C	Public Water Supply: Potable Water Supply – Direct	November 1989	Not Supplied	1631	South East

Wessex Water Services Ltd – Clarendon Park Borehole D	Public Water Supply: Potable Water Supply – Direct	November 1989	Not Supplied	1631	South East
Wessex Water Services Ltd – Clarendon Park Borehole 1	Public Water Supply: Potable Water Supply – Direct	April 2018	Not Supplied	1650	South East
Wessex Water Services Ltd – Wyndham Road/Deans Farm Wells with Boreholes	Public Water Supply: Potable Water Supply – Direct	April 2006	Not Supplied	1761	South West
Wessex Water Services Ltd – Wyndham Road/Deans Farm Wells with Boreholes	Public Water Supply: Potable Water Supply – Direct	April 2006	Not Supplied	1763	South West
Mrs A E Clarke – Petersfinger Farm Borehole Point 1	General Farming and Domestic	September 1967	Not Supplied	1763	South
Mr A T Morris – Pinecrest Borehole 1	General Farming and Domestic	June 1987	Not Supplied	1862	North East

Table 6-1: Groundwater Abstractions

Source Protection Zones

6.8 The Site is not situated within a **Source Protection Zones** within 1000m of the site boundary.

7 Potentially Contaminative Land Use and Statutory Registers

7.1 Five **Local Authority Pollution Prevention and Controls** have been identified within 1000m of the Site Boundary. These are provided in further detail below in **Table 7-1**.

Name - Location	Dated	Description	Distance (m)	Direction
C B Skips – London Road, Salisbury	Not Supplied	Blending, Packing, Loading and Use of Bulk Cement	297	North West
C Bialek Ltd – St Thomas Farm, London Road	Not Supplied	Blending, Packing, Loading and Use of Bulk Cement	344	North West
Save Service Station – London Road, Salisbury	06/08/1998	Petrol Filling Station	435	North West
Bp Four Acres Filling Station – London Road, Salisbury	04/11/1998	Petrol Filling Station	534	North West
Salisbury Crematorium – Barrington Road, Salisbury	10/02/1992	Crematoria	921	West

Table 7-1: Local Authority Pollution Prevention and Controls

7.2 One **Substantiated Pollution Incident Register** has recorded within 1,000m of the Site boundary, this is further detailed in **Table 7-2**:

Pollutant	Incident Date	Water Impact	Air Impact	Land Impact	Distance (m)	Direction
Oils – Diesel (including Agriculture)	23rd January 2008	Category 4 – No Impact	Category 4 – No Impact	Category 2 – Significant Incident	571	North West

Table 7-2: Substantiated Pollution Incident Register

7.3 None of the following have been recorded within 1,000m of the Site boundary:

- Contaminated Land Register Entries and Notices
- Enforcement and Prohibition Notices
- Integrated Pollution Controls
- Integrated Pollution Prevention and Control
- Local Authority Integrated Pollution Prevention And Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters

- Prosecutions Relating to Authorised Processes
- Prosecutions Relating to Controlled Waters
- Registered Radioactive Substance
- Water Industry Act Referrals

Hazardous Substances

7.4 There are no records of the following on or within a 1,000m radius of the Site boundary:

- Control of Major Accident Hazards Sites (COMAH)
- Explosive Sites
- Notification of Installations Handling Hazardous Substances (NIHHS)
- Planning Hazardous Substance Consents
- Planning Hazardous Substance Enforcements

7.5 There are twenty-two **Contemporary Trade Directory Entries** recorded within 1,000m of the Site boundary. No Trade Directories are identified on-site. Seven Trade Directory Entries are identified within 500m from the Site boundary. These are further detailed in **Table 7-3** below:

Name – Location	Classification	Status	Distance (m)	Direction
Enovation Controls – 50 Church Road, Laverstock	Control Panels	Inactive	22	South West
Rkw Associates – 22 Bishops Mead, Laverstock	Electrical Engineers	Inactive	134	West
Ridgeway – London Road, Salisbury	Car Customisation & Conversion Specialists	Inactive	417	North West
Wood in Salisbury (Bmw) – London Road, Salisbury	Car Dealers	Inactive	417	North West
Save – London Road, Salisbury	Petrol Filling Stations	Inactive	435	North West
Marshall B M W Salisbury – London Road, Salisbury	Car Dealers	Inactive	445	North West
Rex Car Sales – London Road, Salisbury	Car Dealers	Active	446	North West

Table 7-3: Contemporary Trade Directory Entries located between 0 and 500m

- 7.6** A further fifteen Trade Directory Entries are located between 501m from the Site boundary, and these are listed in **Table 7-4**:

Active	Inactive
Petrol Filling Stations	Car Body Repairs
Cleaning Services – Domestic	Petrol Filling Stations
Sand, Gravel & Other Aggregates	Cleaning Services – Domestic
Cemeteries & Crematoria	Commercial Cleaning Services
Garage Services	Cleaning Services – Domestic (x4)
-	Boatbuilders & Repairers
-	Ironing & Home Laundry Services

Table 7-4: Contemporary Trade Directory Entries between 501 and 1,000m

- 7.7** There are two **Fuel Station Entries**, details of which is shown below in **Table 7-5**.

Name	Location	Premise Type	Status	Distance (m)	Direction
Four Acres Sf Connect	London Road, Bishopdown	Petrol Station	Open	538	North West
Save Salisbury	London Road, Bishopdown	Not Applicable	Obsolete	543	West

Table 7-5: Fuel Station Entries

Waste

- 7.8** The Site is situated within the **Local Authority Landfill Coverage Areas** of;
- Wiltshire County Council (has supplied landfill data)
 - Salisbury District Council (landfill data supplied by another authority)
- 7.9** There are two **Licensed Waste Management Facilities (Location)** within 1,000m of the Site boundary. This is further detailed below in **Table 7-6**:

Operator Name - Location	Site Category	Licence Status	Last Modified	Distance (m)	Direction
C Bialek Ltd – St Thomas' Farm, London Road, Laverstock	Household, Commercial and Industrial Transfer Stations	Modified	23/04/2009	343	North West
Boswell Brothers (Salisbury) Ltd – Land/Premises at Ford Lane, Ford, Salisbury	Household, Commercial and Industrial Transfer Stations	Modified	24/06/2014	986	North

Table 7-6: Licenced Waste Management Facility (Location)

- 7.10** There is one recorded Local Authority Recorded Landfill Sites within 1,00m of the Site boundary and this is further detailed in **Table 7-6**:

Location	Type of Waste	Last Reported Status	Date of Closure	Distance (m)	Direction
Land Adjoining River Bourne, Laverstock	Soil and Subsoil	Closed	31/12/1978	485	South West

Table 7-7: Local Authority Recorded Landfill Sites

- 7.11** There is one recorded **Potentially Infilled Land (Water)** within 1,000m of the Site boundary and further detailed in the following **Table 7-8**.

Use	Date of Mapping	Distance (m) Type	Direction
Unknown Filled Ground (Pond, marsh, river, stream, dock, etc.)	1939	63	North West

Table 7-8: Potentially Infilled Land (Water)

- 7.12** There are three **Registered Waste Transfer Sites** within 1,000m of the Site Boundary, and these are further detailed below in **Table 7-9**.

Name	Location	Premise Type	Status	Distance (m)	Direction
P Bialek Ltd – St Thomas' Farm, Salisbury	No known restriction on source of waste	Operational	25/06/1997	299	North West
Boswell Bros (Salisbury) Ltd – Ford, Salisbury	No known restriction on source of waste	Superseded	01/08/1994	945	North
Boswell Bros (Salisbury) Ltd – Ford, Salisbury	No known restriction on source of waste	Operational	01/06/1997	953	North

Table 7-9: Registered Water Transfer Sites

- 7.13** There are no provided reports of the following within 1,000m of the Site boundary:

- BGS Recorded Landfill Sites
- Historical Landfill Sites
- Integrated Pollution Control Registered Waste Sites
- Licensed Waste Management Facilities (Landfill Boundaries)
- Potentially Infilled Land (Non-Water)
- Registered Landfill Sites
- Registered Waste Treatment or Disposal Sites

Unexploded Ordnance (UXO)

- 7.14** The *Zetica Regional Unexploded Bomb Risk Map* for the Site has outlined the proposed development is potentially located within a Low Bomb Risk area affected by UXO activity, as further illustrated in **Figure 7-1**.



Figure 7-1: Zetica Regional Unexploded Bomb Risk Assessment Map for the Site

- 7.15** A 'Pre-Desk Study Assessment' (PDSA) Bomb Search was carried out by Zetica UXO Site, in which the risk of encountered items of UXO during intrusive works on Site was assessed.
- 7.16** The following potential sources of explosive ordnance are detailed in **Table 7-10**.

Threat Source	Details
Pre-WWI Military Activity on or Affecting the Site	None identified Since the early 19th century, an 800-yard rifle range was located on Laverstock Down, approximately 0.3km southeast of the Site. The firing direction was from south to north, away from the Site.
WWI Military Activity on or Affecting the Site	None identified During WWI, Laverstock Down Rifle Range continued to be used.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: - Transport infrastructure and public utilities. - Military Training Areas - Royal Flying Corps (RFC) Old Sarum.
WWI Bombing	None identified on the Site
Interwar Military Activity on or Affecting the Site	None identified on the Site. During the Interwar Period, Laverstock Down Rifle Range continued to be used.
WWII Military Activity on or Affecting the Site	None Identified on the Site. During WWII, Laverstock Down Rifle Range continued to be used.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: - Transport infrastructure and public utilities. - Industries important to the war effort, including aircraft components. - Royal Air Force (RAF) Old Sarum - Military camps and training areas. - Anti-Aircraft (AA) and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	1No. located approximately 3.4km east of the Site.
WWII Bombing	During WWII the Site was located in the Rural District (RD) of Salisbury and Wilton, which officially recorded 446No. High Explosive (HE) bombs with a bombing density of 4.1 bombs per 405 hectares (ha). No readily available records have been found to indicate that the Site was bombed.
Post-WWII Military Activity on or Affecting the Site	None identified on Site. Laverstock Down Rifle Range continued to be used until the 1950's.

Table 7-10: Zetica UXO Pre-Desk Study Assessment

7.17 Given this, Zetica PDSA has recommended that a detailed desk study is commissioned to assess, and potentially zone, the Unexploded Ordnance (UXO) hazard level on the Site.

8 Environmental Setting

- 8.1** There are two **Sites of Special Scientific Interest** within 1000m of the Site. The first is Cockey Down, located approximately 53m east of the Site. IT has been designated a Site of Special Scientific Interest since 15th April 1987. The second is River Avon System, situated approximately 105m north-west of the Site and has been designated since 1st December 1996.
- 8.2** The **Special Area of Conservation** of the River Avon is shown approximately 105m north west of the Site and comprised of an approximate area of 468ha.
- 8.3** The Site lies within a Groundwater **Nitrate Vulnerable Zone**.
- 8.4** The Sensitive Land Uses are shown in **Figure 8-1**.

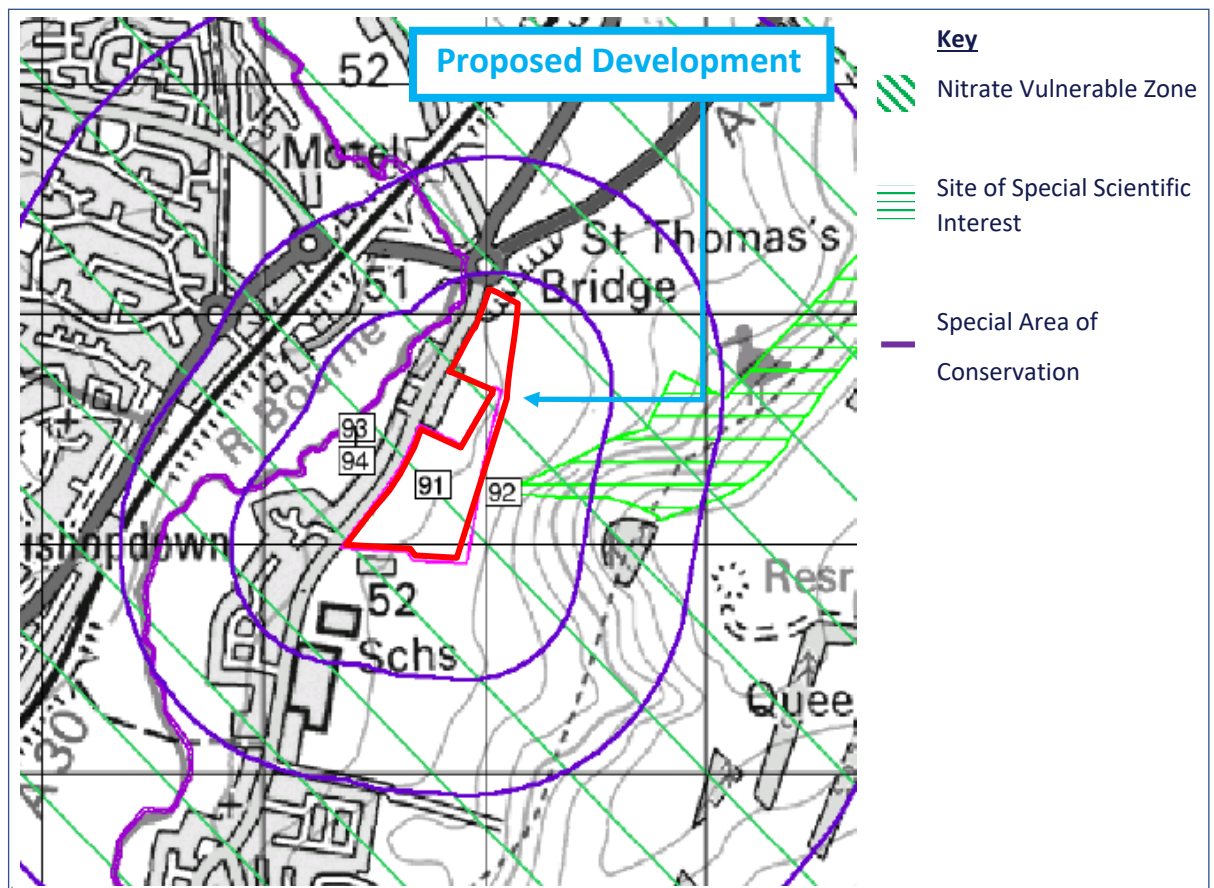


Figure 8-1: Sensitive Land Uses

8.5 None of the following are reported within 1,000m of the Site boundary:

- Ancient Woodland
- Areas of Adopted Green Belt
- Areas of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Areas
- Forest Parks
- Local Nature Reserves
- Marine Nature Reserves
- National Nature Reserves
- National Parks
- Nitrate Sensitive Areas
- Ramsar Sites
- Special Protection Areas
- World Heritage Sites

9 Site Conceptual Model

- 9.1** Guidance has been published by the Department of the Environment, Transport and the Regions (DETR Circular 02/2000) 'Environmental Protection Act 1990: Part 11A – Contaminated Land (20th March 2000) which promotes the 'suitable for use approach'. This has since been replaced by the DEFRA: Contaminated Land Statutory Guidance (April 2012). The DEFRA note 'The "suitable for use" approach focuses on the risks caused by land contamination. The approach recognises that the risks presented by any given level of contamination will vary greatly according to the use of the land and a wide range of other factors, such as the underlying geology of the site. Risks therefore need to be assessed on a site-by-site basis.
- 9.2** The "suitable for use" approach consists of three elements:
- Ensuring that land is suitable for its current use - in other words, identifying land where contamination is causing unacceptable risks to human health and the environment, assessed on the basis of the current use and circumstances of the land, and returning such land to a condition where such risks no longer arise ("remediating" the land): the new contaminated land regime provides general machinery to achieve same.
 - Ensuring that land is made suitable for any new use, as planning permission is given for that new use - in other words, assessing the potential risks from contamination, on the basis of the proposed future use and circumstances, before official permission is given) for the development and, where necessary to avoid unacceptable risk to human health and the environment, remediating the land before the new use commences; this is the role of the town and country planning and building control regimes.
 - Limiting requirements for remediation to the work necessary to prevent unacceptable risks to human health or the environment in relation to the current use or future use of the land for which planning permission is being sought - in other words, recognising that the risks from contaminated land can be satisfactorily assessed only in the context of specific uses of the land (whether current or proposed), and that any attempt to guess what might be needed at some time in the future for other uses is likely to result either in premature work (thereby risking distorting social, economic and environmental priorities) or in unnecessary work (thereby wasting resources).
- 9.3** Also addressed within the DEFRA guidance is the issue of 'contaminated land'. 'Before the **Local Authority** can make the judgement that any land appears to be **Contaminated Land** on the basis that **Significant Harm** is being caused, or that there is a **Significant Possibility** of such harm being caused, the authority must therefore identify a **Significant Pollutant Linkage**.
- 9.4** This means that each of the following has been identified:
- A Contaminant Source
 - A Pathway
 - A Receptor
- and that:
- The Contaminant is causing Significant Harm to that Receptor.
- or
- There is a Significant Possibility of such harm being caused by the Contaminant to the Receptor.
- 9.5** Where any of the three elements of the Source-Pathway-Receptor (SPR) are not present, there is no risk and therefore land cannot be classified as statutory 'contaminated land'.

9.6 In terms of controlled waters, DEFRA: Contaminated Land Statutory Guidance (April 2012) notes the following:

A.35 *Section 78A (9) defines the pollution of controlled waters as: 'The entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter'.*

A.36 *Before determining that pollution of controlled waters is being, or is likely to be, caused, the local authority should be satisfied that a substance is continuing to enter controlled waters or is likely to enter controlled waters. For this purpose, the local authority should regard something as being "likely" when they judge it more likely than not to occur.*

A.37 *Land should not be designated as contaminated land where:*

- a) A substance is already present in controlled waters;
- b) Entry into controlled waters of that substance from land has ceased; and
- c) It is not likely that further entry will take place.

A.38 *Substances should be regarded as having entered controlled waters where:*

- a) They are dissolved or suspended in those waters; or
- b) If they are immiscible with water they have direct contact with those waters on or beneath the surface of the water.

A.39 *The term "continuing to enter" should be taken to mean any entry additional to any which has already occurred."*

9.7 In 2004 the Environment Agency published the 'Model Procedures for the Management of Land Contamination', CLR11, which provides the technical framework for applying a risk management process, based on the 'suitable for use' approach, when dealing with land affected by contamination.

9.8 In 2008, to enable the practical application of good practice of the EA's Model Procedures CLR11, R&D Publication 66 'Guidance for the Safe Development of Housing on Land Affected by Contamination' was published by the National House Builders Council (NHBC), the EA and the Chartered Institute of Environmental Health. Whilst written to be relevant to housing development it is also applicable to other forms of development where sites are land affected by contamination. The guidance describes in detail the process and activities involved for the identification and assessment of hazards for a Phase 1 assessment.

9.9 At Phase 1 stage, it is necessary to develop an initial conceptual site model to understand the possible relationships between contaminants, pathways and receptors. If a hazardous source, via an exposure pathway to a potential receptor can be established then there is a 'pollutant linkage', which is preliminarily risk assessed using parameters summarised in Table 10a, below. At this stage, the conceptual model is prepared without site specific soils, groundwater or gas testing and as such, the findings should be treated only as first and general indications of possible SPR linkages.

9.10 The primary potential sources of contamination on Site are indicated below:

Agricultural Use - *Soil and Water Contamination*

9.11 The primary potential sources of contamination off Site are indicated below:

Agricultural Use - *Soil and Water Contamination*

Existing Roads - *Soil and Water Contamination*

Works - *Soil and Water Contamination*

Former Factory/Tank - *Soil and Water Contamination*

Railway Line - *Soil and Water Contamination*

9.12 The potential receptors at the site are:

- End users / site occupiers
- Adjacent users / occupiers
- Controlled waters
- Flora and fauna
- Buildings & construction materials

9.13 The potential pathways at the site are primarily:

- Direct ingestion of soil / water / fruit or vegetable
- Inhalation of dust / vapours
- Direct skin contact with the ground / water
- Regression of plant growth due to phytotoxic contamination
- Vertical and lateral migration of contamination

9.14 While limited information is available at this stage methodology has been developed to help identify the potential contamination risk and linkages. The severity of damaging effects and the likelihood of any linkage have been considered.

9.15 Given the potential consequence and likelihood, a risk rating is given, based on the following matrix:

		Consequence			
Probability (Likelihood)		Severe	Moderate	Mild	Minor
	Highly Likely	Very High	High	Medium	Low
	Likely	High	Medium	Medium/Low	Low
	Possible	Medium	Medium/Low	Low	Very Low
	Unlikely	Medium/Low	Low	Very Low	Very Low

Table 9-1: Risk Ratings

9.16 The risk ratings are described as follows:

- Very High:** There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remediation action.
- High:** Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remediation action.
- Medium:** It is possible that without appropriate remediation action harm could arise to a designated receptor. It is relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely that such harm would be relatively mild.
- Low:** It is possible that harm could arise to a designated receptor from an identified hazard. It is likely that, at worst if any harm was realised any effects would be mild.
- Very Low:** The presence of an identified hazard does not give rise to the potential to cause harm to a designated receptor.

9.17 Table 9-2. provides a summary of the potential SPR linkages on site and within close proximity of the site.

Source	Pathway	Receptor	Risk Rating	Potential Mitigation
<u>Contaminated soils</u> On-site: • Agricultural Off-site: • Agricultural • Existing Roads • Works • Former Factory/Tank • Railway Line	Direct Ingestion & contact ⁽¹⁾	Site workers & occupiers	Low	-
	Inhalation of dust ⁽²⁾		Low	-
	Direct skin contact ⁽³⁾		Low	-
	Vertical & lateral migration ⁽⁴⁾	Controlled waters	Low	-
	Direct uptake ⁽⁵⁾	Flora	Low	-
	Direct contact ⁽⁶⁾	Building materials	Low	-
<u>Contaminated groundwater</u> On-site: • Agricultural Off-site: • Agricultural • Existing Roads • Works • Former Factory/Tank • Railway Line	Direct Ingestion & contact ⁽⁷⁾	Site workers & occupiers	Low	-
	Direct skin contact ⁽⁸⁾		Low	-
	Vertical & lateral migration ⁽⁹⁾	Controlled waters	Low	-
	Direct uptake ⁽¹⁰⁾	Flora	Low	-
	Direct contact ⁽¹¹⁾	Building materials	Low	-
<u>Elevated gas</u> On-site: None Off-site: None	Vertical & Lateral Mitigation ⁽¹²⁾	Site workers & occupiers	Low	-
		Adjacent occupiers	Low	-

Table 9-2: Site SPR Summary

- 9.18 The following paragraphs outline the comments from the pathways identified in **Table 10-2** above.
- 9.19 **(1) Direct Ingestion & Contact** - Historically undeveloped Site and is currently in agricultural use. Potential contamination threats within the Site Agricultural uses may have included the use of pesticides and fertilizers which may pose minor potential contamination. An assessment of the soils may be required at the detailed design stage.
- 9.20 **(2) Inhalation of Dust** - Historically undeveloped Site and is currently in agricultural use. Potential contamination threats within the Site Agricultural uses may have included the use of pesticides and fertilizers which may pose minor potential contamination. An assessment of the soils may be required at the detailed design stage.
- 9.21 **(3) Direct Skin Contact** - Historically undeveloped Site and is currently in agricultural use. Potential contamination threats within the Site Agricultural uses may have included the use of pesticides and fertilizers which may pose minor potential contamination. An assessment of the soils may be required at the detailed design stage.
- 9.22 **(4) Vertical and Lateral Migration** - The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site.
- 9.23 **(5) Direct Uptake** - Historically undeveloped Site and is currently in agricultural use.
- 9.24 **(6) Direct Contact** - Historically undeveloped Site and is currently in agricultural use. Agricultural land uses are not considered to have a detrimental impact on building materials.
- 9.25 **(7) Direct Ingestion & Contact** - The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. Groundwater flow into site is possible however none of the surrounding off-site sources have the potential to detrimentally impact the proposed site.
- 9.26 **(8) Direct Skin Contact** - The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. Groundwater flow into site is possible however none of the surrounding off-site sources have the potential to detrimentally impact the proposed site.
- 9.27 **(9) Vertical & Lateral Migration** - The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. Groundwater flow into site is possible however none of the surrounding off-site sources have the potential to detrimentally impact the proposed site..
- 9.28 **(10) Direct Uptake** - The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. Groundwater flow into site is possible however none of the surrounding off-site sources have the potential to detrimentally impact the proposed site.
- 9.29 **(11) Direct Contact** The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. Groundwater flow into site is possible however none of the surrounding off-site sources have the potential to detrimentally impact the proposed site..
- 9.30 **(12) Vertical and Lateral Migration: Site Workers & Occupiers** - Historically undeveloped Site and is currently in agricultural use. The bedrock geology for the Site is situated on a Principal Aquifer, with the Superficial Deposits situated on a Secondary (Undifferentiated) Aquifer. The Site shows High groundwater vulnerability across the Site. No potential sources for gassing have been identified within an influencing distance of the proposed development

10 Discussion and Summary

Discussion

- 10.1** A review of readily available Site environmental data, including historical mapping and statutory registers and consultation with appropriate authorities has identified the following:

On-Site and Offsite

- 10.2** The Site comprises **Agricultural Land** which may include the following typical contaminants: Nitrogen, potassium and phosphorous contained within fertilisers; chemicals from pesticides and herbicides; coliform and non-coliform bacteria from livestock waste and manure application; and hydrocarbons from oil and fuel leakages from machinery. Taking into consideration the existing underlying geology and groundwater vulnerability, this feature generally provides a low rating for risk. However, this may vary depending on persistence of the chemicals used and further assessment of the Site's soils may be required at the detailed design stage to establish baseline ground conditions.

Off-Site

- 10.3** A **Former Railway Line** are shown approximately 975m of the proposed development. Potential contaminants may include degreasing solvents, PCBs from engines and electrical equipment, heavy metals, oils, fuels, waste ash and clinker. Since mapping in 2000, the railway line is now shown to be dismantled. The contaminative risk is considered to be a Low due to the distance from the Site and the underlying ground conditions.
- 10.4** Potential contaminants from leakages and spillages from vehicles on **Church Road** and **London Road** may include: heavy metals, oils, fuels and Polycyclic Aromatic Hydrocarbons. Further assessment of the site's soils will be required at the detailed design stage to establish baseline conditions. The risk rating is considered to be Low as the site being separated by highway ditches which would intercept any potential contaminated runoff.
- 10.5** A **Works** has been identified approximately 10m south of the Site. Potential contaminants may include: diesel fuels, solvents, oils, coal tars, phenols, sulphates, cyanides, ammoniacal liquor, heavy metals, hydrocarbons including TPH and PAH's and plastics, oils and lubricants. Further assessment of the site's soils will be required at the detailed design stage to establish baseline conditions. It should be considered that the these land uses should be considered to be a Low risk due to the underlying ground conditions.
- 10.6** A **Former Works/Tanks** has been identified approximately 200m south of the Site. Potential contaminants may include: diesel fuels, solvents, oils, coal tars, phenols, sulphates, cyanides, ammoniacal liquor, heavy metals, hydrocarbons including TPH and PAH's and plastics, oils and lubricants. Further assessment of the site's soils will be required at the detailed design stage to establish baseline conditions. It should be considered that the these land uses should be considered to be a Low risk due to the underlying ground conditions and that both are no longer present.
- 10.7** A **Railway Line** are shown approximately 400m west of the proposed development. Potential contaminants may include: degreasing solvents, PCBs from engines and electrical equipment, heavy metals, oils, fuels, waste ash and clinker. The contaminative risk is considered to be a Low due to the distance from the Site and the underlying ground conditions.

Summary

- 10.8** After reviewing the historical mapping, geological data, hydrological data, sensitive land uses, industrial land uses, waste and hazardous substances, there are no uses identified on or within close proximity of the Site that are potentially contaminative and are likely to be prohibitive to the planned development.
- 10.9** The underlying ground conditions are considered to be sensitive, as the Site is situated on a chalk bedrock geology which forms a Principal Aquifer. In terms of groundwater vulnerability, the Site is shown to sit on High Risk. The baseline contaminative risk onsite is considered to therefore be ***low***. In order to confirm the baseline ground conditions, it is recommended that a Phase II ground investigation is carried out across the Site.

11 Limitations

- 11.1** The benefits of this report are provided solely to Hallam Land Management. The conclusions and recommendations contained herein are limited to those given the general availability of background information and the planned usage of the Site. Brookbanks Consulting Ltd do not confer any third-party rights for the information contained in the report.
- 11.2** All distances referred to in this report are measured from the boundary of the planned development Site unless otherwise advised.
- 11.3** Third party information has been used in the preparation of this report, which Brookbanks, by necessity assume is correct at the time of writing.

Appendix A – Historical Site Mapping – Ordnance Survey

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

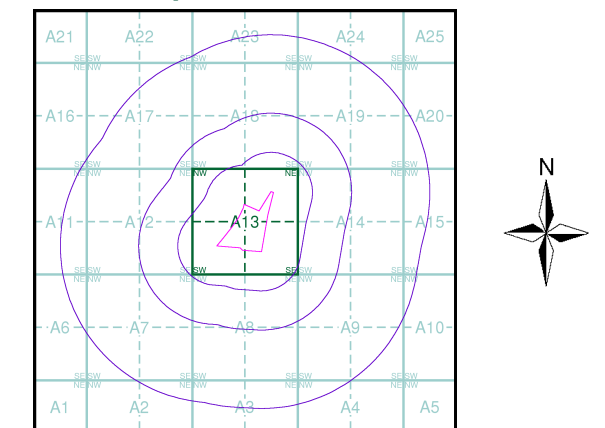
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil,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

Brookbanks Consulting

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hampshire & Isle Of Wight	1:10,560	1875	2
Wiltshire	1:10,560	1883 - 1887	3
Wiltshire	1:10,560	1901 - 1902	4
Wiltshire	1:10,560	1926 - 1927	5
Wiltshire	1:10,560	1926 - 1927	6
Wiltshire	1:10,560	1927	7
Wiltshire	1:10,560	1938 - 1939	8
Ordnance Survey Plan	1:10,000	1962	9
Ordnance Survey Plan	1:10,000	1962	10
Ordnance Survey Plan	1:10,000	1981	11
10K Raster Mapping	1:10,000	2000	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2020	14

Historical Map - Slice A



Order Details

Order Number: 249513477_1_1
Customer Ref: 000109
National Grid Reference: 416380, 131630
Slice: A
Site Area (Ha): 6.26
Search Buffer (m): 1000

Site Details

Laverstock, Salisbury

Landmark
INFORMATION GROUP

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

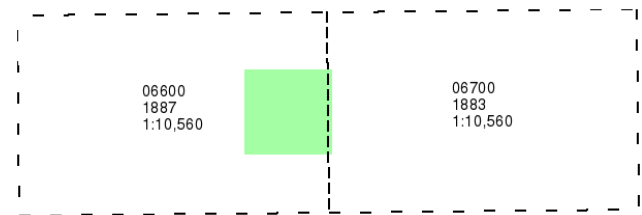
Wiltshire

Published 1883 - 1887

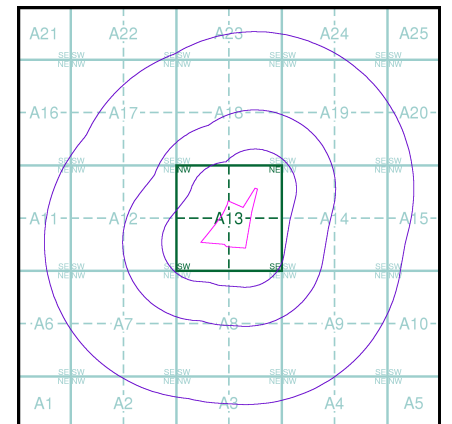
Source map scale - 1:10,560

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

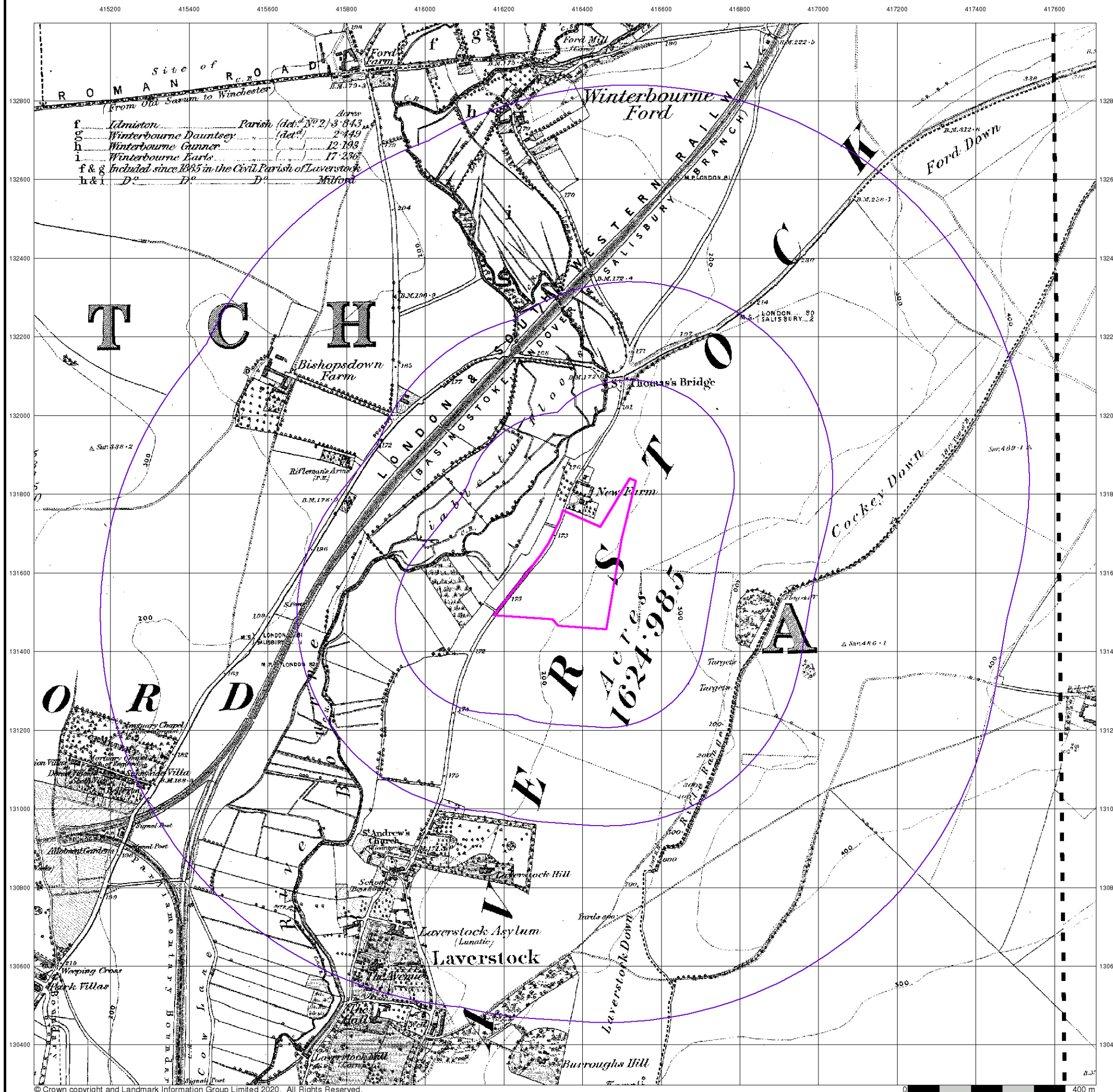


Order Details

Order Number: 249513477_1_1
Customer Ref: 000109
National Grid Reference: 416380, 131630
Slice: A
Site Area (Ha): 6.26
Search Buffer (m): 1000

Site Details

Laverstock, Salisbury



Wiltshire

Published 1926 - 1927

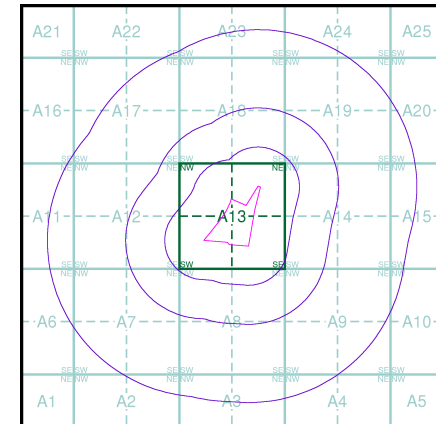
Source map scale - 1:10,560

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Map Name(s) and Date(s)

066NE 1926 1:10,560	067NW 1927 1:10,560
066SE 1926 1:10,560	067SW 1926 1:10,560

Historical Map - Slice A

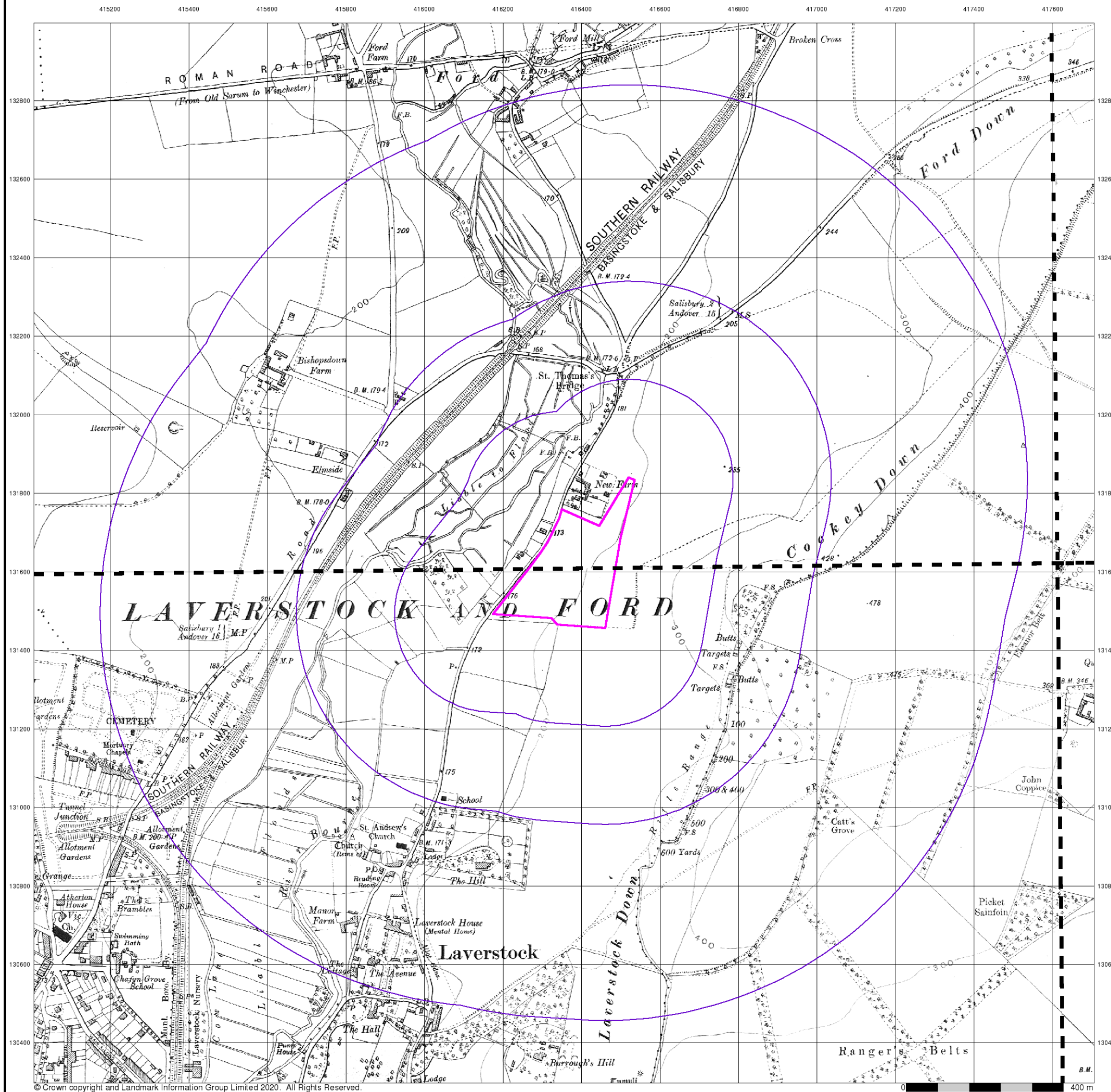


Order Details

Order Number: 249513477_1_1
 Customer Ref: 000109
 National Grid Reference: 416380, 131630
 Slice: A
 Site Area (Ha): 6.26
 Search Buffer (m): 1000

Site Details

Laverstock, Salisbury



Wiltshire

Published 1938 - 1939

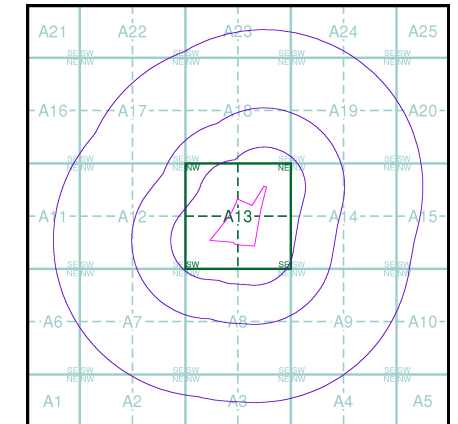
Source map scale - 1:10,560

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)

066NE
1939
1:10,560
066SE
1938
1:10,560

Historical Map - Slice A

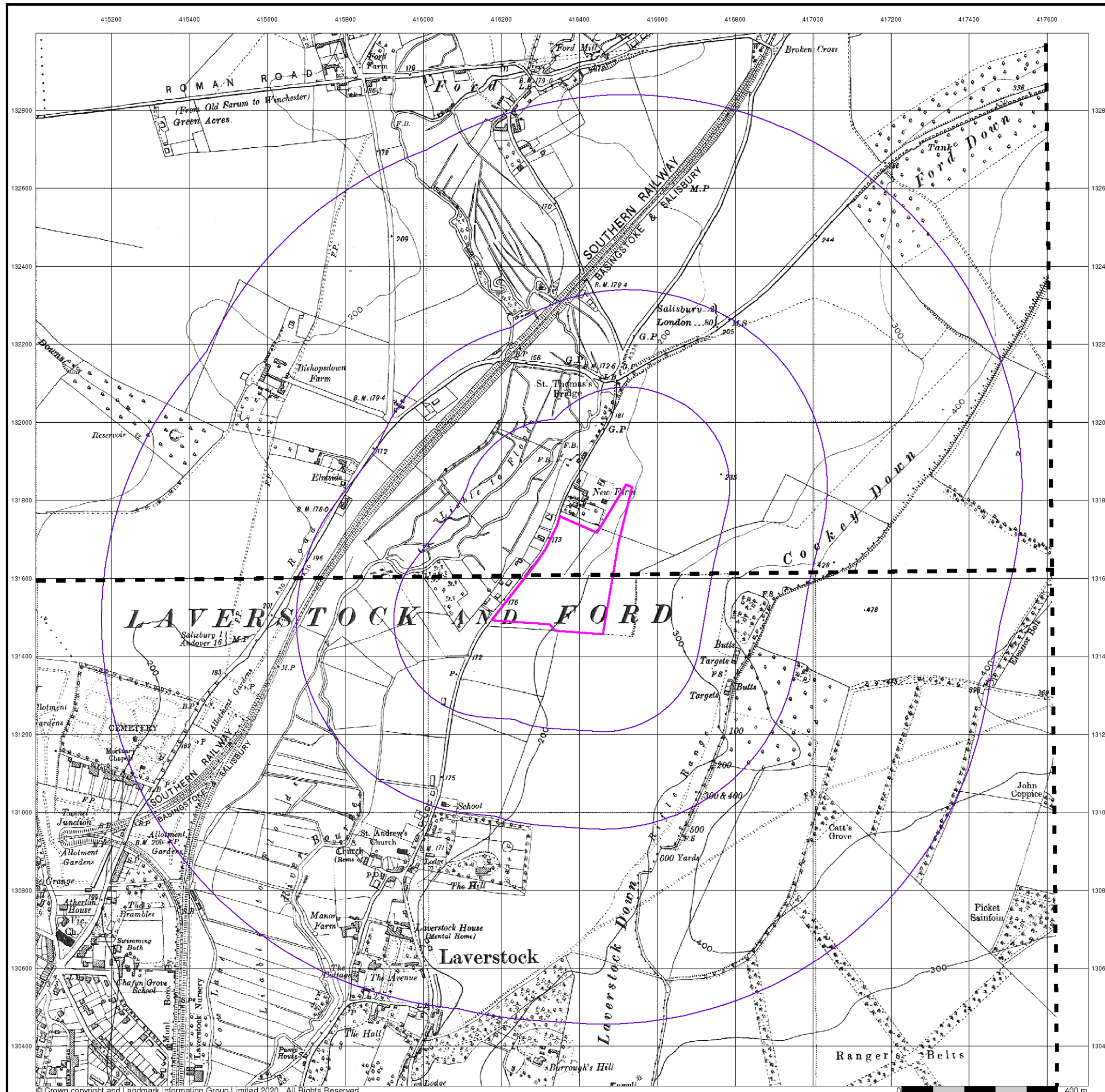


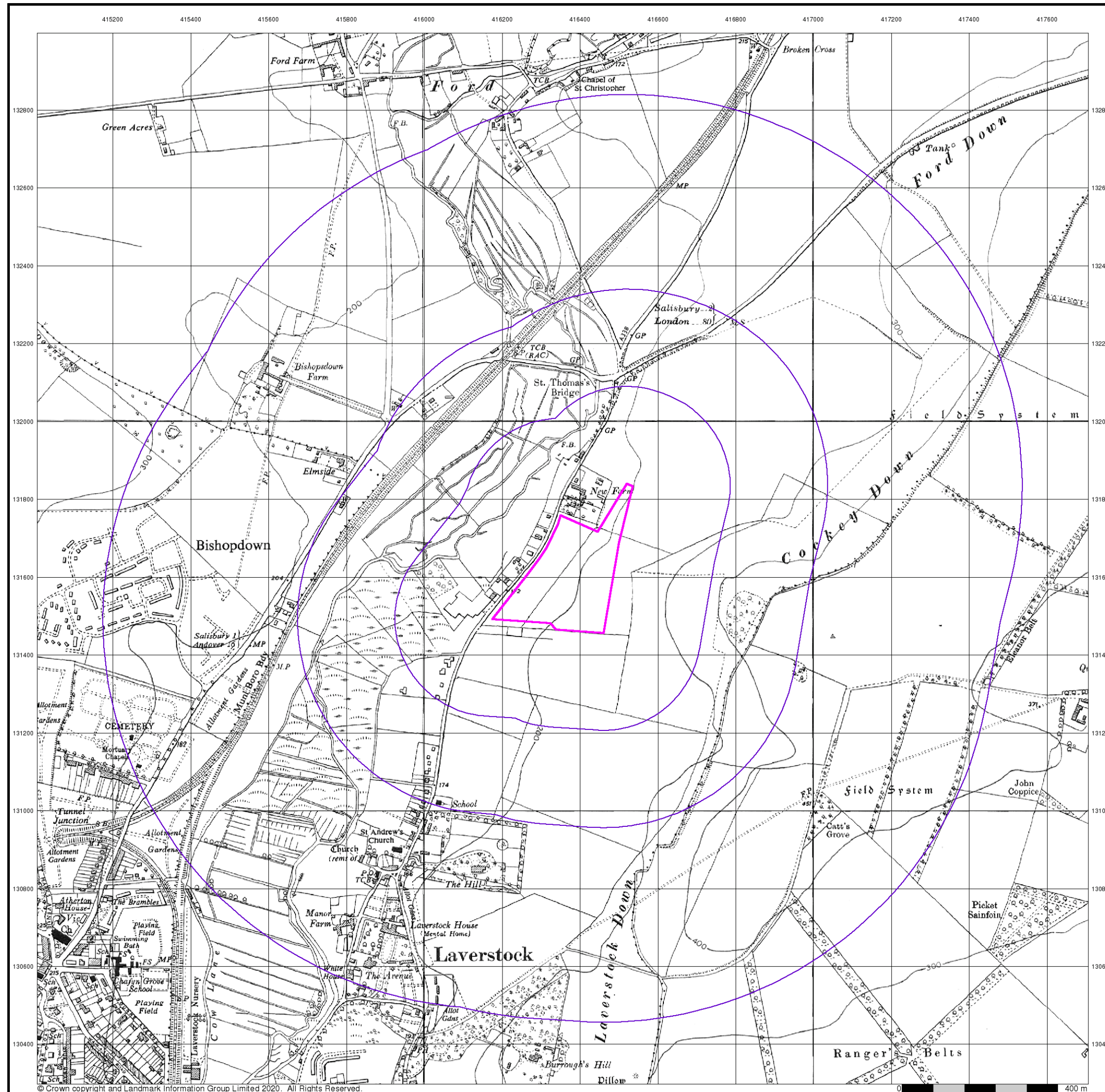
Order Details

Order Number: 249513477_1_1
Customer Ref: 000109
National Grid Reference: 416380, 131630
Slice: A
Site Area (Ha): 6.26
Search Buffer (m): 1000

Site Details

Laverstock, Salisbury





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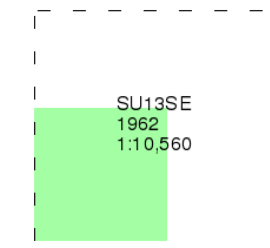
Ordnance Survey Plan

Published 1962

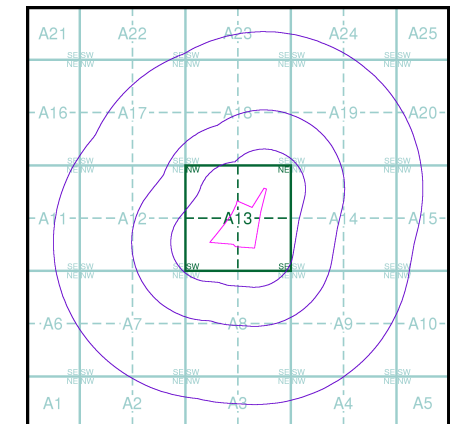
Source map scale - 1:10,000

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

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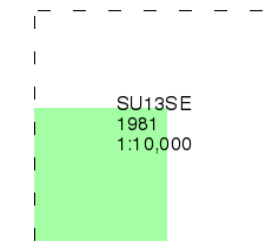
Ordnance Survey Plan

Published 1981

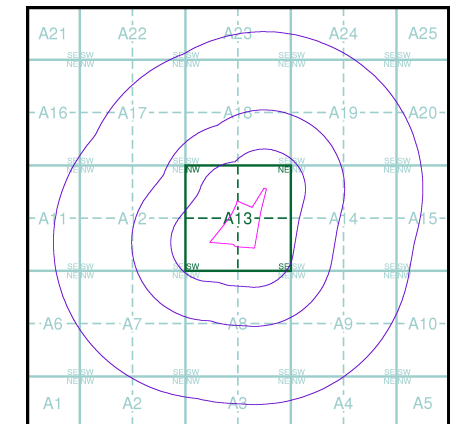
Source map scale - 1:10,000

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

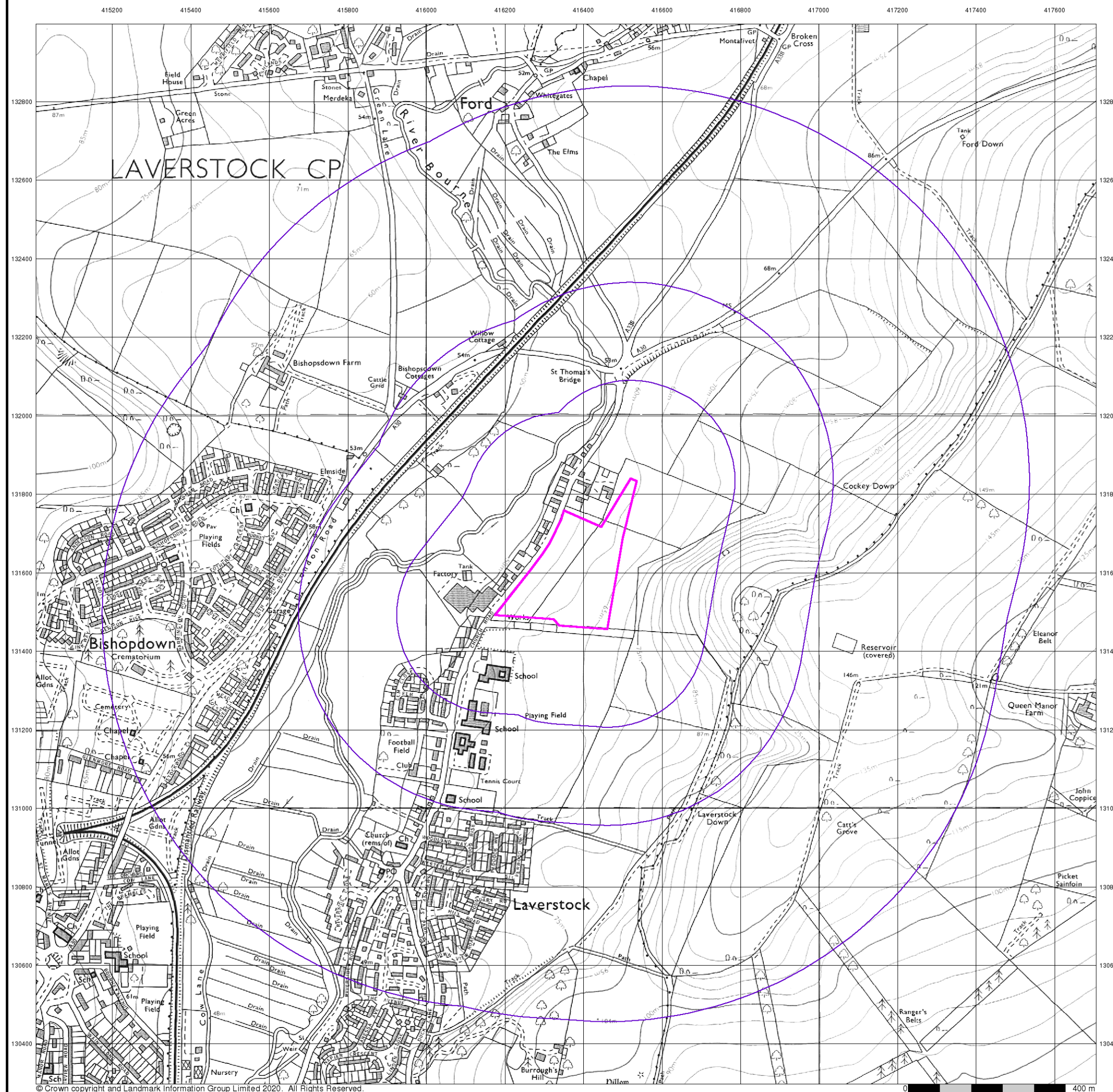


Order Details

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Laverstock, Salisbury



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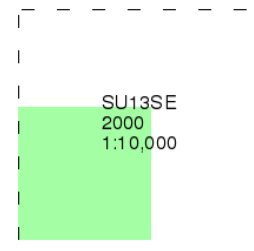
10k Raster Mapping

Published 2000

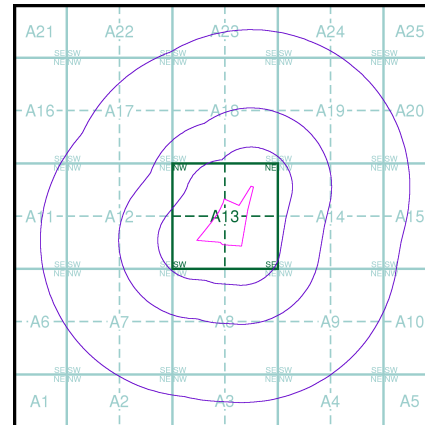
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

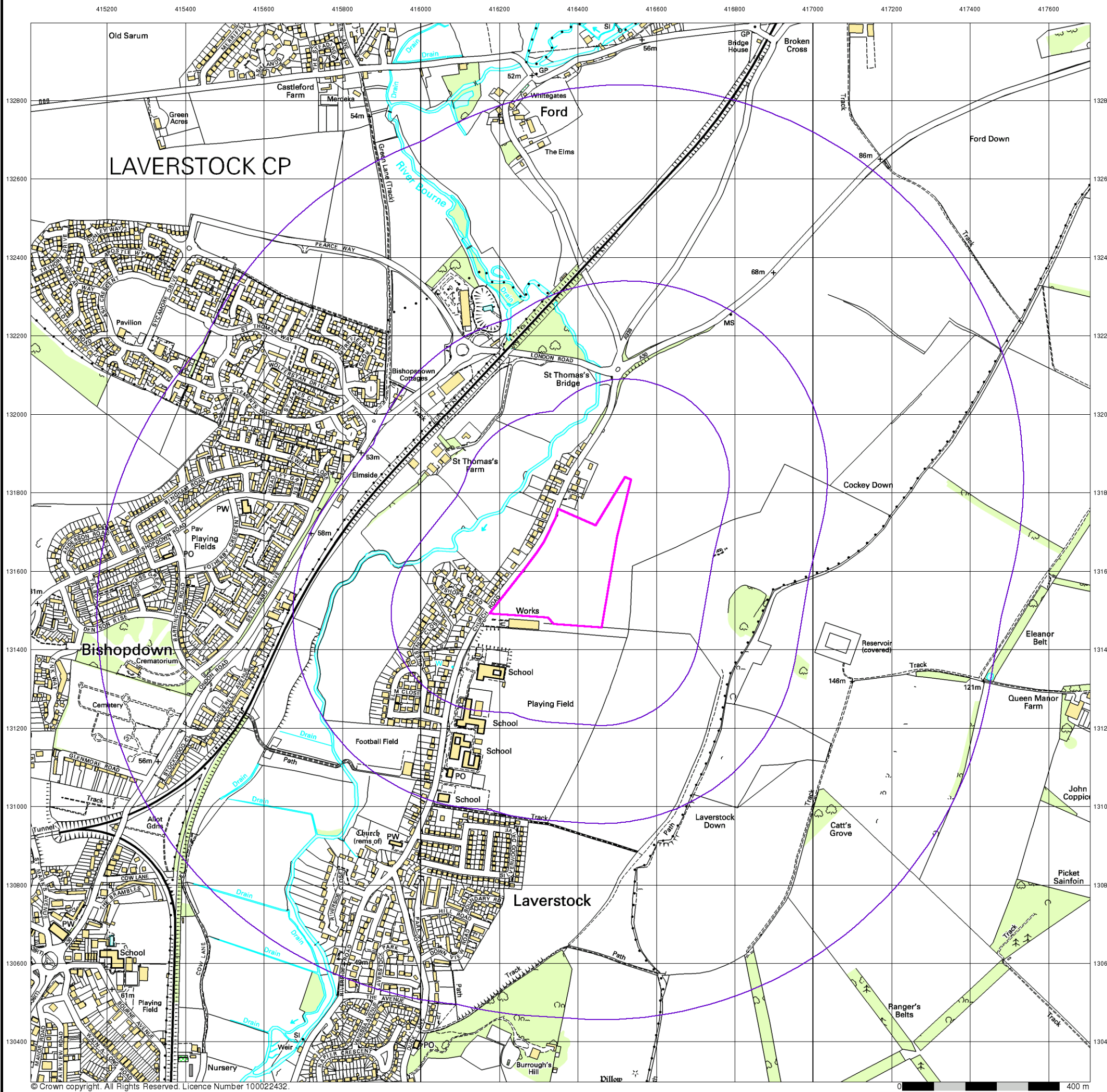
Order Number: 249513477_1_1
Customer Ref: 000109
National Grid Reference: 416380, 131630
Slice: A
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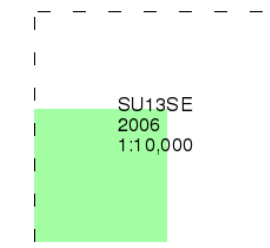
10k Raster Mapping

Published 2006

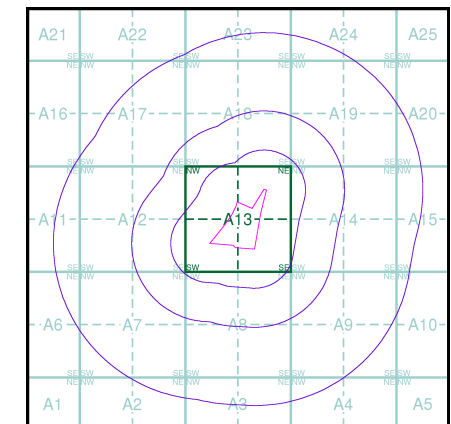
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

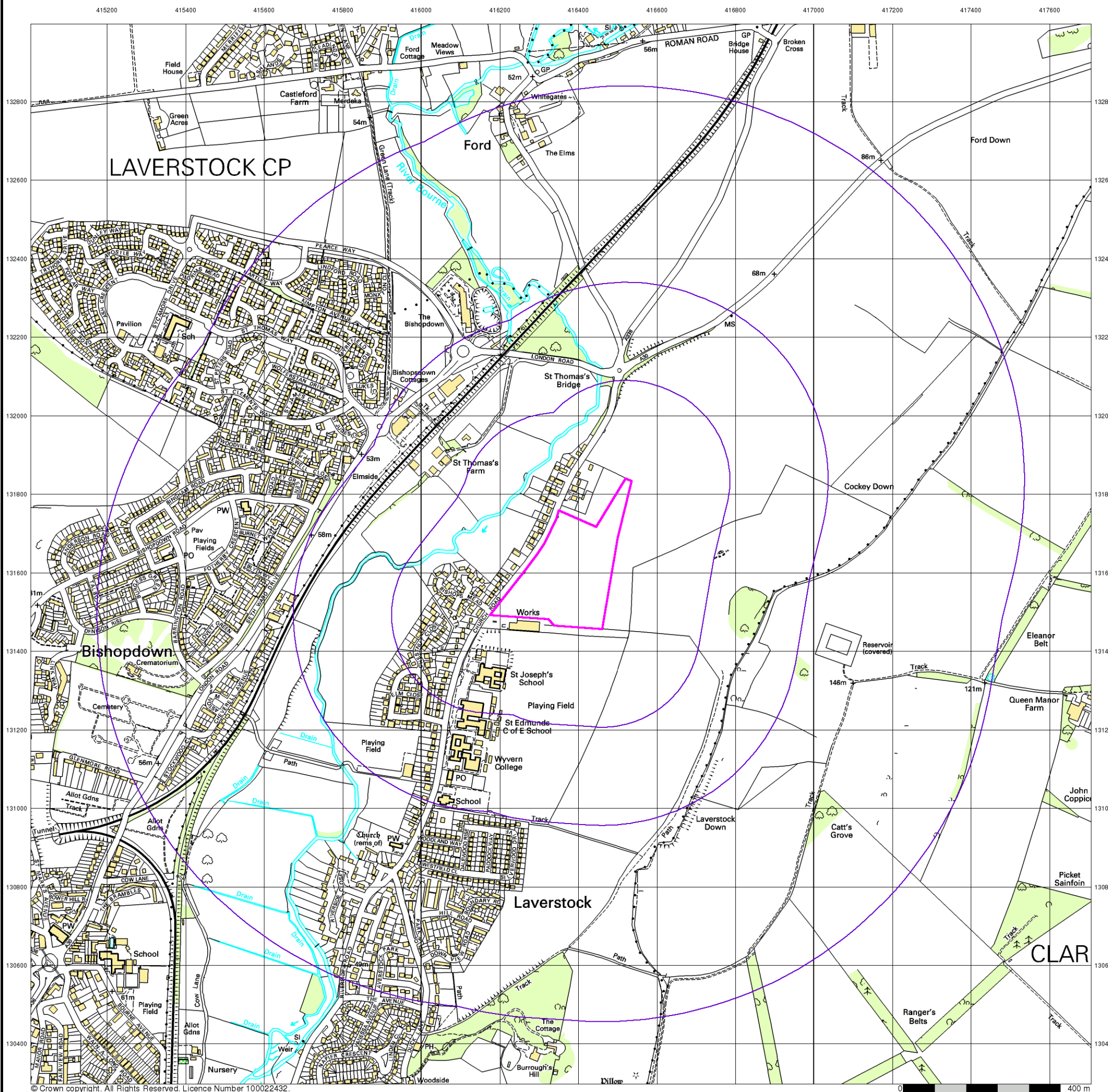
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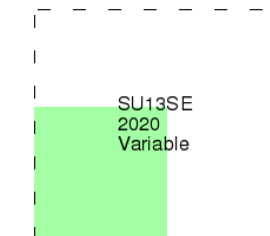
VectorMap Local

Published 2020

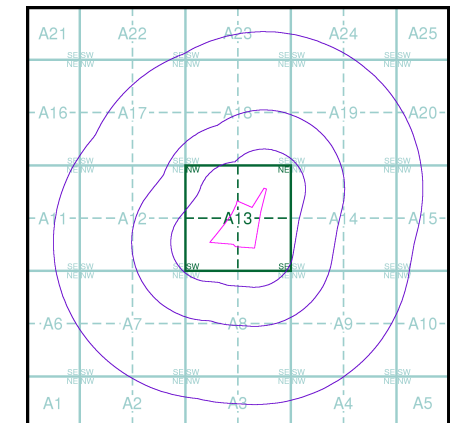
Source map scale - 1:10,000

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

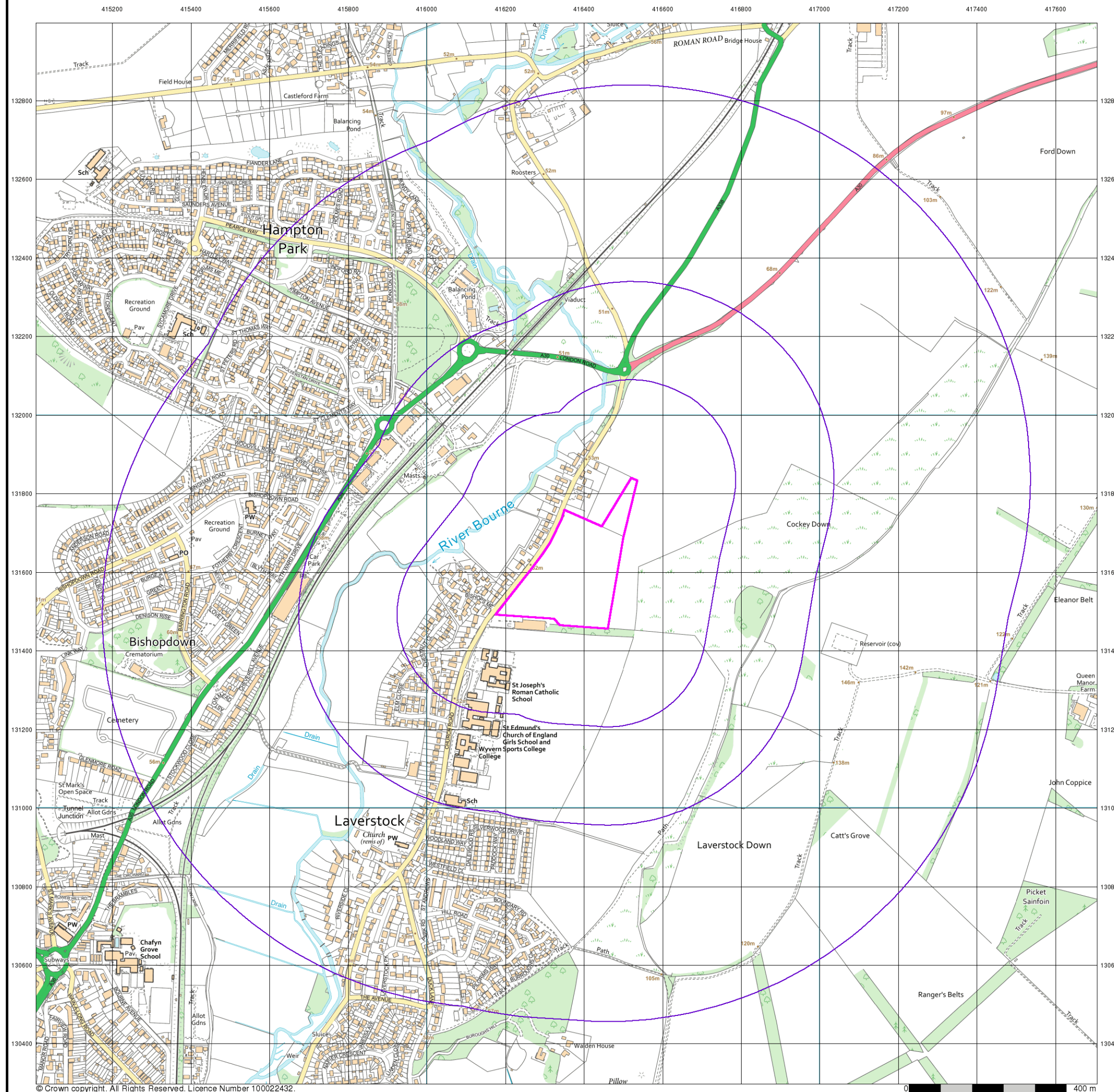
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