Desk Study and Preliminary Risk Assessment

Central Winchester Regeneration

On Behalf of Winchester City Council

Date: January 2017

Our Ref: JER1070

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Quality Management

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Amendment Record

Revision No.	Date	Reason for Change	Authors Initials

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1 INTRODUCTION

1.1 Background

1.1.1 RPS Consulting Services Ltd (RPS) was commissioned by Winchester City Council to provide a Desktop Study Report (DTS) and Preliminary Risk Assessment (PRA) for an area of land located around Tanner Street within the city of Winchester. It is understood that Winchester City Council are proposing to regenerate this area and require an assessment of the potential for historical site uses and resultant contamination to impact on the proposals. It is assumed that the site will be redevelopment for similar retail and commercial uses.

1.1.2 A plan detailing the extent of the site is presented on *RPS Drawing JER1070-LOC-001* provided in *Appendix 1*. This area is herein referred to as the 'Assessment Site'; it covers an area of approximately 6 hectares (ha) and is located at Ordnance Survey National Grid Reference (NGR) SU483295.

1.1.3 The purpose of undertaking this assessment is to review the potential for the presence of ground contamination at the Assessment Site as a result of former and current land uses.

1.1.4 The assessment has been undertaken to a standard that is considered suitable to meet the initial requirements relating to land contamination as outlined within the National Planning Policy Framework (NPPF).

1.2 Objectives

1.2.1 The objectives of this assessment are to:

- Assess likely existing ground conditions, including geological, hydrogeological and hydrological conditions to establish baseline conditions and allow an assessment of environmental sensitivity;
- Identify the potential contamination sources, both from historical and current activities, that may have led to contamination of the Assessment Site from both on-site and off-site sources; and
- Develop a PRA including a Conceptual Site Model (CSM) to support an assessment of the likely risks associated with potential contamination at the Assessment Site.

1.2.2 The methodology followed to produce this DTS and PRA is detailed in *Appendix 2*.

1.3 Limitations of the Desktop Study

1.3.1 This assessment is limited to the information available at the time of production including a Groundsure Insights Report (Refs. 1, 2 and 3) and published environmental / geological data (Refs. 4 and 5).

1.3.2 A full copy of the Groundsure Insights Report is presented within *Appendix 3.*

1.3.3 RPS has not been provided with any previous ground investigation reports for the Assessment Site nor were any identified during a brief review of the Local Authority planning database.

2 Site Walkover

2.1.1 A site walkover survey was performed on 10th January 2017 by an RPS geo-environmental consultant. The main findings of the site walkover survey are detailed below.

2.1.2 The Assessment Site is a relatively flat fully developed city centre area. The surface of the Assessment Site comprised areas of bituminous and concrete hardstanding externally. It is assumed that the developed low rise properties contain concrete hardstanding floors at ground level. There were a number of larger units noted to include underground parking. It should be assumed that at least the larger retail units will have some basement levels and lift shafts, hence any future demolition should take into account removal of buried structures. Several of the buildings within the Assessment Site boundary are currently vacant or under demolition.

2.1.3 The Assessment Site contains several differing types of premises that include large retailers, a multi-story car park with underground parking, transport, residential and former healthcare facilities. The primary source for potential contamination noted is the bus station that was formerly used as a depot for washing / refuelling, which is located to the central eastern portion of the Assessment Site. However, during the walkover it was noted that refuelling, maintenance and bus cleaning operations are no longer undertaken within the depot.

2.1.4 The vast majority of the business types identified were large chain retail outlets, interpreted to present a low risk of on-going contamination at the Assessment Site.

2.1.5 Several surface watercourses were noted within and directly adjacent to the Assessment Site. The River Itchen has been divided into several smaller channels, one of which migrates through the eastern portion of the Assessment Site. The River Itchen was also noted to the east and directly south of the Assessment Site boundary.

2.1.6 Photographs of the Assessment Site taken during the recent site walkover are provided in *Appendix 4*.

3 LAND USE

3.1.1 This section sets out details of the current and historical land use of the Assessment Site and the surrounding area. The data presented does not represent full details of all land uses, but focuses on those that are considered to have the potential to have led to contamination of the Assessment Site. For full details of the land use, the information presented within *Appendix 3* should be consulted.

Site History*	Date		On-site Land Uses	
	From	To		
	1870	1909	The Assessment Site is indicated to be fully developed as a mixture of residential, commercial and industrial properties. Industries within the Assessment Site boundary include two breweries, malt house, hospital, police station, numerous houses and pubs, schools and chapels. A watercourse is shown flowing in two channels through the east of the site, flowing to the south. Within the site boundary one of the branches is culverted below the site the other is open. The Assessment Site is also noted to contain a flax factory; however it is unclear if this factory was used for the production of linen or linseed oil. A fellmonger (a dealer in hides or skins) was present in the east of the site, with numerous pelt pits shown on the map.	The identified uses are considered to have potentially led to contamination of the Assessment Site.
	1909	1952	Individual property operations / activities have not been recorded upon the historical map extracts, however it does not appear that any significant development has been undertaken. The bus depot was first noted in 1950.	It is unclear from the available information what activities are undertaken within the Assessment Site boundary.

	1952	1963	Within the Assessment Site boundary potentially contaminative industries include a bus depot and unspecified warehouse to the south-east and a slaughter house to the west. A building towards the centre of the site is marked as depository; however it is unclear exactly what this stored.	It is possible that maintenance / refuelling activities associated with the omnibus depot may have caused hydrocarbon contamination to underlying soils. It is unclear if the slaughter house contained burial pits, however this is considered unlikely given the city centre location.
	1963	1975	The vast majority of the buildings within Assessment Site boundary have been demolished. Potentially contaminative industries that remain include the omnibus depot and unspecified warehouse to the south east. Large car parking areas are depicted within the central and western Assessment Site boundary.	-
	1975	1994	Redevelopment within the Assessment Site boundary includes government buildings, a post office, a medical centre, two multi storey car parks and surgery. Two unspecified tanks are present within the south east portion and two electricity substations to the south and north-east corner. The site had generally taken its present-day form by this time.	The substation is a potential source of PCBs and the tanks may contain fuels or lubricants.
	1994	2014	No significant changes within the Assessment Site boundary.	-

	Date		Surrounding Land Uses (250 m radius unless otherwise stated)	
	From	To		
	1870	1870	The Assessment Site is surrounded by residential, commercial and industrial uses. The River Itchen is located 29m east at its closest point. A saw mill and the Abbey foundry are located approximately 30m to the north and south respectively. A gasometer is located 100m east of the Assessment Site.	There are a number of potential contamination sources noted to have historically surrounded the Assessment Site, including a foundry, gas works, brewery, saw mill, a gasometer, electricity substations and works. The majority of these features have the potential to cause contamination to underlying soils / groundwater. It appears the central area of Winchester underwent significant redevelopment during the 1960s and 1970s, during which several of the potential contamination uses ceased. It is not possible to determine if any remediation measures were undertaken during the redevelopment, nor how the removal of any asbestos may have been undertaken. However, environmental practices during this era were not typically very strict and it is unlikely that significant remediation took place.
	1870	1909	Abbey Foundry to south has been replaced by Abbey flour mill. A railway line is located approximately 200m east.	
	1909	1938	No significant changes noted within 250m of the Assessment Site boundary.	
	1938	1961	An unspecified works is located approximately 250m north-east of the Assessment Site boundary directly adjacent to the River Itchen. Two garages are located approximately 150m north-east of the Assessment Site. A garage and bus depot are located approximately 80m and 120m south-east of the site boundary respectively.	
	1961	1967	Several small unspecified depots are located within 100m north of the Assessment Site's north-east boundary. A coach depot is located approximately 20m to the west of the site. The gasometer is no longer depicted on the historical map extracts.	
	1967	1994	Several areas of redevelopment have occurred	

			around the Assessment Site. The railway line to the east has been removed, although the tunnel remained (now disused).	
	1994	2014	The site does not appear to be surrounded by industrial land-uses that are likely to have significantly impacted the site or surrounding area.	
Risk	Distance & Direction		Details	Comment
Active landfills (500 m)*	None recorded		There are no recorded active landfills within 500m of the property boundary.	N/A
Historical landfills (500 m)*	361 m north-east		A historical landfill (Railway Cutting) is indicated to be present approximately 361m north east of the property boundary. The landfill is documented as receiving inert and commercial waste from 1978 to an unspecified date under a waste management licence (no reference provided).	Given the distance from the current site boundary and the waste type received by the landfill, it is considered unlikely that the site will be at risk from migrating gas from this site.
Waste Treatment, Transfer and Disposal Sites (500 m)*	N/A		There are no waste treatment, transfer or disposal sites within 500m of the property boundary.	N/A
Current potentially contaminative industrial land use*	On Site (x2) 36m north,		Tanks (Generic)	The tanks located within and at close proximity to the site have the potential to have impacted the Assessment Site if they have been compromised.

(250 m)			There are no recorded pollution incidents associated with the tanks.
	On Site (x2) 20 m east 108 m east 117 m north-west 137 m east 182 m north-east 185 m west 186 m west 187 m south-east 229 m north-west	Electricity Sub Stations	Electricity substations, especially older installations have the potential to contain polychlorinated biphenyls (PCBs), which are a known carcinogen. If PCBs are identified and require disposal, this can be very costly.
	On Site	Unspecified warehouse	There is the potential for a contamination event to occur at the current industrial locations. Particularly at the bus station and vehicle repair garage if fuels, oils and greases are not managed in a compliant manner.
	On Site	Bus Depot	
	196 m south-east	Motor vehicle repair and servicing (Kwik-Fit)	
Petrol and Fuel Sites (500m)*	440 m north-west	There is a single recorded obsolete petrol or fuel station which was located approximately 440m north-west of the property boundary.	There is the potential for fuel leaks from underground tanks to contaminate surrounding soils or enter groundwater. The historical petrol station is not considered likely to present a significant risk to the proposed redevelopment.
Authorisations / IPC / IPPC (250m)*	-	There is one recorded Part B Activity within 250m of the property boundary. The recorded activity relates to a dry cleaning business located approximately 3m west of the site (Gervades located at 7 Upper Brook St).	The licensed activity has the potential to cause contamination to land if not managed adequately.

Licensed Discharge Consents (250 m)*	On Site (x4) 18 m east 20 m east 22 m east 25 m east 44 m north-east 48 m east 137 m east 251 m north east	There are 12 recorded discharge consents within 250m of the property boundary. The discharge consents relate to the discharge of surface water, sewage, swimming pool water and miscellaneous waters. However all of the discharge consents were either revoked or expired between 1991 and 1997 i.e. there are no active discharge consents.	There is the potential that the historical discharge consents could have had a negative impact on soils / groundwater. However, it has been 10 years since the last licence was revoked which indicates that this is not an ongoing issue.
Recorded Pollution Incidents (250m)*	On Site	Pollution of General Biodegradable Materials and Wastes (Animal and Vegetable Oil) on 19th June 2003. The water impact was category 3 (minor), land impact was category 3 (minor) and air impact was category 4 (no impact).	These pollution incidents are considered unlikely to have created a long term impact at the Assessment Site with regards to contamination based on their location and severity.
	53 m east	Pollution of General Biodegradable Materials and Wastes (Food and Drink) on 1st September 2003. The water impact was category 3 (minor), land impact was category 4 (no impact) and air impact was category 4 (no impact).	
	154 m north	Pollutant type not identified. The pollution event occurred on 12th May 2003. The water impact was category 4 (no impact), land impact was category 4 (no impact) and air impact was category 4 (no impact).	

*** Based on review of Groundsure reports and historical maps.**

**** Based on site reconnaissance and review of Groundsure reports.**

4 ENVIRONMENTAL SETTING

4.1.1 This section sets out details of the environmental setting of the Assessment Site and the surrounding areas (Table 4-1).

Table 4.1 - Environmental Sensitivity

Section	Description / Information				Issues / Comments
Geology and Hydrogeology ** ^^	Strata	Description	Aquifer Status	Anticipated Approx. thickness (m)	
	Artificial Ground	There is no artificial ground indicated to be present in the Geo Insight report. During the site walkover, Made Ground in the form of concrete and bituminous surfacing was identified at the ground surface. Further Made Ground should be anticipated, due to the history of development at the site.	Not applicable	Unknown	Given the history of the Assessment Site and its surroundings, any Made Ground that is present has the potential to be contaminated.
	Alluvium (Clay, Silt, Sand and Gravel)	Fine silt and clay from overbank floods forming floodplain Alluvium and some bogs depositing peat. The Alluvium underlies mainly the east of the site, close to the original watercourses.	Secondary (A)	The nearest BGS logs indicate a thickness of between 8.0m and 11.3m of Superficial Deposits.	
	River Terrace Deposits (Sand and Gravel)	These superficial deposits were formed by rivers depositing mainly sand and gravel detrital material in and around channels to form River Terrace Deposits (RTD). The RTD are present below the Alluvium in the east of the site and from ground level in the west of the site (below any Made Ground).	Secondary (A)		The River Terrace Deposits are primarily granular in nature and therefore could form a migration pathway for contamination. Perched groundwater is likely to be present where the sand and gravel overlies the less permeable deposits. Groundwater is generally likely to be

Section	Description / Information				Issues / Comments
					shallow due to the close proximity of the River Itchen.
	Lewes Nodular Chalk Formation and New Pit Chalk Formation	The Lewes Modular Chalk underlies the majority if the site below Made Ground and / or superficial deposits, whilst the New Pit Chalk sub-crops in the south-eastern corner only. The chalk formations comprise rocks that were formed in warm shallow 'Chalk' shelf seas with little sediment input from land. High storage potential for groundwater.	Principal Aquifer	The nearest borehole log (SU42NE210) advanced approximately 50m west of the site indicates Chalk bedrock is present from 11.3m below ground level.	
Groundwater Vulnerability**	The underlying Superficial Deposits comprising River Terrace Deposits and Alluvium are classified by the Environment Agency as a Secondary A aquifer. This means that the deposit has 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. The Lewes Nodular Chalk Formation and New Pit Chalk Formation are classified as Principal Aquifers by the EA. These are layers of rock 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.				The River Terrace Deposits and Alluvium where present at the Assessment Site, are considered a potential groundwater resource that may be easily exposed to contamination from surface activities. The underlying bedrock (Lewes Nodular Chalk Formation and New Pit Chalk Formation) are important groundwater storage reservoirs

Section	Description / Information	Issues / Comments
		utilised as a potable water supply. Where predominantly clay Alluvial Deposits are present these should restrict vertical contamination migration.
Geology and Hydrogeology in Surrounding Area (500 m)**	The Lewes Nodular Chalk Formation, New Pit Chalk Formation, and various other strata within the Upper Chalk, form Principal Aquifers that extend over a significant distance in all directions from the Assessment Site. The Superficial Deposits (Secondary A Aquifers) extend to the north and south of the Assessment Site, following the valley of the River Itchen. The designation associated with River Terrace Deposits and Alluvium extends for at least 4 km in each direction. Superficial Deposits are mainly absent away from the river valley, other than Head Deposits that lie within some smaller valley features.	The Principal Aquifer within the bedrock and the Secondary A Aquifer within the superficial deposits are considered potential receptors. There is the potential that clay rich alluvial deposits will restrict the vertical migration of contamination, however this would need to be confirmed.

Section	Description / Information		Issues / Comments
	Distance & Direction	Details	
SPZs* (500m)	On site	None Identified	-
	Off site	None identified within 500m of the Assessment Site.	-
Surface Water (250m)*	On site	The River Itchen flows through the east of the site orientated in a north-south direction and is partially culverted. Two further culverts are thought to be present below the site (one roughly in the centre of the site and one close to the western boundary), flowing roughly north to south and connecting with a fourth culvert which flows roughly west-east following the site's southern boundary. The culverts are thought to carry branches of the River Itchen.	The identified on-site waterways are the primary receptor from a controlled waters viewpoint. It is anticipated that if any contamination was present in shallow soils it would be able to potentially migrate into the river or culvert network.
	Off site	The nearest surface water feature is the River Itchen which is located 29m east of the Assessment Site boundary at its closest point parts of which are culverted under the site. The culverted waterways that migrate through the Assessment site also continue in a northern and southern direction.	The River Itchen, located in close proximity to the Assessment Site is considered a potential receptor for contamination from the Assessment Site, if present. Migration of contaminants is possible through the shallow superficial deposits (River Terrace Deposits).
Flooding Vulnerability**	On site	The vast majority of the Assessment Site is located within either Flood Zone 2 (in 1,000 or greater chance of flooding happening each year) or Flood Zone 3 (in 100 or greater chance) risk area as defined by the Environment Agency. This is due to the primary river culverted beneath the Assessment Site. The available information does not indicate that there are	The Assessment Site is deemed to be at a high risk of surface water and a risk of flooding from groundwater.

Section	Description / Information		Issues / Comments
		flood defences that have been constructed to protect the Assessment Site. The GroundSure report also indicates that the Assessment Site is at a risk from pluvial (surface water) and groundwater flooding.	
	Off site	Areas determined by the EA to be at risk from flooding (Zone 2 / Zone 3) are noted to run parallel with surface water courses directly north and south of the Assessment Site boundary over a considerable distance. There is also no indication of flood defences to the north or south of the Assessment Site boundary.	Areas of land immediately north and south of the Assessment Site are also deemed at a high risk of pluvial flooding.
Licensed Water Abstractions (1km)*	On site	None identified.	None recorded.
	262 m north-east and 714 m west. 714 m west	There are two groundwater abstraction licences within 1km of the property boundary. These are attributed to a private laundry and Southern Water Limited. There is one potable water abstraction licence within 1 km of the Assessment Site. This is attributed to Southern Water Services Limited who are permitted to abstract a maximum volume of 27,276m^3 per day. There are no surface water abstraction licences within 1 km of the property boundary.	Due to the distance from the Assessment Site and the number of water courses immediately surrounding the Assessment site, the identified water abstractions are not deemed at risk.

Conservation Areas & Sensitive	On site	The Assessment Site is within a Nitrate Vulnerable Zone.	
	Off Site	The wider area around the Assessment Site is also within a	

Land Use (1 km)*		Nitrate Vulnerable Zone (375 north). Sites of Special Scientific Interest (SSSI) are located 24 m east, 220 m north, 517 m south and 739 m north-east respectively. All of the aforementioned areas are attributed to the flood plains surrounding the River Itchen. The River Itchen is also classified as a Special Area of Conservation (SAC) approximately 24m east. The South Down National Park (NP), is located 164 m north at its closest point.	

Risk	Is the site potentially affected?	Details	Comment
Radon*	No	The Assessment Site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.	Radon protective measures are not considered necessary at the Assessment Site.
Coal Mining*^	No	The property is not located within a Coal Authority reporting area.	-
Foundered Strata / Landslide*	On site	The Groundsure report suggests the following hazard ratings at the Assessment Site: • Maximum shrink-swell hazard rating is very low; • Maximum landslides hazard rating is very low; • Maximum soluble rocks hazard rating is very low; • Maximum compressible ground hazard rating is moderate; • Maximum collapsible rocks hazard rating is very low; and • Maximum running sand hazard rating is low.	Natural ground stability hazards at the Assessment Site are considered to be very low to moderate.

*** Based on review of Groundsure reports.**

**** Based on review of geological and hydrogeological maps and Groundsure reports.**

^ Based on a review of Coal Authority Non-Residential Mining Report (Ref. 9).

^^ Based on review of BGS geological map of the area (1:10,000 scale) (Ref. 11).

5 CONCEPTUAL SITE MODEL AND PRELIMINARY RISK ASSESSMENT

5.1.1 In line with CLR11 (Ref. 8) guidance, a conceptual site model and preliminary risk assessment have been developed to qualitatively assess potential contaminant sources, receptors and potential pollutant linkages identified at the Assessment Site. The risk level relevant to each linkage is stated in the context of potential risk to future site users based on the proposed development, as well as controlled water receptors (the underlying Secondary A / Principal aquifers, the on-site primary river and the River Itchen located to the east).

5.1.2 The risk assessment is based on the proposed development of the Assessment Site for the proposed end use as continued retail and commercial development.

5.1.3 The assessment is presented in *Table 5-1*.

Table 5.1 - Summary of Pollutant (Contaminant-Pathway-Receptor) Linkages

Source	Pathway	Receptor	Risk	Notes
HUMAN HEALTH RECEPTORS				
Chemical contamination in soils relating to historical and continued land use of the Assessment Site as vehicle parking, a bus depot, the former slaughter house and the presence of Made Ground from previous phases of development.	Ingestion of soil / dust and inhalation of vapours. Air borne migration of contaminated dusts.	Future site users (including site staff and construction workers)	Low to moderate	The previous uses of the Assessment Site and the current and historical uses of the adjacent areas have the potential to have led to contamination of the Assessment Site. If the Assessment Site was to be continued to be used in its current form the risk rating would be low, however with the proposed redevelopment it is likely that areas of hardstanding will be removed exposing underlying soils / Made Ground. Dependent on the final design of the proposed redevelopment, the end use of the Assessment Site may be considered low sensitivity being subject to limited occupation of retail units and the placing of hardstanding cover over the majority of the Assessment Site, therefore breaking the pathway between contamination in the Made Ground and site users. Landscaped areas may require placement of clean cover. Any future ground investigation should assess the presence of organic contamination and the risk from vapours that may result. A ground gas risk assessment would also be required. Site construction workers will need to use suitable PPE to mitigate risks identified during the ground investigation.

Chemical contamination in soils relating to historical and continued land use neighbouring the Assessment Site as a saw mill, gas holder, foundry and the presence of Made Ground.	Ingestion of soil / dust and inhalation of vapours			

Table 5.1 - Summary of Pollutant (Contaminant-Pathway-Receptor) Linkages (continued)

Source	Pathway	Receptor	Risk	Notes
Ground Gas from Made Ground on-site.	Migration could cause accumulation of gases within the proposed development causing asphyxiation and/or explosive risk	Future Site Users	Low to Moderate	The Made Ground on-site is considered a potential source of ground gas. There have been no previous phases of investigation to provide a true indication of risk or to characterise ground conditions. The end use of the Assessment Site is considered of low sensitivity with respects to ground gas being subject to limited human occupation.

Table 5.1 - Summary of Pollutant (Contaminant-Pathway-Receptor) Linkages ***(continued)***

Source	Pathway	Receptor	Risk	Notes
CONTROLLED WATER RECEPTORS				
Chemical contamination in soils and groundwater relating to Made Ground	Leaching to shallow groundwater and lateral migration to surface waters.	River Itchen (within the site and 29m west of the Assessment Site)	Low to Moderate	The sandy nature of the Superficial Deposits in this area (River Terrace Deposits) means that contamination that may be present at the Assessment Site has the potential to migrate towards the River Itchen. The previous uses of the Assessment Site and the current and historical uses of the adjacent areas have the potential to have led to contamination of the Assessment Site. There is the potential that redevelopment works will disturb areas of Made Ground allowing the mobilisation of contaminants into the underlying River Terrace Deposits (Secondary A Aquifer).
	Leaching of contamination from soils into shallow groundwater	Shallow groundwater (River Terrace Deposits – Secondary A Aquifer)	Low to Moderate	Contaminants within the shallow Made Ground have the potential to leach into the underlying superficial deposits. The sandy nature of the underlying superficial deposits would provide limited attenuation; it is likely that mobile contaminants would migrate directly through the River Terrace Deposits, although alluvial silts and clays may provide an effective barrier between for vertical migration, at least locally. The previous uses of the Assessment Site and the current

				and historical uses of the adjacent areas have the potential to have led to contamination of the Assessment Site. There have been no recent phases of ground investigation to provide information.
	Vertical migration to deeper groundwater	Lewes Nodular Chalk Formation and New Pit Chalk Formation – Principal Aquifers)	Low to moderate	Limited vertical migration of contamination is anticipated through the River Terrace Deposits, due to the likely predominantly horizontal flow. The previous uses of the Assessment Site and the current and historical uses of the adjacent areas have the potential to have led to contamination of the Assessment Site.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1.1 RPS Planning and Development (RPS) was commissioned by Winchester City Council to provide a Desk Study and Preliminary Risk Assessment (PRA) report for an area of land located within Winchester city centre, focused around Tanner Street. It is understood that the area is to be redeveloped for redeveloped retail-led end-use.

6.1.2 The assessment comprised a site reconnaissance survey, a review of available records to confirm the potential for contamination at the Assessment Site and the environmental sensitivity of the Assessment Site and its surrounding areas.

6.1.3 The assessment identified potential for contamination at the Assessment Site relating to the historical use of the Assessment Site associated with car parking, a slaughter house, a bus depot, tanks, electrical substations and Made Ground resulting from previous phases of development on site. The available information suggests there have not been any phases of ground investigation at the Assessment Site to confirm if contamination is present.

6.1.4 Contaminants are likely to include heavy metals, organics and asbestos.

6.1.5 A preliminary Conceptual Site Model (CSM) was developed to inform a PRA that assesses the potential risks posed from the identified potential risks to controlled waters and human health. The preliminary CSM has identified that there is a low to moderate risk to human health and controlled waters. The risk from ground gas was considered to be low to moderate.

6.1.6 It is recommended that ground investigation works are undertaken to allow the depth and composition of Made Ground to be characterised and for analysis of samples to determine its chemical composition. Boreholes should be installed to allow sampling of groundwater and determination of groundwater levels, as well as monitoring of gas concentrations. The ground investigation can also include geotechnical assessment to identify likely foundation solutions.

6.1.7 No significant potential sources of contamination have been identified above those generally associated with an urban site and the risks are not considered high, hence it should be possible to undertake the ground investigation as a likely pre-commencement condition of any future planning application.

REFERENCES

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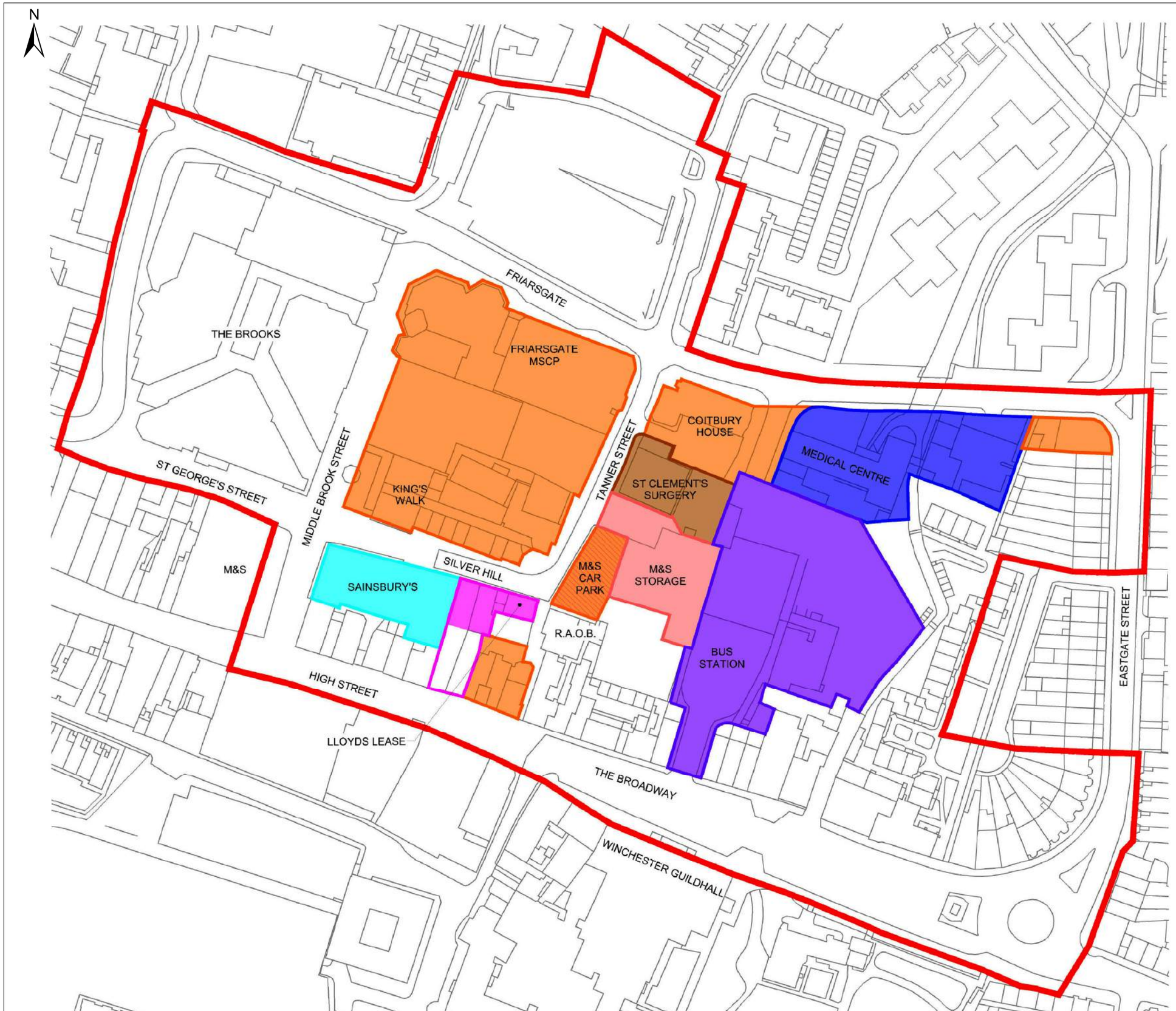
6. Environment Agency. CLR-11 Model Procedures for the Management of Land Contamination, dated September 2004.

APPENDICES

APPENDIX 1

Drawings



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- KING EDWAD VI SCHOOL
- ST CLEMENT'S SURGERY
- HENDERSONS
- M&S/LEASED
- GUARDIAN PENSIONS

Rev	Description	Date	Initial	Checked

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Client WINCHESTER CITY COUNCIL

Project CENTRAL WINCHESTER REGENERATION

Title LAND CONTROL

Status	Drawn By	PM/Checked By
PRELIMINARY	RJ	DJ
Job Ref	**Scale @ A3**	**Date Created**
JER1070	1:1,250	JAN 17

Drawing Number **JER1070-LOC-001** Rev **-**

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APPENDIX 2

Desk Study Methodology

Introduction

This report provides available factual data for the site obtained only from the sources described below and related to the site on the basis of the location provided by the client. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.

This report is written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information and changes in legislation may necessitate a re-interpretation of the report in whole or in part after its original submission. The report is provided for sole use by the client and is confidential to them and their professional advisors. No reliance whatsoever is provided to any party other than the client unless otherwise agreed.

Information Sources

Land Use

This establishes the former and current uses of the site, which could have caused contamination. Details of the site location, the current and proposed site uses have been provided by the client.

Where specified, a site inspection has been carried out by RPS to identify any significant issues associated with current and past activities, neighbouring land uses and other key environmental issues.

Information about the history of the site has been obtained through an inspection of historical maps at 1:10,000, 1:2,500 and 1:1,250 scales (where available). The accuracy of maps cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the map survey dates.

Regulatory records including landfills, pollution incidents ('major' and 'significant' only), industry authorisations and licensed water abstractions are derived from information purchased from Groundsure ltd (unless otherwise specified).

Environmental Setting

It is important to establish the environmental setting because, irrespective of the level of contamination at a site, if its location is not 'sensitive' to this contamination, there is a reduced risk of an environmental liability.

The geological sequence underlying the site and the approximate depths of strata are provided by maps published by the British Geological Survey (BGS) 1:50,000 scale. The hydrogeological classification is obtained from Groundwater Vulnerability mapping on the Environment Agency (EA) website. The vulnerability of groundwater is determined from this mapping and geological information.

The location of surface watercourses is obtained from an inspection of current OS maps. Surface water quality information is taken from the most up-to-date Chemical River Quality General Quality Assessment

(GQA) details published by the EA. Flood risk details and information on groundwater Source Protection Zones are obtained from readily available EA information published on-line.

Details of sensitive ecosystems/habitats and coal mining areas are supplied by English Nature and the Coal Authority respectively via Groundsure Ltd.

Radon is a radioactive gas produced naturally by certain types of geology. This report uses the Indicative Atlas of Radon in England and Wales (2007) produced by the Health Protection Agency (HPA) and the British Geological Survey (BGS) to determine whether the site is located in an area at risk from radon gas. Where potential issues are identified, a site-specific radon report is obtained from the HPA and BGS to provide a more accurate estimate of the probability of the site being affected by radon gas ingress.

Risk Assessment

The Risk Assessment consists of an appraisal of the source-pathway-receptor 'pollutant linkages' which is central to the approach used to determine the existence of 'contaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.

- Source of contamination (Hazard);
- Pathway for the contaminant to move from the source(s) to receptor(s); and
- Receptor (Target) that could be affected by the contaminant(s).

Receptors include human beings, other living organisms, crops, controlled waters and buildings / structures. The mere presence of a contaminant source / hazard at a site does not mean that there will necessarily be attendant risks or that the site will be designated as 'contaminated land'.

The Risk Assessment sections comprise a summary of the land use and environmental sensitivity information demonstrated as the contaminant Source, Pathway and Receptor components. It also incorporates its likelihood of occurrence and commercial impact. It has been classified under three broad categories:

- Low risk - it is considered unlikely that issues assigned this designation will give rise to significant harm;
- Moderate risk - it is possible, but not certain that issues assigned this designation may give rise to significant harm or a liability/cost for the owner of the site; and
- High risk - there is a high potential that issues assigned this designation may give rise to significant harm or a liability/cost for the owner of the site.

In addition the assessment includes consideration of redevelopment constraints i.e. potential for extra-ordinary environment-related development costs, the site's 'suitability for use' and the perception by any future purchasers regarding the potential impact on investment value/saleability. The assessment of redevelopment constraints should be considered preliminary and does not represent an exhaustive assessment of potential constraints.

APPENDIX 3

Groundsure Report

Groundsure Enviro Insight

Address:	**WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ**
Date:	**22 Dec 2016**
Reference:	**RPS-3539598**
Client:	**RPS**

NW N NE

W E

SW S SE

Aerial Photograph Capture date: 04-Jun-2013
Grid Reference: 448396,129496
Site Size: 6.12ha

Report Reference: RPS-3539598
Client Reference: JER1070_-_Central_Winchester_

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	11	2	57	113
1.2 Additional Information – Historical Tank Database	9	8	40	38
1.3 Additional Information – Historical Energy Features Database	7	7	35	66
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	4	41	64
1.6 Potentially Infilled Land	2	0	25	51

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	1	0	2
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	4	6	1	13
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	1	0	2	1
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	1	3	4
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	1	2
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	2	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	11	3

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	8	6	17	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	1	1	10
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	2	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	No	Yes	No	No	No
6.10 Detailed River Network entries within 500m of the site	15	7	24	25	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	High
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	High

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	1	1	0	3	17
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	1	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	1	2	2	2
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	2	0	0	2	0	4
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Very Low
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

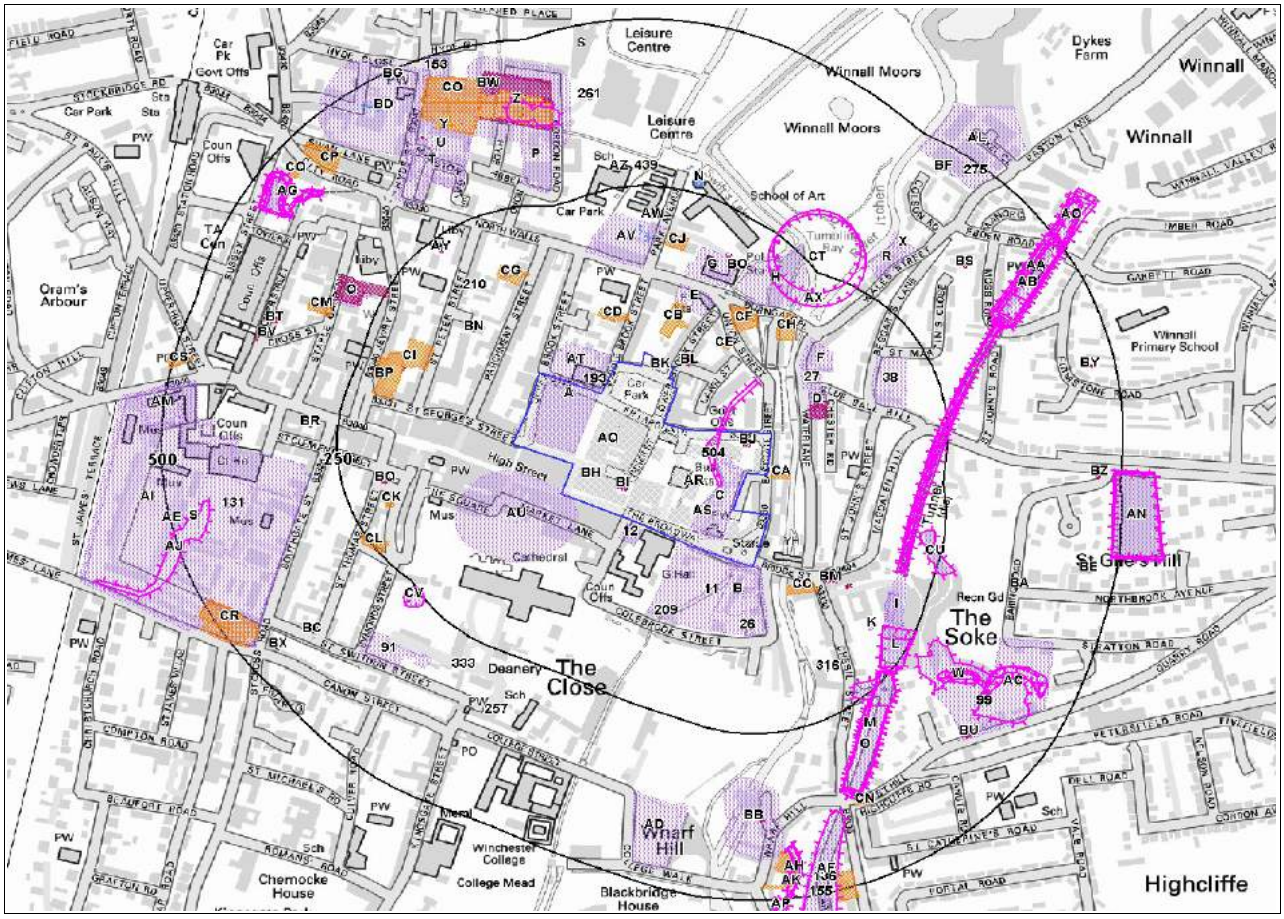
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use

NW N NE

W E

SW S SE



Site Outline

250 / 500 Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 183

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Telecomm Exchange	1989
2A	0	On Site	Telecomm Exchange	1981
3AU	0	On Site	Unspecified Yard	1869
4B	0	On Site	Hospital	1898
5B	0	On Site	Hospital	1898
6C	0	On Site	Hospital	1898
7B	0	On Site	Hospital	1895
8C	0	On Site	Hospital	1869
9C	0	On Site	Hospital	1895
10C	0	On Site	Hospital	1898
11	0	On Site	Hospital	1989
12	6	S	Police Station	1869
13B	8	S	Hospital	1869
14D	57	NE	Unspecified Commercial/Industrial	1895
15D	57	NE	Unspecified Commercial/Industrial	1931
16D	57	NE	Unspecified Commercial/Industrial	1938
17D	57	NE	Unspecified Commercial/Industrial	1908
18D	64	NE	Gasometer	1869
19D	66	NE	Unspecified Tank	1898
20D	66	NE	Unspecified Tank	1898
21D	67	NE	Unspecified Tank	1957
22D	67	NE	Unspecified Tank	1931
23D	67	NE	Unspecified Tank	1895
24D	67	NE	Unspecified Tank	1938
25D	67	NE	Unspecified Tank	1908
26	79	S	Unspecified Mill	1869
27	82	NE	Hospital	1869
28E	87	NE	Fire Station	1989
29E	87	NE	Fire Station	1981
30F	105	NE	Hospital	1898
31F	105	NE	Hospital	1898
32F	106	NE	Hospital	1895

33AV	126	N	Nursery	1869
34G	130	NE	Police Station	1989
35G	130	NE	Police Station	1981
36H	144	NE	Unspecified Works	1968
37H	144	NE	Unspecified Works	1957
38	152	E	Hospital	1908
39K	183	SE	Brewery	1869
40I	193	E	Railway Station	1898
41I	193	E	Railway Station	1898
42J	194	E	Tunnel	1898
43J	194	E	Tunnel	1898
44K	195	E	Railway Station	1908
45I	195	E	Railway Station	1931
46I	196	E	Railway Station	1895
47I	196	E	Railway Station	1938
48J	197	E	Tunnel	1938
49J	197	E	Tunnel	1931
50J	197	E	Tunnel	1908
51J	197	E	Tunnel	1895
52J	197	E	Tunnel	1989
53J	197	E	Tunnel	1957
54J	197	E	Tunnel	1981
55J	197	E	Tunnel	1968
56I	198	E	Railway Station	1957
57L	205	SE	Cuttings	1938
58L	205	SE	Cuttings	1895
59L	205	SE	Cuttings	1908
60L	205	SE	Cuttings	1931
61L	212	SE	Cuttings	1898
62L	212	SE	Cuttings	1898
63L	214	SE	Railway Buildings	1895
64CU	216	E	Unspecified Ground Workings	1869
65M	226	SE	Cuttings	1908
66M	238	SE	Cuttings	1895
67M	238	SE	Cuttings	1938
68M	241	SE	Cuttings	1931
69CV	246	SW	Unspecified Heap	1869
70M	247	SE	Railway Sidings	1908
71N	262	N	Unspecified Tank	1989
72N	262	N	Unspecified Tank	1981
73O	262	SE	Cuttings	1898
74O	262	SE	Cuttings	1898
75Q	266	NW	Gas Works	1869
76P	270	N	Laundry	1898
77P	270	N	Laundry	1898

78V	270	SE	Unspecified Ground Workings	1869
79P	271	N	Laundry	1895
80R	279	NE	Brewery	1895
81Q	280	W	Gasometer	1869
82R	289	NE	Brewery	1869
83S	290	W	Barracks	1938
84S	290	W	Barracks	1895
85T	295	NW	Brewery	1898
86T	295	NW	Brewery	1898
87U	296	N	Unspecified Commercial/Industrial	1968
88U	296	N	Unspecified Commercial/Industrial	1989
89U	296	N	Unspecified Commercial/Industrial	1981
90Y	297	N	Brewery	1895
91	307	SW	Hospital	1869
92V	309	SE	Unspecified Ground Workings	1938
93W	309	SE	Unspecified Pit	1908
94W	309	SE	Unspecified Pit	1931
95S	309	W	Barracks	1908
96S	309	W	Barracks	1931
97S	314	W	Barracks	1869
98BB	315	S	Corn Mills	1869
99	317	SE	Lime Works	1869
100X	326	NE	Brewery	1898
101X	326	NE	Brewery	1898
102T	331	NW	Brewery	1869
103Z	332	N	Electricity Light and Power Station	1908
104Y	337	N	Brewery	1869
105Z	357	N	Unspecified Commercial/Industrial	1931
106AA	358	NE	Cuttings	1898
107AA	358	NE	Cuttings	1898
108AB	361	NE	Cuttings	1989
109AB	361	NE	Cuttings	1957
110AB	361	NE	Cuttings	1981
111AB	361	NE	Cuttings	1968
112AC	366	E	Lime Works	1898
113AC	366	E	Lime Works	1898
114AD	367	S	Nursery	1938
115AB	368	NE	Cuttings	1931
116AC	369	E	Lime Works	1895
117AD	369	S	Nursery	1931
118BD	370	NW	Malthouse Mill	1869

119AA	370	NE	Cuttings	1895
120AA	370	NE	Cuttings	1938
121AC	374	SE	Unspecified Ground Workings	1898
122AC	374	SE	Unspecified Ground Workings	1898
123AE	375	W	Barracks	1898
124AE	375	W	Barracks	1898
125AC	376	SE	Unspecified Pit	1938
126AC	376	SE	Unspecified Quarry	1895
127AF	384	S	Cuttings	1908
128AF	384	S	Cuttings	1895
129AF	384	S	Cuttings	1931
130AF	384	S	Cuttings	1938
131	403	W	Unspecified Tank	1869
132AA	404	NE	Cuttings	1908
133AG	407	NW	Unspecified Ground Workings	1895
134AG	408	NW	Unspecified Ground Workings	1898
135AG	408	NW	Unspecified Ground Workings	1898
136	409	S	Railway Sidings	1957
137AK	420	S	Unspecified Ground Workings	1938
138AH	423	S	Unspecified Ground Workings	1931
139AH	423	S	Unspecified Ground Workings	1908
140AG	424	NW	Unspecified Pit	1898
141AG	424	NW	Unspecified Pit	1898
142AI	426	W	Barracks	1968
143AI	426	W	Barracks	1981
144AI	426	W	Barracks	1957
145AI	426	W	Barracks	1989
146AF	427	S	Railway Sidings	1938
147AF	427	S	Railway Sidings	1895
148AG	430	NW	Unspecified Pit	1869
149AJ	441	W	Unspecified Ground Workings	1898
150AJ	441	W	Unspecified Ground Workings	1898
151AF	441	S	Railway Sidings	1898
152AF	441	S	Railway Sidings	1898
153	457	N	Malthouse Mill	1869
154AK	462	S	Railway Sidings	1931
155	462	S	Railway Sidings	1908
156AL	465	NE	Unspecified Works	1981
157AL	465	NE	Unspecified Works	1989

158AM	471	W	Hospital	1895
159AM	473	W	Hospital	1898
160AM	473	W	Hospital	1898
161AM	474	W	Hospital	1869
162AN	487	E	Cemetery	1989
163AN	487	E	Cemetery	1957
164AN	487	E	Cemetery	1981
165AN	487	E	Cemetery	1968
166AN	488	E	Cemetery	1938
167AN	488	E	Cemetery	1908
168AN	488	E	Cemetery	1931
169AF	490	S	Railway Building	1898
170AF	490	S	Railway Building	1898
171AF	491	S	Railway Building	1957
172AF	491	S	Railway Building	1895
173AF	491	S	Railway Building	1908
174AF	491	S	Railway Building	1931
175AF	491	S	Railway Building	1938
176AO	494	NE	Cuttings	1957
177AO	494	NE	Cuttings	1968
178AO	497	NE	Cuttings	1895
179AO	498	NE	Cuttings	1931
180AO	498	NE	Cuttings	1908
181AO	498	NE	Cuttings	1938
182AP	499	S	Unspecified Ground Workings	1908
183AP	499	S	Unspecified Ground Workings	1931

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 95

ID	Distance (m)	Direction	Use	Date
184BH	0	On Site	Tank or Trough	1871
185AQ	0	On Site	Pump and Tank	1871
186AQ	0	On Site	Pump and Tank	1871
187BK	0	On Site	Tank or Trough	1871
188AR	0	On Site	Unspecified Tank	1994
189AS	0	On Site	Unspecified Tank	1975
190AR	0	On Site	Unspecified Tank	1985

191AR	0	On Site	Unspecified Tank	1975
192AS	0	On Site	Unspecified Tank	1985
193	11	N	Tank or Trough	1871
194AT	27	N	Unspecified Tank	1994
195AT	29	N	Unspecified Tank	1973
196AT	29	N	Unspecified Tank	1985
197AT	29	N	Unspecified Tank	1991
198AT	29	N	Unspecified Tank	1988
199AT	29	N	Unspecified Tank	1991
200AT	29	N	Unspecified Tank	1988
201D	58	NE	Gasholder Station	1952
202D	66	NE	Unspecified Tank	1939
203D	66	NE	Unspecified Tank	1932
204D	66	NE	Gasometer	1871
205D	66	NE	Gasometer	1909
206D	67	NE	Gasholder	1952
207D	67	NE	Gas Holder	1952
208AU	75	SW	Pump and Tank	1871
209	107	S	Unspecified Tank	1871
210	155	NW	Unspecified Tank	1871
211AV	166	N	Tanks	1932
212AV	172	N	Tanks	1939
213AV	177	N	Tanks	1932
214AV	183	N	Tanks	1939
215AW	202	N	Unspecified Tank	1994
216AW	202	N	Unspecified Tank	1991
217AW	202	N	Unspecified Tank	1985
218AW	202	N	Unspecified Tank	1991
219AW	202	N	Unspecified Tank	1988
220AW	202	N	Unspecified Tank	1988
221AW	202	N	Unspecified Tank	1973
222AX	204	N	Unspecified Tank	1963
223AX	205	N	Unspecified Tank	1967
224AX	206	N	Unspecified Tank	1987
225AX	207	N	Unspecified Tank	1967
226AX	207	N	Unspecified Tank	1974
227BP	207	W	Tank or Trough	1871
228AY	228	NW	Tanks	1988
229AY	228	NW	Tanks	1988
230AY	228	NW	Tanks	1985
231AY	229	NW	Tanks	1965
232AY	229	NW	Tanks	1973
233AY	229	NW	Tanks	1952
234AY	229	NW	Tanks	1952
235AY	229	NW	Tanks	1960
236AY	229	NW	Tanks	1967

237AY	231	NW	Tanks	1973
238AY	231	NW	Tanks	1952
239AY	231	NW	Tanks	1965
240Q	242	NW	Gas Works	1871
241N	261	N	Unspecified Tank	1991
242N	261	N	Unspecified Tank	1991
243N	261	N	Unspecified Tank	1985
244N	261	N	Unspecified Tank	1988
245N	261	N	Unspecified Tank	1988
246N	261	N	Unspecified Tank	1967
247Q	273	W	Gas Works	1909
248AZ	275	N	Unspecified Tank	1991
249AZ	275	N	Unspecified Tank	1985
250AZ	275	N	Unspecified Tank	1988
251AZ	275	N	Unspecified Tank	1991
252AZ	275	N	Unspecified Tank	1988
253AZ	276	N	Unspecified Tank	1973
254Q	280	NW	Gasometer	1871
255N	281	N	War Tank	1932
256Q	301	NW	Tank or Trough	1871
257	339	S	Pump and Tank	1871
258BA	368	E	Unspecified Tank	1939
259BA	368	E	Unspecified Tank	1932
260BA	371	E	Unspecified Tank	1909
261	387	N	Unspecified Tank	1984
262BB	393	S	Tank or Trough	1871
263BC	399	SW	Unspecified Tank	1909
264BC	404	SW	Unspecified Tank	1932
265BD	452	NW	Tanks	1973
266BE	457	E	Unspecified Tank	1952
267BE	458	E	Unspecified Tank	1960
268BE	458	E	Unspecified Tank	1952
269BD	463	NW	Tanks	1965
270BD	463	NW	Tanks	1967
271BF	464	NE	Tanks	1987
272BF	464	NE	Tanks	1991
273BF	465	NE	Tanks	1974
274BF	465	NE	Tanks	1991
275	486	NE	Unspecified Tank	1974
276BG	489	NW	Unspecified Tank	1993
277BG	490	NW	Unspecified Tank	1984
278BG	490	NW	Unspecified Tank	1967

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 115

ID	Distance (m)	Direction	Use	Date
279BH	0	On Site	Electricity Substation	1994
280BI	0	On Site	Electricity Substation	1975
281BI	0	On Site	Electricity Substation	1985
282BJ	0	On Site	Electricity Substation	1985
283BJ	0	On Site	Electricity Substation	1988
284BJ	0	On Site	Electricity Substation	1993
285BJ	0	On Site	Electricity Substation	1989
286BK	19	E	Electricity Substation	1994
287BL	20	E	Electricity Substation	1985
288BL	20	E	Electricity Substation	1991
289BL	20	E	Electricity Substation	1988
290BL	20	E	Electricity Substation	1988
291BL	20	E	Electricity Substation	1991
292BL	20	E	Electricity Substation	1973
293D	58	NE	Gasholder Station	1952
294D	66	NE	Gasometer	1871
295D	66	NE	Gasometer	1909
296D	67	NE	Gasholder	1952
297D	67	NE	Gas Holder	1952
298BM	104	E	Electricity Substation	1988
299BM	104	E	Electricity Substation	1985
300BM	104	E	Electricity Substation	1989
301BN	111	NW	Electricity Substation	1988
302BN	111	NW	Electricity Substation	1988
303BN	111	NW	Electricity Substation	1991
304BN	111	NW	Electricity Substation	1985
305BN	111	NW	Electricity Substation	1994
306BN	112	NW	Electricity Substation	1973
307BM	114	E	Electricity Substation	1993
308BM	133	E	Electricity Substation	1993
309BM	135	E	Electricity Substation	1988
310BM	135	E	Electricity Substation	1985
311BM	135	E	Electricity Substation	1989
312BO	173	NE	Electricity Substation	1974
313BO	173	NE	Electricity Substation	1991
314G	181	NE	Electricity Substation	1987
315BP	184	W	Electricity Substation	1994

316	184	SE	Electricity Substation	1993
317BP	186	W	Electricity Substation	1988
318BP	186	W	Electricity Substation	1991
319BP	186	W	Electricity Substation	1991
320BP	186	W	Electricity Substation	1988
321BQ	186	W	Electricity Substation	1985
322BQ	186	W	Electricity Substation	1975
323BQ	187	W	Electricity Substation	1994
324AY	226	NW	Electricity Substation	1991
325AY	226	NW	Electricity Substation	1994
326AY	227	NW	Electricity Substation	1991
327Q	242	NW	Gas Works	1871
328Q	273	W	Gas Works	1909
329Q	280	NW	Gasometer	1871
330BR	288	W	Electricity Substation	1987
331BR	288	W	Electricity Substation	1993
332BR	288	W	Electricity Substation	1991
333	292	SW	Electricity Substation	1994
334Z	357	N	Electricity Light and Power Station	1909
335Z	359	N	Electricity Works	1952
336BS	369	NE	Electricity Substation	1987
337BS	370	NE	Electricity Substation	1974
338BS	370	NE	Electricity Substation	1991
339BB	377	S	Electricity Substation	1995
340BB	377	S	Electricity Substation	1995
341Z	377	N	Electricity Works	1952
342BT	378	W	Electricity Substation	1993
343BB	378	S	Electricity Substation	1981
344BB	378	S	Electricity Substation	1988
345BT	378	W	Electricity Substation	1991
346BT	378	W	Electricity Substation	1952
347BT	378	W	Electricity Substation	1970
348BT	378	W	Electricity Substation	1969
349BT	378	W	Electricity Substation	1952
350BB	379	S	Electricity Substation	1971
351BT	379	W	Electricity Substation	1987
352BT	379	W	Electricity Substation	1978
353BT	379	W	Electricity Substation	1978
354BV	385	W	Electricity Substation	1991
355Y	388	NW	Electricity Substation	1988
356Y	388	NW	Electricity Substation	1991
357Y	388	NW	Electricity Substation	1991
358Y	388	NW	Electricity Substation	1994
359BU	390	SE	Electricity Substation	1993
360BU	390	SE	Electricity Substation	1988

361BU	390	SE	Electricity Substation	1985
362BU	390	SE	Electricity Substation	1989
363BU	390	SE	Electricity Substation	1952
364BU	391	SE	Electricity Substation	1952
365BU	391	SE	Electricity Substation	1967
366BU	391	SE	Electricity Substation	1967
367BV	395	W	Electricity Substation	1993
368Z	398	N	Electricity Works	1967
369Z	398	N	Electricity Works	1952
370Z	398	N	Electricity Works	1966
371Z	398	N	Electricity Works	1952
372BW	420	N	Electricity Substation	1993
373BW	421	N	Electricity Substation	1984
374BX	448	SW	Electricity Substation	1952
375BX	448	SW	Electricity Substation	1969
376BX	448	SW	Electricity Substation	1970
377BX	448	SW	Electricity Substation	1952
378BX	448	SW	Electricity Substation	1969
379BX	449	SW	Electricity Substation	1988
380BX	449	SW	Electricity Substation	1988
381BX	449	SW	Electricity Substation	1985
382BX	451	SW	Electricity Substation	1996
383BX	451	SW	Electricity Substation	1998
384BX	451	SW	Electricity Substation	1996
385BY	459	E	Electricity Substation	1983
386BY	459	E	Electricity Substation	1968
387BY	460	E	Electricity Substation	1993
388BY	460	E	Electricity Substation	1967
389BZ	465	E	Electricity Substation	1988
390BZ	465	E	Electricity Substation	1990
391BZ	465	E	Electricity Substation	1990
392BZ	465	E	Electricity Substation	1990
393BZ	465	E	Electricity Substation	1975

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 109

ID	Distance (m)	Direction	Use	Date
394CA	5	E	Garage	1960
395CA	5	E	Garage	1952
396CB	36	NE	Coach Works	1952
397CB	36	NE	Coach Works	1952
398CD	53	NW	Garage	1952
399CC	54	SE	Garage	1952
400CC	54	SE	Garage	1960
401CC	55	SE	Garage	1952
402CD	55	NW	Garage	1960
403CE	71	NE	Garage	1960
404CE	71	NE	Garage	1952
405CF	105	NE	Garage	1987
406CF	106	NE	Garage	1967
407CF	117	NE	Garage	1963
408CF	117	NE	Garage	1952
409CF	118	NE	Garage	1960
410CF	118	NE	Garage	1967
411CF	118	NE	Garage	1974
412CF	118	NE	Garage	1991
413CG	135	N	Garage	1991
414CG	135	N	Garage	1988
415CG	135	N	Garage	1988
416CG	135	N	Garage	1991
417CH	142	N	Garage	1952
418CH	142	N	Garage	1960
419CG	146	N	Garage	1994
420CI	153	W	Garages	1973
421CI	153	W	Garages	1965
422CJ	162	N	Garage	1973
423CJ	162	N	Garage	1965
424CJ	162	N	Garage	1967
425CK	183	SW	Garage	1965
426BP	184	W	Garages	1952
427BP	184	W	Garages	1967
428BP	184	W	Garages	1952
429BP	184	W	Garages	1960
430CK	184	SW	Garage	1952

431CK	188	SW	Garage	1967
432CK	188	SW	Garage	1960
433CL	228	SW	Garage	1985
434CL	237	SW	Garage	1975
435CL	237	SW	Garage	1960
436CL	243	SW	Garage	1967
437CL	243	SW	Garage	1965
438CL	243	SW	Garage	1952
439	272	N	Garage	1994
440CM	310	W	Garage	1969
441CM	311	W	Garage	1970
442CM	311	W	Garage	1978
443CM	311	W	Garage	1978
444Z	363	N	Garage	1991
445Z	363	N	Garage	1988
446Z	363	N	Garage	1988
447Z	363	N	Garage	1991
448Z	363	N	Garage	1985
449Z	364	N	Garage	1994
450Y	369	N	Garage	1988
451Y	369	N	Garage	1991
452Y	369	N	Garage	1991
453Y	369	N	Garage	1988
454Y	369	N	Garage	1985
455Y	370	N	Garage	1973
456Y	370	N	Garage	1965
457Y	370	N	Garage	1967
458Y	370	N	Garage	1994
459CN	380	S	Electric Engineering Works	1988
460CN	380	S	Electric Engineering Works	1981
461Z	402	N	Garage	1993
462BW	403	N	Garage	1984
463CO	413	N	Garage	1993
464CO	414	N	Garage	1967
465CO	414	N	Garage	1966
466CO	414	N	Garage	1984
467CO	415	N	Motor Works	1952
468CP	416	NW	Garage	1987
469CP	416	NW	Garage	1978
470CP	416	NW	Garage	1978
471CP	420	NW	Garage	1993
472CP	421	NW	Garage	1991
473CP	421	NW	Garage	1970
474CP	427	NW	Garage	1969

475AH	428	S	Garage	1951
476CP	442	NW	Garage	1987
477CP	442	NW	Garage	1978
478CP	442	NW	Garage	1978
479CP	442	NW	Garage	1969
480CP	443	NW	Garage	1970
481CQ	451	NW	Imperial Garage	1952
482CQ	452	NW	Imperial Garage	1952
483CR	454	SW	Garage	1969
484CR	454	SW	Garage	1970
485CR	454	SW	Garage	1969
486CR	461	SW	Garage	1988
487CR	461	SW	Garage	1988
488CR	461	SW	Garage	1985
489CR	464	SW	Garage	1996
490CR	464	SW	Garage	1996
491CR	464	SW	Garage	1998
492AF	472	S	Garage	1995
493AF	472	S	Garage	1995
494AF	473	S	Garage	1971
495CS	473	W	Garage	1970
496CS	473	W	Garage	1952
497CS	473	W	Garage	1952
498CS	473	W	Garage	1969
499AF	474	S	Garage	1988
500AF	474	S	Garage	1981
501CS	482	W	Garage	1978
502CS	482	W	Garage	1978

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 78

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
503	0	On Site	Pond	1869
504	0	On Site	Pond	1869
505CT	192	NE	Lake	1908
506CT	192	NE	Lake	1931
507J	194	E	Tunnel	1898
508J	194	E	Tunnel	1898
509J	197	E	Tunnel	1938
510J	197	E	Tunnel	1895
511J	197	E	Tunnel	1908
512J	197	E	Tunnel	1931

513J	197	E	Tunnel	1981
514J	197	E	Tunnel	1957
515J	197	E	Tunnel	1968
516J	197	E	Tunnel	1989
517L	205	SE	Cuttings	1895
518L	205	SE	Cuttings	1938
519L	205	SE	Cuttings	1908
520L	205	SE	Cuttings	1931
521CT	208	NE	Lake	1938
522L	212	SE	Cuttings	1898
523L	212	SE	Cuttings	1898
524CU	216	E	Unspecified Ground Workings	1869
525M	226	SE	Cuttings	1908
526M	238	SE	Cuttings	1938
527M	238	SE	Cuttings	1895
528M	241	SE	Cuttings	1931
529CV	246	SW	Unspecified Heap	1869
530O	262	SE	Cuttings	1898
531O	262	SE	Cuttings	1898
532V	270	SE	Unspecified Ground Workings	1869
533V	309	SE	Unspecified Ground Workings	1938
534V	309	SE	Unspecified Pit	1908
535V	309	SE	Unspecified Pit	1931
536AA	358	NE	Cuttings	1898
537AA	358	NE	Cuttings	1898
538AB	361	NE	Cuttings	1957
539AB	361	NE	Cuttings	1981
540AB	361	NE	Cuttings	1968
541AB	361	NE	Cuttings	1989
542Z	365	N	Fish Ponds	1869
543AB	368	NE	Cuttings	1931
544AA	370	NE	Cuttings	1938
545AA	370	NE	Cuttings	1895
546AC	374	SE	Unspecified Ground Workings	1898
547AC	374	SE	Unspecified Ground Workings	1898
548AC	376	SE	Unspecified Pit	1938
549AC	376	SE	Unspecified Quarry	1895
550AF	384	S	Cuttings	1895
551AF	384	S	Cuttings	1908
552AF	384	S	Cuttings	1938
553AF	384	S	Cuttings	1931
554AA	404	NE	Cuttings	1908

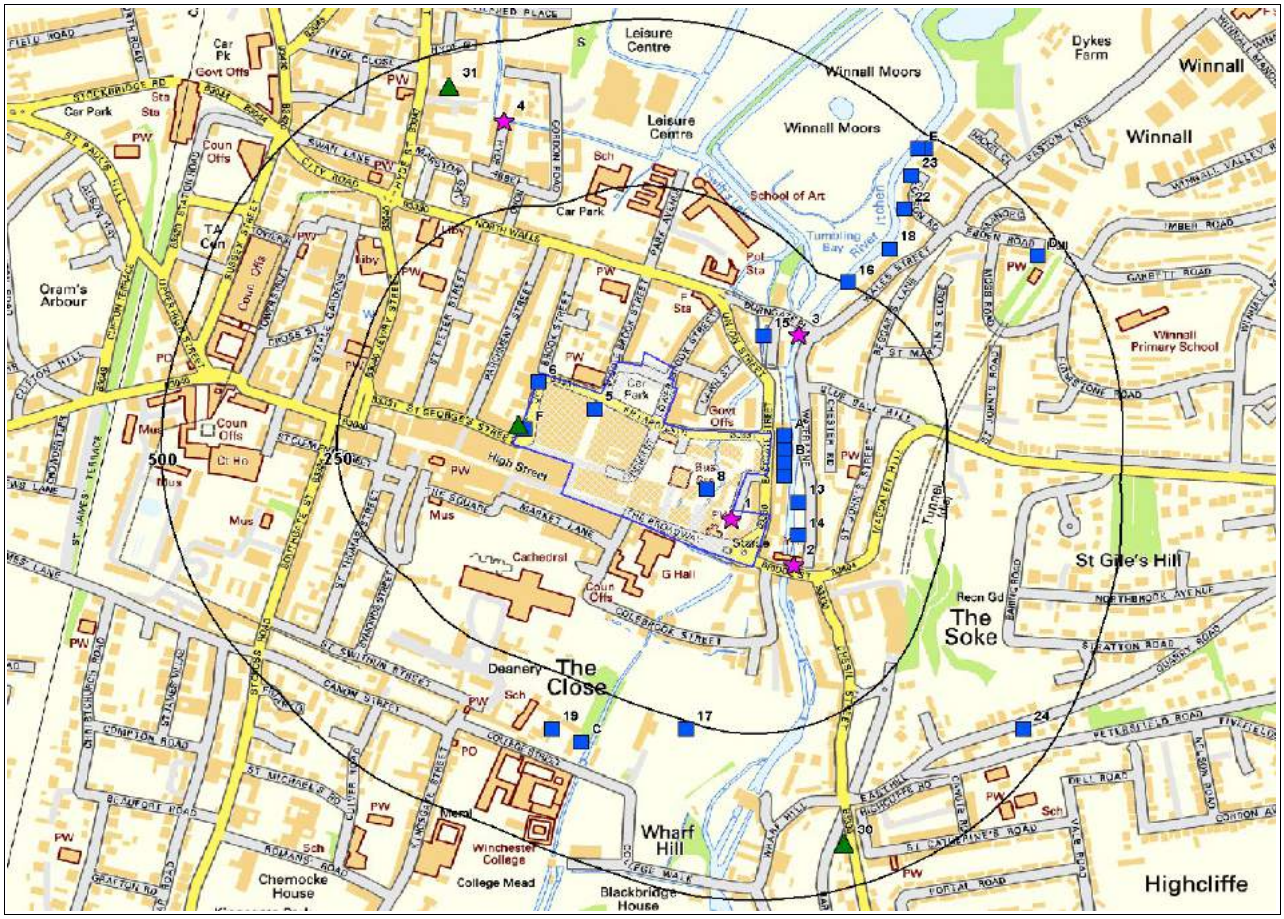
555AG	407	NW	Unspecified Ground Workings	1895
556AG	408	NW	Unspecified Ground Workings	1898
557AG	408	NW	Unspecified Ground Workings	1898
558AK	420	S	Unspecified Ground Workings	1938
559AH	423	S	Unspecified Ground Workings	1931
560AH	423	S	Unspecified Ground Workings	1908
561AG	424	NW	Unspecified Pit	1898
562AG	424	NW	Unspecified Pit	1898
563AG	430	NW	Unspecified Pit	1869
564AJ	441	W	Unspecified Ground Workings	1898
565AJ	441	W	Unspecified Ground Workings	1898
566AN	487	E	Cemetery	1981
567AN	487	E	Cemetery	1968
568AN	487	E	Cemetery	1957
569AN	487	E	Cemetery	1989
570AN	488	E	Cemetery	1938
571AN	488	E	Cemetery	1931
572AN	488	E	Cemetery	1908
573AO	494	NE	Cuttings	1957
574AO	494	NE	Cuttings	1968
575AO	497	NE	Cuttings	1895
576AO	498	NE	Cuttings	1908
577AO	498	NE	Cuttings	1931
578AO	498	NE	Cuttings	1938
579AP	499	S	Unspecified Ground Workings	1931
580AP	499	S	Unspecified Ground Workings	1908

2. Environmental Permits, Incidents and Registers Map

NW N NE

W E

SW S SE



- Site Outline
- Search Buffers (m) (250, 500)
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

3

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
29F	3	W	448222 129514	Address: Gervades (N Akhtar & J B Akhtar), 7 Upper Brook St, Winchester, SO23 8AR Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified
30	437	S	448684 128885	Address: Scothall Hampshire, Unit1 Bar End Industrial Estate, Winchester, RG23 7HH Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified
31	446	N	448123 130022	Address: Evans Halshaw, Hyde St (now Silchester Place), SO23 7FT Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

24

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
5	0	On Site	448330 129540	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991
6	0	On Site	448250 129580	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991

ID	Distance (m)	Direction	NGR	Details	
7F	0	On Site	448230 129510	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991
8	0	On Site	448490 129420	Address: OMNIBUS STATION, OMNIBUS STATION, BROADWAY, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: H01253 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 12/01/1967 Effective Date: 12-Jan-1967 Revocation Date: 08/03/1996
9A	18	E	448600 129500	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
10A	20	E	448600 129480	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
11B	22	E	448600 129460	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
12B	25	E	448600 129440	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
13	44	NE	448620 129400	Address: CHESTER ROAD, CHESTER ROAD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01169 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 22/07/1982 Effective Date: 22-Jul-1982 Revocation Date: 31/03/1997
14	48	E	448620 129350	Address: 7-13 WATER LANE, 7-13 WATER LANE, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01875 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 01/07/1991
15	137	E	448570 129650	Address: 36-39 UNION STREET, 36-39 UNION STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01876 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 01/07/1991

ID	Distance (m)	Direction	NGR	Details	
16	251	NE	448690 129730	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
17	261	S	448460 129060	Address: THE CASTLE, THE CASTLE, WINCHESTER, HAMPSHIRE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: N01620 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 20/08/1979 Effective Date: 20-Aug-1979 Revocation Date: -
18	324	NE	448750 129780	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
19	332	SW	448270 129060	Address: THE PILGRIMS' SCHOOL, THE PILGRIMS' SCHOOL, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SWIMMING POOL WATER Permit Number: H02615 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 23/08/1966 Effective Date: 23-Aug-1966 Revocation Date: 31/03/1997
20C	333	SW	448310 129040	Address: THE PILGRIMS SCHOOL - SWIMMING POOL, THE PILGRIMS SCHOOL, THE CLOSE, WINCHESTER, HAMPSHIRE, SO23 9LT Effluent Type: MISCELLANEOUS DISCHARGES - SWIMMING POOL WATER Permit Number: H01088 Permit Version: 2	Receiving Water: RIVER ITCHEN Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 06/02/2007 Effective Date: 06-Feb-2007 Revocation Date: -
21C	333	SW	448310 129040	Address: THE PILGRIMS SCHOOL - SWIMMING POOL, THE PILGRIMS SCHOOL, THE CLOSE, WINCHESTER, HAMPSHIRE, SO23 9LT Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - NOT WATER COMPANY Permit Number: H01088 Permit Version: 1	Receiving Water: RIVER ITCHEN Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/04/1966 Effective Date: 14-Apr-1966 Revocation Date: 05/02/2007
22	386	NE	448770 129840	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
23	435	NE	448780 129890	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997

ID	Distance (m)	Direction	NGR	Details	
24	454	SE	448940 129060	Address: LAND N.W OF 10 QUARRY ROAD, LAND N.W OF 10 QUARRY ROAD, WINCHESTER, HAMPSHIRE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: N03284 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 08/02/1978 Effective Date: 08-Feb-1978 Revocation Date: 31/03/1997
25D	463	NE	448960 129770	Address: SCOUT HEADQUARTERS, WINALL, SCOUT HEADQUARTERS, GARBETT ROAD, WINALL, WINCHESTER, HAMPSHIRE, SO23 0NY Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P01427 Permit Version: 1	Receiving Water: INTO LAND Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 25/02/1988 Effective Date: 25-Feb-1988 Revocation Date: 20/12/2012
26D	463	NE	448960 129770	Address: SCOUT HEADQUARTERS, WINALL, SCOUT HEADQUARTERS, GARBETT ROAD, WINALL, WINCHESTER, HAMPSHIRE, SO23 0NY Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P01427 Permit Version: 2	Receiving Water: INTO LAND Status: VARIED UNDER EPR 2010 Issue date: 21/12/2012 Effective Date: 21-Dec-2012 Revocation Date: -
27E	475	NE	448790 129930	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
28E	479	NE	448800 129930	Address: 77 WALES STREET, 77 WALES STREET, WINCHESTER, HAMPSHIRE Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: H02754 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 04/10/1971 Effective Date: 04-Oct-1971 Revocation Date: 31/03/1997

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

4

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1	0	On Site	448524 129375	Incident Date: 19-Jun-2003 Incident Identification: 167196 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Animal and Vegetable Oil	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2	53	E	448612 129306	Incident Date: 01-Sep-2003 Incident Identification: 186587 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Food and Drink	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	154	N	448620 129652	Incident Date: 12-May-2003 Incident Identification: 157617 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	381	N	448200 129972	Incident Date: 23-Jul-2001 Incident Identification: 18509 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map

NW N NE

W E

SW S SE

Site Outline

250 / 500 Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

8

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
4	361	NE	448900 129700	Site Address: Railway Cutting, Winnal Valley Road, Winchester, Hamsphire Waste Licence: Yes Site Reference: FW36, 5/13 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: City of Winchester, City Offices, Colebrook Street, Winchester, Hampshire Operator: - Licence Holder: City Engineer First Recorded: 15-May-1978 Last Recorded: -
5	634	NE	449100 130000	Site Address: Disused Railway Cutting at Easton Lane, Winchester, Hampshire Waste Licence: - Site Reference: FW52 Waste Type: Inert, Industrial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: - First Recorded: 01-Jan-1969 Last Recorded: -
6	710	NE	449100 130200	Site Address: Winnall, Winchester, Hampshire Waste Licence: - Site Reference: FW19 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: - First Recorded: 31-Jan-1969 Last Recorded: -
Not shown	752	N	448600 130400	Site Address: Nuns Road, Winchester, Hampshire Waste Licence: - Site Reference: FW50, WIN 9 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: Hyde Street, Winchester Operator: R J Best Licence Holder: R J Best First Recorded: 01-Jan-1963 Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1090	SE	449400 128500	Site Address: King George V Playing Fields, Winchester Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1167	SW	447900 128200	Site Address: Garnier Road Pumping Station, Winchester, Hampshire Waste Licence: - Site Reference: WIN 8 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: City of Winchester First Recorded: 01-Jan-1910 Last Recorded: -
Not shown	1238	SE	449400 128200	Site Address: Land At Morestead Waste Water Treatment Works, Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Waste Licence: Yes Site Reference: FW61, W140a Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: SI1/L/DEP001	Licence Issue: 23-Aug-1993 Licence Surrendered: 10-Dec-2001 Licence Holder Address: South East Construction Programme Division, Federated House, London Road, Dorking Operator: Department Of Transport Licence Holder: Department of Transport First Recorded: 23-Aug-1993 Last Recorded: -
Not shown	1401	NE	449700 130400	Site Address: Spitfire Link, Easton Lane, Winchester Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

3

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
Not shown	897	N	448600.0 130500.0	Address: Nuns Road, Winchester BGS Number: 514.0	Risk: Risk to major and minor aquifer Waste Type: N/A
Not shown	1009	NE	449200.0 130300.0	Address: Winnall, Winchester BGS Number: 515.0	Risk: Risk to major aquifer Waste Type: N/A
Not shown	1227	S	448000.0 128200.0	Address: Garnier Road Pumping Station, Winchester BGS Number: 513.0	Risk: Risk to major and minor aquifer Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

2

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	758	N	448604 130522	Nuns road	Environment Agency	Polygon
Not shown	864	NE	449170 130310	Refuse Tip	1972 mapping	Polygon

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

14

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

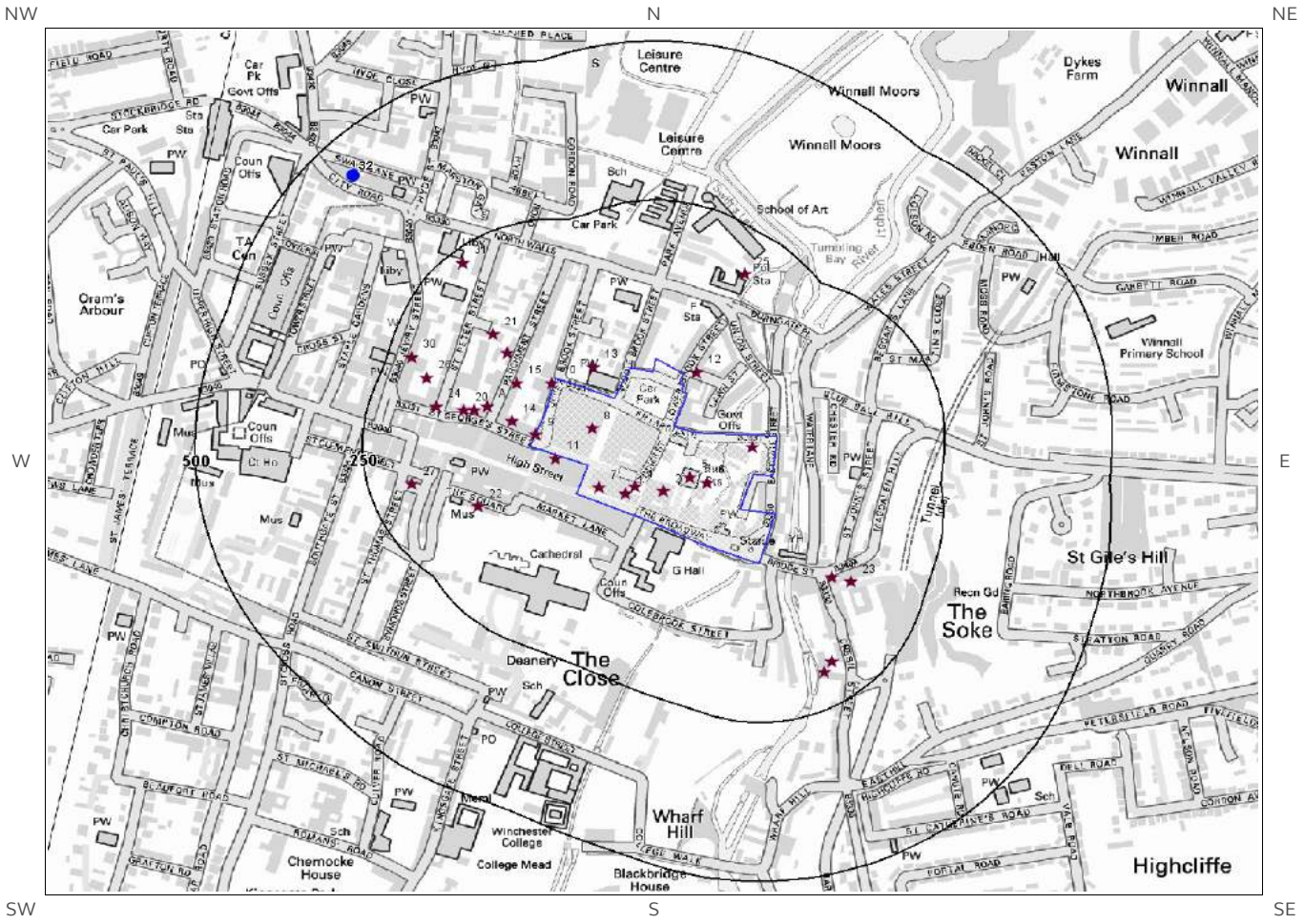
ID	Distance (m)	Direction	NGR	Details	
Not shown	568	S	448630 128740	Site Address: C D Jordan & Son Ltd, Barfield Close, Bar End, Winchester, Hampshire, SO23 9SQ Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CDJ001 EPR reference: EA/EPR/MP3192HE/S003 Operator: C D Jordan & Son Ltd Waste Management licence No: 19850 Annual Tonnage: 0.0	Issue Date: 19/06/1997 Effective Date: 20/02/2003 Modified: 11/12/2009 Surrendered Date: 29/11/2012 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: C D Jordan & Son Ltd Correspondence Address: -
Not shown	675	S	448780 128666	Site Address: Central Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SER001 EPR reference: EA/EPR/RP3395HX/V002 Operator: Serco Ltd Waste Management licence No: 10208 Annual Tonnage: 4800.0	Issue Date: 13/12/1999 Effective Date: - Modified: 18/05/2001 Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Modified Site Name: Serco Ltd - Bar End Road Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	675	S	448780 128666	Site Address: Central Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SER001 EPR reference: EA/EPR/RP3395HX/S003 Operator: Serco Ltd Waste Management licence No: 10208 Annual Tonnage: 0.0	Issue Date: 13/12/1999 Effective Date: - Modified: 18/05/2001 Surrendered Date: 20/06/2016 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Serco Ltd - Bar End Road Correspondence Address: -
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: EA/EPR/JP3895HK/V002 Operator: Hopkins Recycling Ltd Waste Management licence No: 10248 Annual Tonnage: 8760.0	Issue Date: 09/12/2004 Effective Date: - Modified: 10/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Winchester H W R C Correspondence Address: -
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Winchester, Hampshire, SO23 9PB Type: - Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hampshire County Council Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Winchester H W R C Correspondence Address: The Castle, Winchester, Hampshire, SO23 8UD
Not shown	948	S	448792 128385	Site Address: Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hopkins Recycling Ltd Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: H W R C Winchester Correspondence Address: Unit 10 Bridge Farm, Curbridge, Botley, Southampton, Hampshire, SO30 2HB
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Winchester, Hampshire, SO23 9NP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hampshire County Council Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Winchester H W R C Correspondence Address: The Castle, Winchester, Hampshire, SO23 8UD
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VES036 EPR reference: EA/EPR/DB3903HF/T001 Operator: Veolia E S Hampshire Ltd Waste Management licence No: 10248 Annual Tonnage: 8760.0	Issue Date: 09/12/2004 Effective Date: 25/03/2016 Modified: 10/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Winchester H W R C Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	958	S	448638 128349	Site Address: Unit E, Bar End Industrial Estate, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAN003 EPR reference: - Operator: Cannon Hygiene Ltd Waste Management licence No: 10270 Annual Tonnage: 0.0	Issue Date: 06/09/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Transfer Station At Unit E, Bar End Industrial Estate Correspondence Address: Northgate House, Northgate, White Lund, Morecambe, Lancashire, LA3 3BJ
Not shown	958	S	448638 128349	Site Address: Unit E, Bar End Industrial Estate, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAN003 EPR reference: EA/EPR/PP3898HD/A001 Operator: Cannon Hygiene Ltd Waste Management licence No: 10270 Annual Tonnage: 5000.0	Issue Date: 06/09/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Cannon Hygiene, Winchester Correspondence Address: -
Not shown	958	S	448638 128349	Site Address: Unit E Bar End Ind Est, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: OCS024 EPR reference: EA/EPR/NB3034RA/T001 Operator: O C S Group U K Limited Waste Management licence No: 10270 Annual Tonnage: 5000.0	Issue Date: 06/09/2006 Effective Date: 10/01/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Winchester Site Correspondence Address: -
Not shown	1227	S	448000 128200	Site Address: Garnier Road, Winchester, Hampshire, SO23 9QG Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOP007 EPR reference: EA/EPR/MP3092HZ/S002 Operator: Hopkins Recycling Ltd Waste Management licence No: 19843 Annual Tonnage: 7000.0	Issue Date: 11/08/1997 Effective Date: - Modified: - Surrendered Date: 04/03/2005 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: H W R C At Garnier Road Correspondence Address: -
Not shown	1333	SE	449360 128240	Site Address: Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DEP001 EPR reference: - Operator: Department Of Transport Waste Management licence No: 19863 Annual Tonnage: 0.0	Issue Date: 23/08/1993 Effective Date: - Modified: - Surrendered Date: 10/12/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Land At Morestead Waste Water Treatment Works Correspondence Address: South Eastern Construction, Federated House, London Road, Dorking, Surrey, RH4 1SZ

ID	Distance (m)	Direction	NGR	Details	
Not shown	1333	SE	449360 128240	Site Address: Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DEP001 EPR reference: EA/EPR/XP3392HX/S002 Operator: Department Of Transport Waste Management licence No: 19863 Annual Tonnage: 150000.0	Issue Date: 23/08/1993 Effective Date: - Modified: - Surrendered Date: 10/12/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Land At Morestead Waste Water Treatment Works Correspondence Address: -

4. Current Land Use Map



Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 31

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Fone World	448355 129414	150, High Street, Winchester, SO23 9AY	Radar and Telecommunications Equipment	Industrial Products
2	0	On Site	Warehouse	448412 129418	SO23	Container and Storage	Transport, Storage and Delivery
3	0	On Site	Electricity Sub Station	448545 129487	SO23	Electrical Features	Infrastructure and Facilities
4	0	On Site	Electricity Sub Station	448370 129425	SO23	Electrical Features	Infrastructure and Facilities
5	0	On Site	Bus Station	448451 129440	SO23	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
6	0	On Site	Tank	448477 129431	SO23	Tanks (Generic)	Industrial Features
7	0	On Site	Boots Hearingcare	448316 129423	144, High Street, Winchester, SO23 9AY	Disability and Mobility Equipment	Consumer Products
8	0	On Site	Winchester Shop Mobility	448306 129516	Upper Parking Level, The Brooks, Winchester, SO23 8QY	Disability and Mobility Equipment	Consumer Products
9	1	W	Hampshire Chronicle	448221 129506	5, Upper Brook Street, Winchester, SO23 8AL	Published Goods	Industrial Products
10	5	W	Telephone Exchange	448245 129588	SO23	Telecommunications Features	Infrastructure and Facilities
11	5	S	Winchester Photographic	448251 129469	St. Georges Street, Winchester, SO23 8AH	Photographic and Optical Equipment	Household, Office, Leisure and Garden
12	20	E	Electricity Sub Station	448462 129605	SO23	Electrical Features	Infrastructure and Facilities
13	36	N	Tank	448308 129613	SO23	Tanks (Generic)	Industrial Features
14	40	W	Amplifon	448187 129528	58, St. Georges Street, Winchester, SO23 8AH	Disability and Mobility Equipment	Consumer Products
15	54	W	Winchester Hearing Ltd	448193 129587	68, Parchment Street, Winchester, SO23 8AT	Disability and Mobility Equipment	Consumer Products
16A	83	W	The Clock Work Shop	448150 129551	6a, Parchment Street, Winchester, SO23 8AT	Jewellery, Gems, Clocks and Watches	Consumer Products
17	83	NW	R J M	448178 129634	Kingdons Yard, Parchment Street, Winchester, SO23 8AT	Civil Engineers	Engineering Services
18A	100	W	D & G Hardware	448130 129544	42-44, St. Georges Street, Winchester, SO23 8BE	General Construction Supplies	Industrial Products

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
19	108	E	Electricity Sub Station	448663 129283	SO23	Electrical Features	Infrastructure and Facilities
20	114	W	Habels	448114 129545	38-40, St. Georges Street, Winchester, SO23 8BE	Beds and Bedding	Consumer Products
21	117	NW	Electricity Sub Station	448158 129665	SO23	Electrical Features	Infrastructure and Facilities
22	122	SW	Dinghams	448136 129393	4, The Square, Winchester, SO23 9ES	Fireplaces and Mantelpieces	Consumer Products
23	137	E	Electricity Sub Station	448691 129275	SO23	Electrical Features	Infrastructure and Facilities
24	155	W	Renews Ltd	448073 129551	St. Georges House 18, St. Georges Street, Winchester, SO23 8BG	Published Goods	Industrial Products
25	182	NE	Electricity Sub Station	448533 129759	SO23	Electrical Features	Infrastructure and Facilities
26	185	W	Electricity Sub Station	448059 129596	SO23	Electrical Features	Infrastructure and Facilities
27	186	W	Electricity Sub Station	448037 129429	SO23	Electrical Features	Infrastructure and Facilities
28B	187	SE	Electricity Sub Station	448663 129150	SO23	Electrical Features	Infrastructure and Facilities
29B	196	SE	Kwik-Fit (GB) Limited	448652 129132	32-34, Chesil Street, Winchester, SO23 0HX	Vehicle Repair, Testing and Servicing	Repair and Servicing
30	216	W	Copyman & the Copying Centre Ltd	448036 129629	41-43, Jewry Street, Winchester, SO23 8RY	Published Goods	Industrial Products
31	229	NW	Electricity Sub Station	448113 129777	SO23	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
32	440	NW	447949 129914	Obsolete	A H F Auto, Swan Lane, Swan Lane, Winchester, Hampshire, SO23 8SG	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

---

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

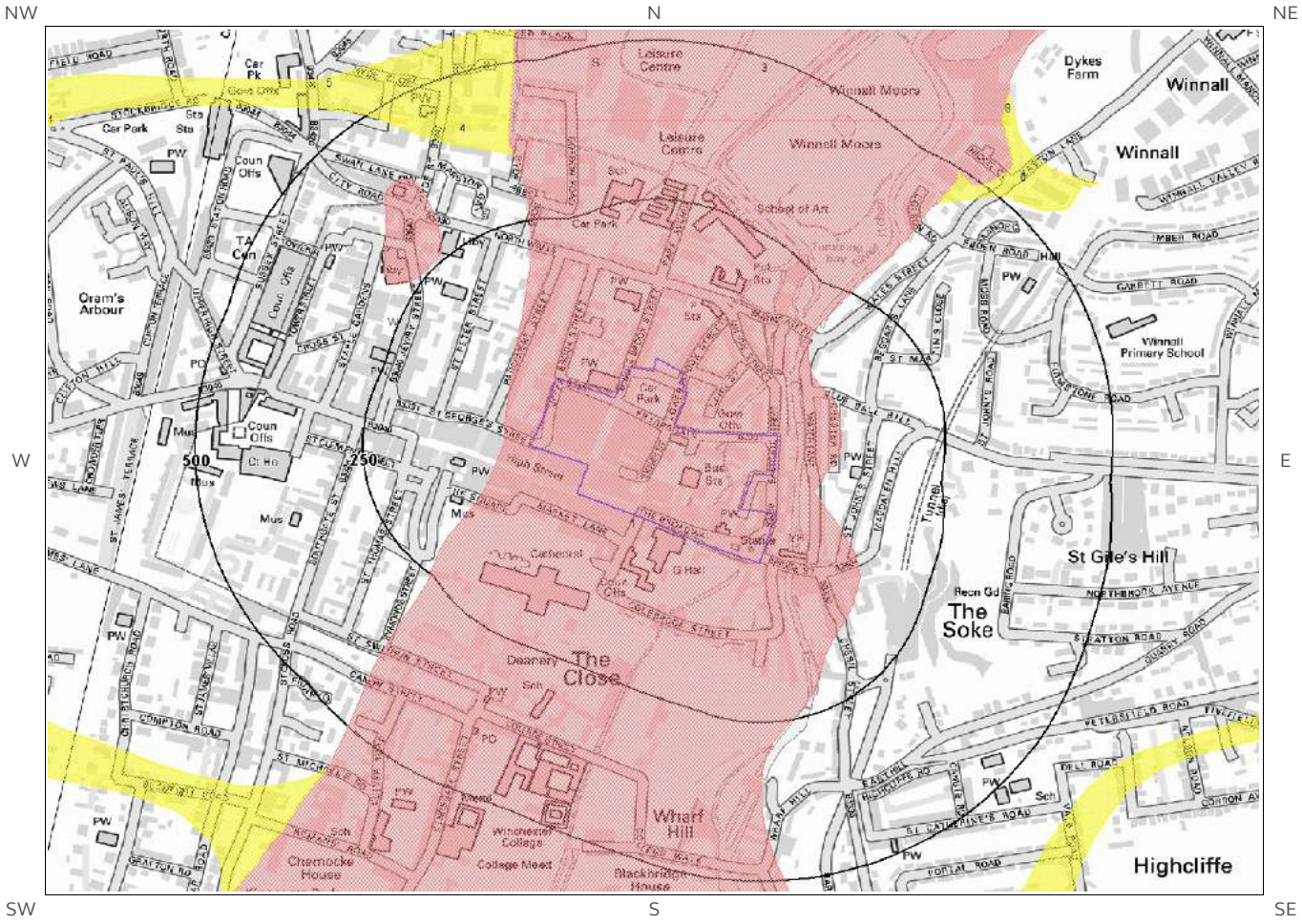
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LECH-CHLK	LEWES NODULAR CHALK FORMATION	CHALK
NPCH-CHLK	NEW PIT CHALK FORMATION	CHALK

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses

Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

Secondary Aquifer - Undifferentiated Layers

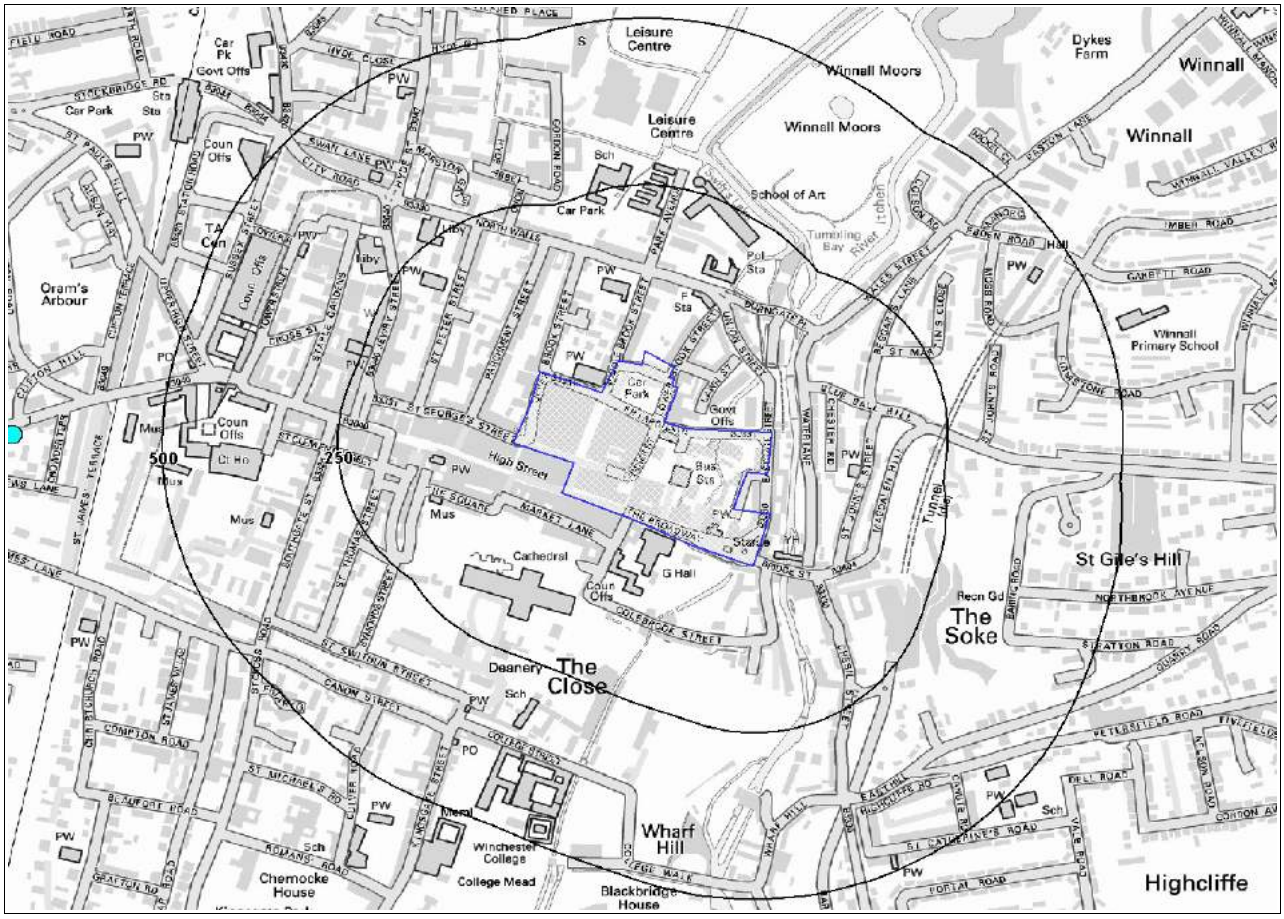
Unproductive

Unknown (lakes and landslip)

Surface Water Abstraction Licence

6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

NW N NE



W E

SW S SE

Site Outline

250 Search Buffers (m)
500

Source Protection Zone 1 - Inner Catchment

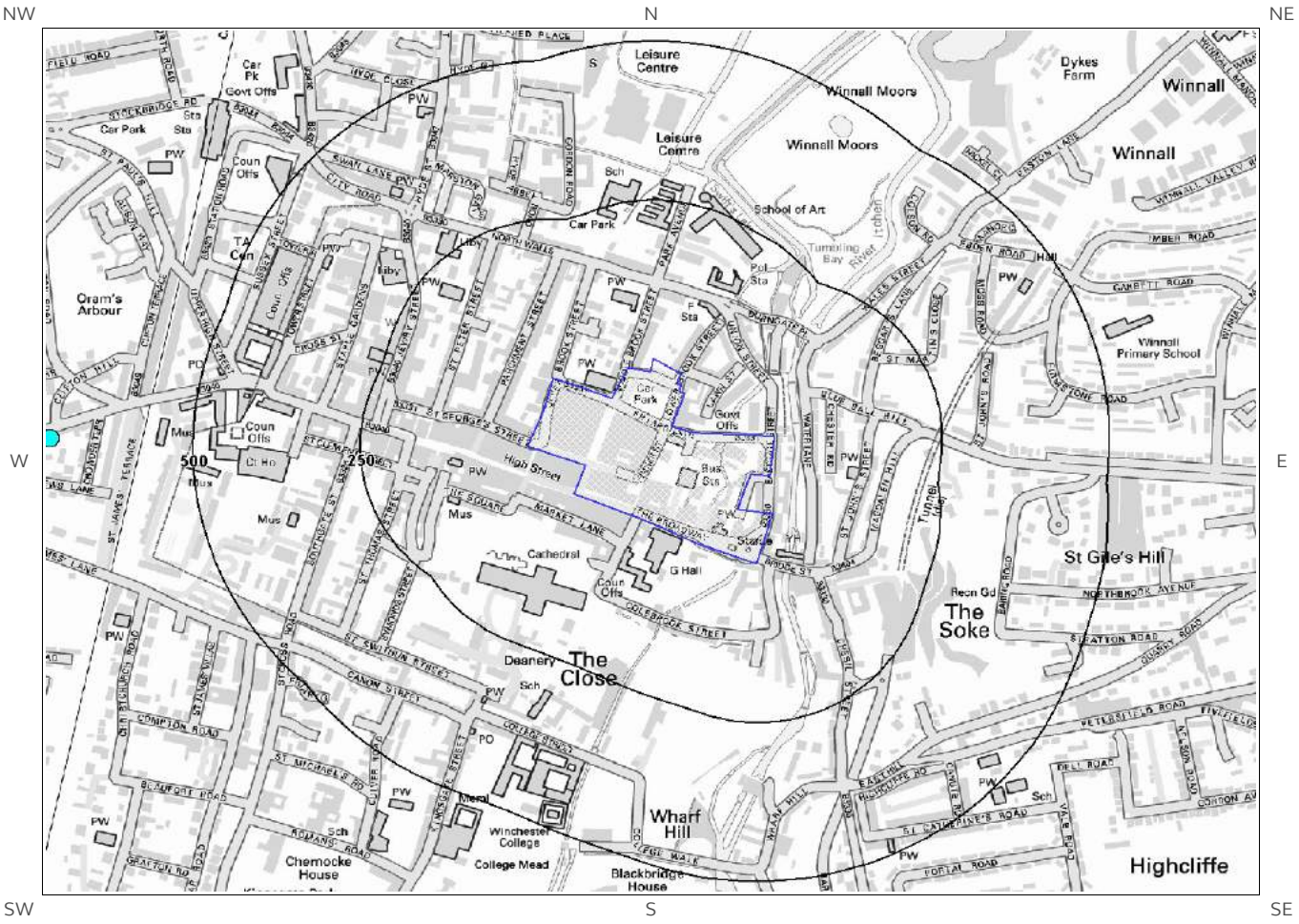
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



Site Outline

250 Search Buffers (m)
500

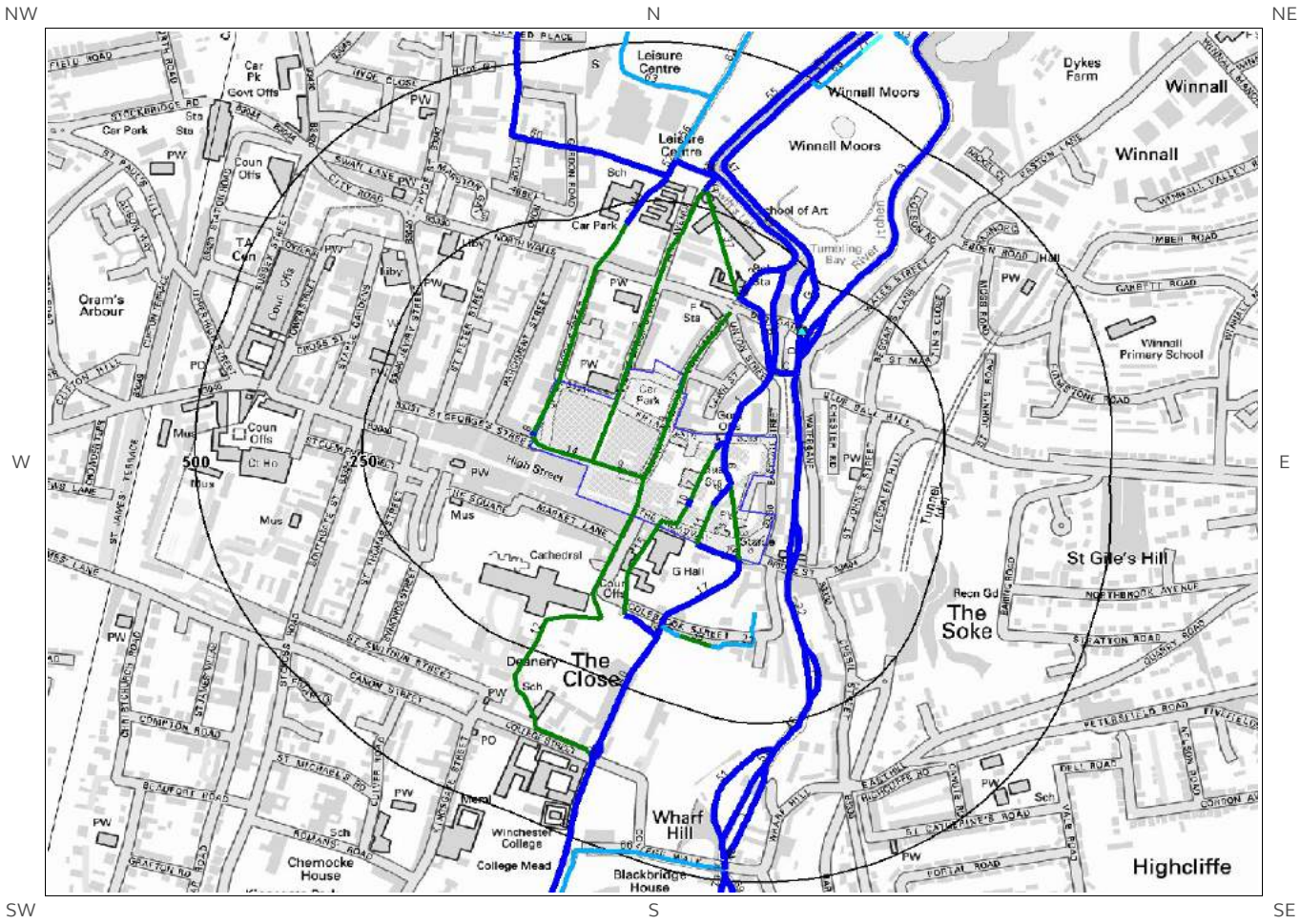
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Detailed River Network and River Quality



Site Outline

250
500
Search Buffers (m)

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	257	NW	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
4	358	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
3	375	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	411	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	439	NE	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	375	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
3	262	NE	448570 129830	Status: Historical Licence No: 11/42/22.6/78 Details: Laundry Use Direct Source: Southern Region Groundwater Point: Winchester Laundry, Hyde Abbey Road Data Type: Point Name: Brian Hampson & Paul Hampson & Sheila Lemon	Annual Volume (m^3): 38000 Max Daily Volume (m^3): 145 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 30/1/2003 Version End Date:
4	714	W	447500 129500	Status: Historical Licence No: 11/42/22.4/80 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: Itchen Valley Point B Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 6637160 Max Daily Volume (m^3): 27276 Original Application No: NPS/WR/019021 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/4/2015 Version End Date:
Not shown	1180	SW	447980 128260	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point B At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1180	SW	447980 128260	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point B At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1211	SW	447950 128240	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point A At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1211	SW	447950 128240	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point A At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1213	SW	447990 128220	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point C At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1213	SW	447990 128220	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point C At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1264	S	448110 128120	Status: Historical Licence No: 31/105 Details: Fish Farm/Cress Pond Throughflow Direct Source: Southern Region Groundwater Point: Point A, Borehole At Garnier Road Data Type: Point Name: Winchester College	Annual Volume (m^3): 32760 Max Daily Volume (m^3): 120 Original Application No: 169/0027H Original Start Date: 12/2/2008 Expiry Date: 12/2/2012 Issue No: 1 Version Start Date: 12/2/2008 Version End Date:
Not shown	1268	S	448113 128115	Status: Historical Licence No: SO/042/0031/019 Details: Fish Farm/Cress Pond Throughflow Direct Source: Southern Region Groundwater Point: Point A, Borehole At Garnier Road Data Type: Point Name: Winchester College	Annual Volume (m^3): 32760 Max Daily Volume (m^3): 120 Original Application No: NPS/WR/009538 Original Start Date: 17/2/2012 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 17/2/2012 Version End Date:
Not shown	1780	NE	449900 130700	Status: Historical Licence No: 31/094 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Shoulder Of Mutton Farm, Kingsworthy Data Type: Point Name: Rosewell	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: 169/1388 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/5/1994 Version End Date:
Not shown	1780	NE	449900 130700	Status: Historical Licence No: 31/095 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Point A At Patchings, Easton Data Type: Point Name: Poole	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: 169/1389 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/5/1994 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
1	714	W	447500 129500	Status: Historical Licence No: 11/42/22.4/80 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: Itchen Valley Point B Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 6637160 Max Daily Volume (m^3): 27276 Original Application No: NPS/WR/019021 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
375	N	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
461	NE	Major Aquifer/Intermediate Leaching Potential	I2	Soils which can possibly transmit non – or weakly adsorbed pollutants and liquid discharges but are unlikely to transmit adsorbed pollutants.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
140D	171	N	448620 129670	River Name: Itchen Reach: Durngate Mill - U/s Itchen Abbas F.f. End/Start of Stretch: End of Stretch NGR	A	A	A	A	A
141D	171	N	448620 129670	River Name: Itchen Reach: Itchen Navigation Conf - Durngate Mill End/Start of Stretch: Start of Stretch NGR	A	A	A	A	A

6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
142D	171	N	448620 129670	River Name: R. Itchen Reach: Itchen Navigation Conf - Durngate Mill End/Start of Stretch: Start of Stretch NGR	A	A	A	A	A

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
2	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
3	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
4	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
5	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
6	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
7	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
8	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
9	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
10	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
11	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
12	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
13	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
14	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
15	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
16	1	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
17	5	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
18	5	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
19	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
20A	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
21A	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
22	45	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
23	75	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
24C	102	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
25B	103	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
26B	103	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
27C	104	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
28D	128	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
29D	128	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
30D	128	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
31E	141	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
32E	141	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
33	145	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
34	147	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
35F	147	SE	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
36F	147	SE	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
37	148	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
38	148	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
39	149	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
40	158	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
41G	182	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
42G	182	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
43	203	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
44	218	N	River Name: Upper Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
45	226	NE	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
46	226	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
47	254	NE	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
48H	277	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
49H	280	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
50	291	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
51	291	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
52	292	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
53	292	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
54	302	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
55	302	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
56	315	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
57I	315	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
58I	315	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
59J	346	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
60J	346	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
61	372	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
62	421	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
63	421	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
64	438	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
65K	467	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
66	481	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
67K	483	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
68	493	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
69	493	S	River Name: The Itchen Navigation Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
70	493	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
71	496	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
1	N
3	S
20	S
24	E
40	E
92	N
145	NE
172	SW
184	N
217	N

7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)

NW N NE

W E

SW S SE

Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

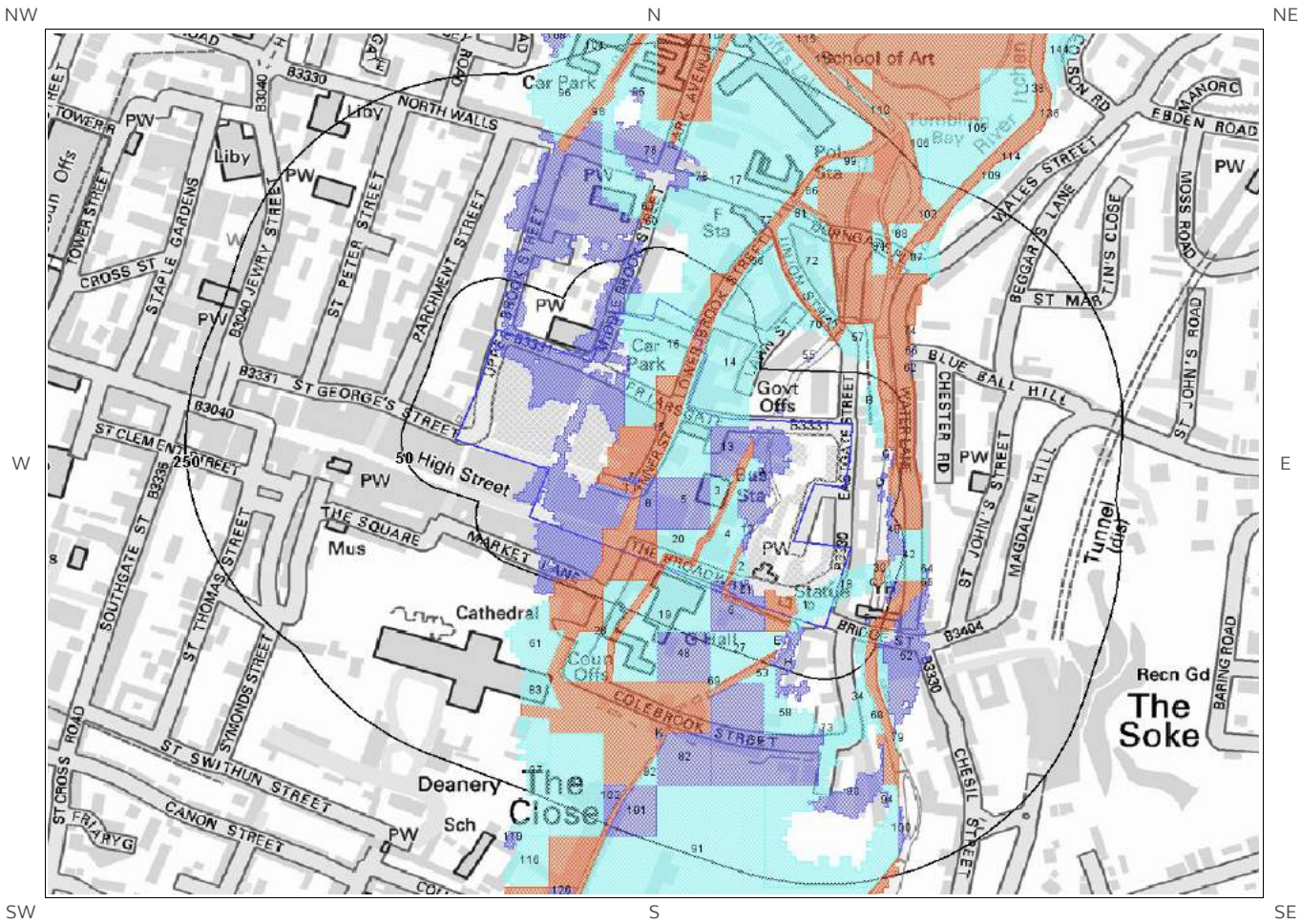
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? Yes

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
2B	8	N	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
3A	30	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
4C	30	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
5A	31	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
6A	31	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
7D	33	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
8F	59	N	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? Yes

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 3 - (Fluvial Models)
2B	8	N	09-Sep-2016	Zone 3 - (Fluvial Models)
3A	26	E	09-Sep-2016	Zone 3 - (Fluvial Models)
4C	30	E	09-Sep-2016	Zone 3 - (Fluvial Models)

5A	30	E	09-Sep-2016	Zone 3 - (Fluvial Models)
6A	31	E	09-Sep-2016	Zone 3 - (Fluvial Models)
7D	31	E	09-Sep-2016	Zone 3 - (Fluvial Models)
8F	33	E	09-Sep-2016	Zone 3 - (Fluvial Models)
	33	E	09-Sep-2016	Zone 3 - (Fluvial Models)
	41	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	48	NE	09-Sep-2016	Zone 3 - (Fluvial Models)
	50	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	57	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	59	N	09-Sep-2016	Zone 3 - (Fluvial Models)
	60	NE	09-Sep-2016	Zone 3 - (Fluvial Models)
	65	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	68	N	09-Sep-2016	Zone 3 - (Fluvial Models)
	113	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	118	N	09-Sep-2016	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? High

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a High (1 in 30 or greater) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Low
2	0.0	On Site	Low
3	0.0	On Site	Low
4	0.0	On Site	Low
5	0.0	On Site	Medium
6	0.0	On Site	Medium

7	0.0	On Site	Medium
8	0.0	On Site	Medium
9	0.0	On Site	High
10	0.0	On Site	Medium
11A	0.0	On Site	Medium
12	0.0	On Site	High
13	0.0	On Site	Medium
14	0.0	On Site	Low
15	0.0	On Site	Medium
16	0.0	On Site	Low
17	0.0	On Site	Low
18	0.0	On Site	Low
19	0.0	On Site	Low
20	0.0	On Site	Low
21	0.0	On Site	Medium
22	0.0	On Site	High
23A	0.0	On Site	Low
24H	6.0	S	Medium
25	8.0	N	Medium
26B	13.0	E	Low
27	15.0	S	Low
28	16.0	SW	Low
29B	18.0	E	Low
30	26.0	E	High
31E	27.0	S	Medium
32D	30.0	E	Medium
33C	30.0	E	Medium
34	30.0	E	Low
35G	30.0	E	Medium
36C	30.0	E	High
37D	31.0	E	Medium
38D	31.0	E	Medium
39F	33.0	E	Medium
40	33.0	E	Medium
41E	35.0	S	Medium
42	36.0	E	Low
43F	37.0	E	Low
44I	37.0	E	Low
45G	37.0	E	Medium
46J	38.0	E	High
47G	38.0	E	Medium
48	39.0	SW	Medium
49H	42.0	S	Medium
50I	43.0	E	Medium
51J	47.0	E	Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

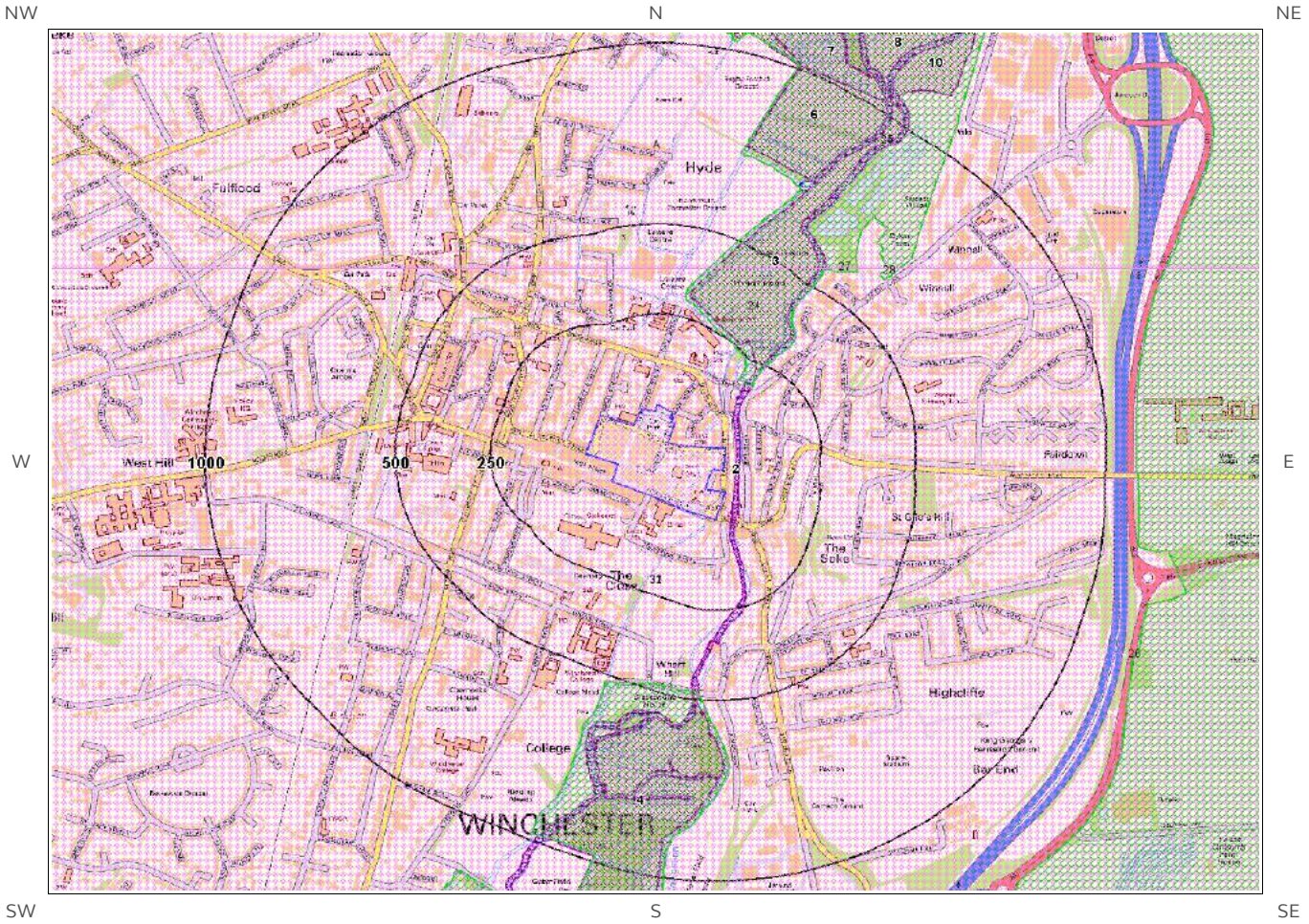
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?	High

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



Site Outline

100
250
Search Buffers (m)

AONB
National Park
SSSI
Special Protection Areas
Nitrate Vulnerable Zones
Green Belt
Environmentally Sensitive Areas
Special Areas of Conservation
World Heritage Sites
Nitrate Sensitive Areas
Ancient Woodland
National Nature Reserve
Local Nature Reserves
Ramsar Sites

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

22

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
2	24	E	River Itchen	Natural England
3	220	N	River Itchen	Natural England
4	517	S	River Itchen	Natural England
5	522	S	River Itchen	Natural England
6	739	NE	River Itchen	Natural England
7	1009	NE	River Itchen	Natural England
8	1031	NE	River Itchen	Natural England
9	1034	N	River Itchen	Natural England
10	1059	NE	River Itchen	Natural England
Not shown	1208	S	River Itchen	Natural England
Not shown	1244	S	River Itchen	Natural England
Not shown	1266	S	River Itchen	Natural England
Not shown	1297	NE	River Itchen	Natural England
Not shown	1370	S	St. Catherine's Hill	Natural England
Not shown	1520	N	River Itchen	Natural England
Not shown	1606	S	St. Catherine's Hill	Natural England
Not shown	1615	S	St. Catherine's Hill	Natural England
Not shown	1630	SW	River Itchen	Natural England
Not shown	1767	S	River Itchen	Natural England
Not shown	1769	S	River Itchen	Natural England

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1872	N	River Itchen	Natural England
Not shown	1952	NE	River Itchen	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

1

The following Special Area of Conservation (SAC) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SAC Name	Data Source
1	24	E	River Itchen	Natural England

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

7

The following National Park records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NP Name	Data Source
24	184	N	South Downs	Natural England
25	398	N	South Downs	Natural England
26	477	S	South Downs	Natural England
27	562	NE	South Downs	Natural England
28	625	NE	South Downs	Natural England
Not shown	1418	E	South Downs	Natural England
Not shown	1503	E	South Downs	Natural England

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

8

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
31	0	On Site	Existing	DEFRA
32	0	On Site	Existing	DEFRA
33A	375	N	Existing	DEFRA
34A	375	N	Existing	DEFRA
Not shown	1418	E	Existing	DEFRA
Not shown	1418	E	Existing	DEFRA
Not shown	1503	E	Existing	DEFRA
Not shown	1503	E	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell*[*] hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand*[*] hazard rating identified on the study site? Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

* This indicates an automatically generated 50m buffer and site.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
40.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

Past underground mine workings are uncommon, localised and of limited area. The rock types present in this area are such that minor mineral veins may be present within them on which it is possible that there have been attempts to work these by underground methods and/or it is possible that small scale underground extraction of other materials may have occurred. All such occurrences are likely to be restricted in size and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

RPS

R P S PLANNING & DEVELOPMENT,2420 THE QUADRANT, AZTEC WEST,
BRISTOL, BS32 4AQ

Groundsure Reference:	RPS-3539598
Your Reference:	JER1070_-_Central_Winchester_
Report Date	22 Dec 2016
Report Delivery Method:	Email - pdf

Groundsure Enviro Insight

Address: WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Groundsure Enviro Insight

Address:	**WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ**
Date:	**22 Dec 2016**
Reference:	**RPS-3539598**
Client:	**RPS**

NW N NE

W E

SW S SE

Aerial Photograph Capture date: 04-Jun-2013
Grid Reference: 448396,129496
Site Size: 6.12ha

Report Reference: RPS-3539598
Client Reference: JER1070_-_Central_Winchester_

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	11	2	57	113
1.2 Additional Information – Historical Tank Database	9	8	40	38
1.3 Additional Information – Historical Energy Features Database	7	7	35	66
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	4	41	64
1.6 Potentially Infilled Land	2	0	25	51

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	1	0	2
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	4	6	1	13
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	1	0	2	1
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	1	3	4
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	1	2
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	2	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	11	3

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	8	6	17	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	1	1	10
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	2	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	No	Yes	No	No	No
6.10 Detailed River Network entries within 500m of the site	15	7	24	25	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	High
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	High

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	1	1	0	3	17
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	1	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	1	2	2	2
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	2	0	0	2	0	4
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Very Low
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

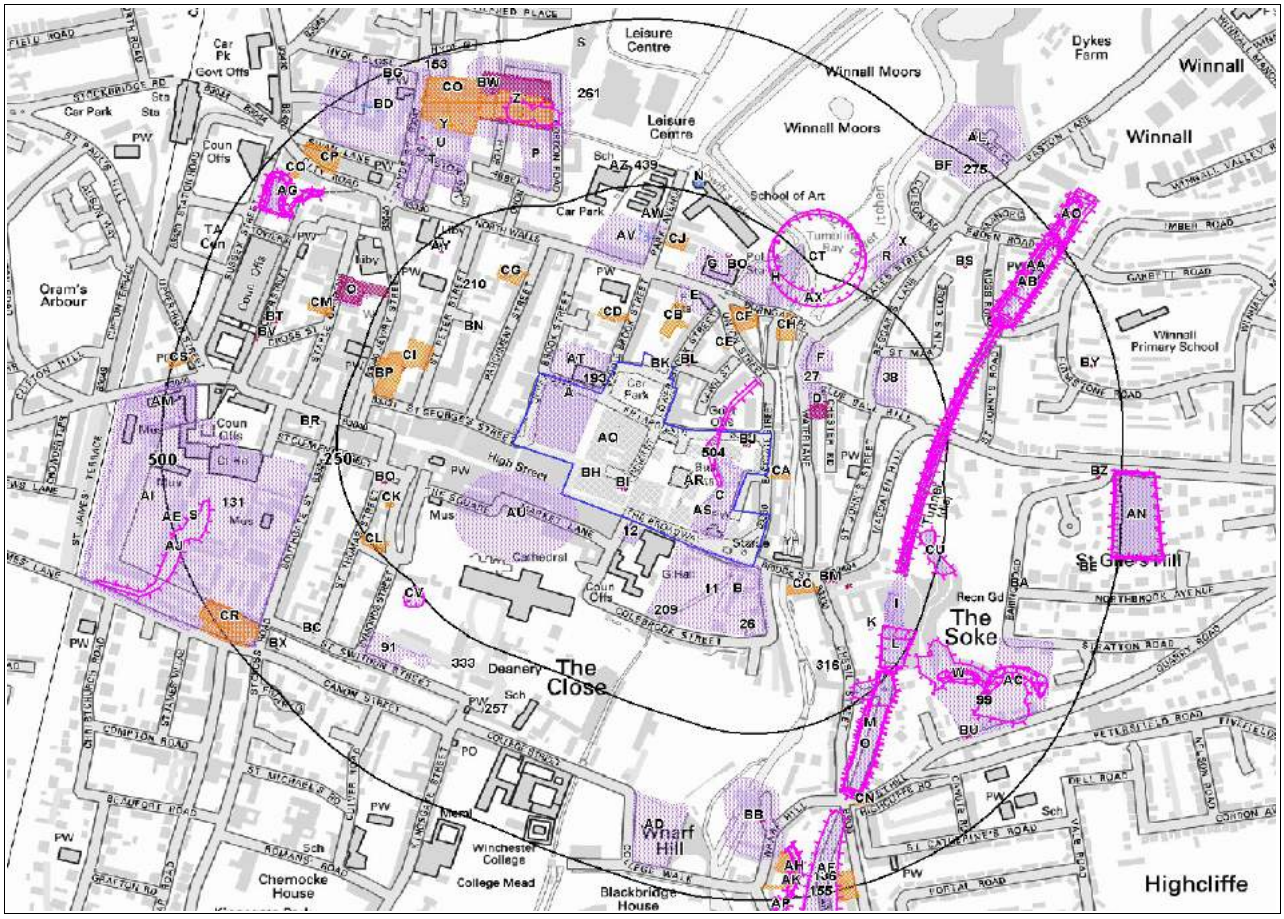
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use

NW N NE

W E

SW S SE



Site Outline

250 / 500 Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 183

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Telecomm Exchange	1989
2A	0	On Site	Telecomm Exchange	1981
3AU	0	On Site	Unspecified Yard	1869
4B	0	On Site	Hospital	1898
5B	0	On Site	Hospital	1898
6C	0	On Site	Hospital	1898
7B	0	On Site	Hospital	1895
8C	0	On Site	Hospital	1869
9C	0	On Site	Hospital	1895
10C	0	On Site	Hospital	1898
11	0	On Site	Hospital	1989
12	6	S	Police Station	1869
13B	8	S	Hospital	1869
14D	57	NE	Unspecified Commercial/Industrial	1895
15D	57	NE	Unspecified Commercial/Industrial	1931
16D	57	NE	Unspecified Commercial/Industrial	1938
17D	57	NE	Unspecified Commercial/Industrial	1908
18D	64	NE	Gasometer	1869
19D	66	NE	Unspecified Tank	1898
20D	66	NE	Unspecified Tank	1898
21D	67	NE	Unspecified Tank	1957
22D	67	NE	Unspecified Tank	1931
23D	67	NE	Unspecified Tank	1895
24D	67	NE	Unspecified Tank	1938
25D	67	NE	Unspecified Tank	1908
26	79	S	Unspecified Mill	1869
27	82	NE	Hospital	1869
28E	87	NE	Fire Station	1989
29E	87	NE	Fire Station	1981
30F	105	NE	Hospital	1898
31F	105	NE	Hospital	1898
32F	106	NE	Hospital	1895

33AV	126	N	Nursery	1869
34G	130	NE	Police Station	1989
35G	130	NE	Police Station	1981
36H	144	NE	Unspecified Works	1968
37H	144	NE	Unspecified Works	1957
38	152	E	Hospital	1908
39K	183	SE	Brewery	1869
40I	193	E	Railway Station	1898
41I	193	E	Railway Station	1898
42J	194	E	Tunnel	1898
43J	194	E	Tunnel	1898
44K	195	E	Railway Station	1908
45I	195	E	Railway Station	1931
46I	196	E	Railway Station	1895
47I	196	E	Railway Station	1938
48J	197	E	Tunnel	1938
49J	197	E	Tunnel	1931
50J	197	E	Tunnel	1908
51J	197	E	Tunnel	1895
52J	197	E	Tunnel	1989
53J	197	E	Tunnel	1957
54J	197	E	Tunnel	1981
55J	197	E	Tunnel	1968
56I	198	E	Railway Station	1957
57L	205	SE	Cuttings	1938
58L	205	SE	Cuttings	1895
59L	205	SE	Cuttings	1908
60L	205	SE	Cuttings	1931
61L	212	SE	Cuttings	1898
62L	212	SE	Cuttings	1898
63L	214	SE	Railway Buildings	1895
64CU	216	E	Unspecified Ground Workings	1869
65M	226	SE	Cuttings	1908
66M	238	SE	Cuttings	1895
67M	238	SE	Cuttings	1938
68M	241	SE	Cuttings	1931
69CV	246	SW	Unspecified Heap	1869
70M	247	SE	Railway Sidings	1908
71N	262	N	Unspecified Tank	1989
72N	262	N	Unspecified Tank	1981
73O	262	SE	Cuttings	1898
74O	262	SE	Cuttings	1898
75Q	266	NW	Gas Works	1869
76P	270	N	Laundry	1898
77P	270	N	Laundry	1898

78V	270	SE	Unspecified Ground Workings	1869
79P	271	N	Laundry	1895
80R	279	NE	Brewery	1895
81Q	280	W	Gasometer	1869
82R	289	NE	Brewery	1869
83S	290	W	Barracks	1938
84S	290	W	Barracks	1895
85T	295	NW	Brewery	1898
86T	295	NW	Brewery	1898
87U	296	N	Unspecified Commercial/Industrial	1968
88U	296	N	Unspecified Commercial/Industrial	1989
89U	296	N	Unspecified Commercial/Industrial	1981
90Y	297	N	Brewery	1895
91	307	SW	Hospital	1869
92V	309	SE	Unspecified Ground Workings	1938
93W	309	SE	Unspecified Pit	1908
94W	309	SE	Unspecified Pit	1931
95S	309	W	Barracks	1908
96S	309	W	Barracks	1931
97S	314	W	Barracks	1869
98BB	315	S	Corn Mills	1869
99	317	SE	Lime Works	1869
100X	326	NE	Brewery	1898
101X	326	NE	Brewery	1898
102T	331	NW	Brewery	1869
103Z	332	N	Electricity Light and Power Station	1908
104Y	337	N	Brewery	1869
105Z	357	N	Unspecified Commercial/Industrial	1931
106AA	358	NE	Cuttings	1898
107AA	358	NE	Cuttings	1898
108AB	361	NE	Cuttings	1989
109AB	361	NE	Cuttings	1957
110AB	361	NE	Cuttings	1981
111AB	361	NE	Cuttings	1968
112AC	366	E	Lime Works	1898
113AC	366	E	Lime Works	1898
114AD	367	S	Nursery	1938
115AB	368	NE	Cuttings	1931
116AC	369	E	Lime Works	1895
117AD	369	S	Nursery	1931
118BD	370	NW	Malthouse Mill	1869

119AA	370	NE	Cuttings	1895
120AA	370	NE	Cuttings	1938
121AC	374	SE	Unspecified Ground Workings	1898
122AC	374	SE	Unspecified Ground Workings	1898
123AE	375	W	Barracks	1898
124AE	375	W	Barracks	1898
125AC	376	SE	Unspecified Pit	1938
126AC	376	SE	Unspecified Quarry	1895
127AF	384	S	Cuttings	1908
128AF	384	S	Cuttings	1895
129AF	384	S	Cuttings	1931
130AF	384	S	Cuttings	1938
131	403	W	Unspecified Tank	1869
132AA	404	NE	Cuttings	1908
133AG	407	NW	Unspecified Ground Workings	1895
134AG	408	NW	Unspecified Ground Workings	1898
135AG	408	NW	Unspecified Ground Workings	1898
136	409	S	Railway Sidings	1957
137AK	420	S	Unspecified Ground Workings	1938
138AH	423	S	Unspecified Ground Workings	1931
139AH	423	S	Unspecified Ground Workings	1908
140AG	424	NW	Unspecified Pit	1898
141AG	424	NW	Unspecified Pit	1898
142AI	426	W	Barracks	1968
143AI	426	W	Barracks	1981
144AI	426	W	Barracks	1957
145AI	426	W	Barracks	1989
146AF	427	S	Railway Sidings	1938
147AF	427	S	Railway Sidings	1895
148AG	430	NW	Unspecified Pit	1869
149AJ	441	W	Unspecified Ground Workings	1898
150AJ	441	W	Unspecified Ground Workings	1898
151AF	441	S	Railway Sidings	1898
152AF	441	S	Railway Sidings	1898
153	457	N	Malthouse Mill	1869
154AK	462	S	Railway Sidings	1931
155	462	S	Railway Sidings	1908
156AL	465	NE	Unspecified Works	1981
157AL	465	NE	Unspecified Works	1989

158AM	471	W	Hospital	1895
159AM	473	W	Hospital	1898
160AM	473	W	Hospital	1898
161AM	474	W	Hospital	1869
162AN	487	E	Cemetery	1989
163AN	487	E	Cemetery	1957
164AN	487	E	Cemetery	1981
165AN	487	E	Cemetery	1968
166AN	488	E	Cemetery	1938
167AN	488	E	Cemetery	1908
168AN	488	E	Cemetery	1931
169AF	490	S	Railway Building	1898
170AF	490	S	Railway Building	1898
171AF	491	S	Railway Building	1957
172AF	491	S	Railway Building	1895
173AF	491	S	Railway Building	1908
174AF	491	S	Railway Building	1931
175AF	491	S	Railway Building	1938
176AO	494	NE	Cuttings	1957
177AO	494	NE	Cuttings	1968
178AO	497	NE	Cuttings	1895
179AO	498	NE	Cuttings	1931
180AO	498	NE	Cuttings	1908
181AO	498	NE	Cuttings	1938
182AP	499	S	Unspecified Ground Workings	1908
183AP	499	S	Unspecified Ground Workings	1931

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 95

ID	Distance (m)	Direction	Use	Date
184BH	0	On Site	Tank or Trough	1871
185AQ	0	On Site	Pump and Tank	1871
186AQ	0	On Site	Pump and Tank	1871
187BK	0	On Site	Tank or Trough	1871
188AR	0	On Site	Unspecified Tank	1994
189AS	0	On Site	Unspecified Tank	1975
190AR	0	On Site	Unspecified Tank	1985

191AR	0	On Site	Unspecified Tank	1975
192AS	0	On Site	Unspecified Tank	1985
193	11	N	Tank or Trough	1871
194AT	27	N	Unspecified Tank	1994
195AT	29	N	Unspecified Tank	1973
196AT	29	N	Unspecified Tank	1985
197AT	29	N	Unspecified Tank	1991
198AT	29	N	Unspecified Tank	1988
199AT	29	N	Unspecified Tank	1991
200AT	29	N	Unspecified Tank	1988
201D	58	NE	Gasholder Station	1952
202D	66	NE	Unspecified Tank	1939
203D	66	NE	Unspecified Tank	1932
204D	66	NE	Gasometer	1871
205D	66	NE	Gasometer	1909
206D	67	NE	Gasholder	1952
207D	67	NE	Gas Holder	1952
208AU	75	SW	Pump and Tank	1871
209	107	S	Unspecified Tank	1871
210	155	NW	Unspecified Tank	1871
211AV	166	N	Tanks	1932
212AV	172	N	Tanks	1939
213AV	177	N	Tanks	1932
214AV	183	N	Tanks	1939
215AW	202	N	Unspecified Tank	1994
216AW	202	N	Unspecified Tank	1991
217AW	202	N	Unspecified Tank	1985
218AW	202	N	Unspecified Tank	1991
219AW	202	N	Unspecified Tank	1988
220AW	202	N	Unspecified Tank	1988
221AW	202	N	Unspecified Tank	1973
222AX	204	N	Unspecified Tank	1963
223AX	205	N	Unspecified Tank	1967
224AX	206	N	Unspecified Tank	1987
225AX	207	N	Unspecified Tank	1967
226AX	207	N	Unspecified Tank	1974
227BP	207	W	Tank or Trough	1871
228AY	228	NW	Tanks	1988
229AY	228	NW	Tanks	1988
230AY	228	NW	Tanks	1985
231AY	229	NW	Tanks	1965
232AY	229	NW	Tanks	1973
233AY	229	NW	Tanks	1952
234AY	229	NW	Tanks	1952
235AY	229	NW	Tanks	1960
236AY	229	NW	Tanks	1967

237AY	231	NW	Tanks	1973
238AY	231	NW	Tanks	1952
239AY	231	NW	Tanks	1965
240Q	242	NW	Gas Works	1871
241N	261	N	Unspecified Tank	1991
242N	261	N	Unspecified Tank	1991
243N	261	N	Unspecified Tank	1985
244N	261	N	Unspecified Tank	1988
245N	261	N	Unspecified Tank	1988
246N	261	N	Unspecified Tank	1967
247Q	273	W	Gas Works	1909
248AZ	275	N	Unspecified Tank	1991
249AZ	275	N	Unspecified Tank	1985
250AZ	275	N	Unspecified Tank	1988
251AZ	275	N	Unspecified Tank	1991
252AZ	275	N	Unspecified Tank	1988
253AZ	276	N	Unspecified Tank	1973
254Q	280	NW	Gasometer	1871
255N	281	N	War Tank	1932
256Q	301	NW	Tank or Trough	1871
257	339	S	Pump and Tank	1871
258BA	368	E	Unspecified Tank	1939
259BA	368	E	Unspecified Tank	1932
260BA	371	E	Unspecified Tank	1909
261	387	N	Unspecified Tank	1984
262BB	393	S	Tank or Trough	1871
263BC	399	SW	Unspecified Tank	1909
264BC	404	SW	Unspecified Tank	1932
265BD	452	NW	Tanks	1973
266BE	457	E	Unspecified Tank	1952
267BE	458	E	Unspecified Tank	1960
268BE	458	E	Unspecified Tank	1952
269BD	463	NW	Tanks	1965
270BD	463	NW	Tanks	1967
271BF	464	NE	Tanks	1987
272BF	464	NE	Tanks	1991
273BF	465	NE	Tanks	1974
274BF	465	NE	Tanks	1991
275	486	NE	Unspecified Tank	1974
276BG	489	NW	Unspecified Tank	1993
277BG	490	NW	Unspecified Tank	1984
278BG	490	NW	Unspecified Tank	1967

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 115

ID	Distance (m)	Direction	Use	Date
279BH	0	On Site	Electricity Substation	1994
280BI	0	On Site	Electricity Substation	1975
281BI	0	On Site	Electricity Substation	1985
282BJ	0	On Site	Electricity Substation	1985
283BJ	0	On Site	Electricity Substation	1988
284BJ	0	On Site	Electricity Substation	1993
285BJ	0	On Site	Electricity Substation	1989
286BK	19	E	Electricity Substation	1994
287BL	20	E	Electricity Substation	1985
288BL	20	E	Electricity Substation	1991
289BL	20	E	Electricity Substation	1988
290BL	20	E	Electricity Substation	1988
291BL	20	E	Electricity Substation	1991
292BL	20	E	Electricity Substation	1973
293D	58	NE	Gasholder Station	1952
294D	66	NE	Gasometer	1871
295D	66	NE	Gasometer	1909
296D	67	NE	Gasholder	1952
297D	67	NE	Gas Holder	1952
298BM	104	E	Electricity Substation	1988
299BM	104	E	Electricity Substation	1985
300BM	104	E	Electricity Substation	1989
301BN	111	NW	Electricity Substation	1988
302BN	111	NW	Electricity Substation	1988
303BN	111	NW	Electricity Substation	1991
304BN	111	NW	Electricity Substation	1985
305BN	111	NW	Electricity Substation	1994
306BN	112	NW	Electricity Substation	1973
307BM	114	E	Electricity Substation	1993
308BM	133	E	Electricity Substation	1993
309BM	135	E	Electricity Substation	1988
310BM	135	E	Electricity Substation	1985
311BM	135	E	Electricity Substation	1989
312BO	173	NE	Electricity Substation	1974
313BO	173	NE	Electricity Substation	1991
314G	181	NE	Electricity Substation	1987
315BP	184	W	Electricity Substation	1994

316	184	SE	Electricity Substation	1993
317BP	186	W	Electricity Substation	1988
318BP	186	W	Electricity Substation	1991
319BP	186	W	Electricity Substation	1991
320BP	186	W	Electricity Substation	1988
321BQ	186	W	Electricity Substation	1985
322BQ	186	W	Electricity Substation	1975
323BQ	187	W	Electricity Substation	1994
324AY	226	NW	Electricity Substation	1991
325AY	226	NW	Electricity Substation	1994
326AY	227	NW	Electricity Substation	1991
327Q	242	NW	Gas Works	1871
328Q	273	W	Gas Works	1909
329Q	280	NW	Gasometer	1871
330BR	288	W	Electricity Substation	1987
331BR	288	W	Electricity Substation	1993
332BR	288	W	Electricity Substation	1991
333	292	SW	Electricity Substation	1994
334Z	357	N	Electricity Light and Power Station	1909
335Z	359	N	Electricity Works	1952
336BS	369	NE	Electricity Substation	1987
337BS	370	NE	Electricity Substation	1974
338BS	370	NE	Electricity Substation	1991
339BB	377	S	Electricity Substation	1995
340BB	377	S	Electricity Substation	1995
341Z	377	N	Electricity Works	1952
342BT	378	W	Electricity Substation	1993
343BB	378	S	Electricity Substation	1981
344BB	378	S	Electricity Substation	1988
345BT	378	W	Electricity Substation	1991
346BT	378	W	Electricity Substation	1952
347BT	378	W	Electricity Substation	1970
348BT	378	W	Electricity Substation	1969
349BT	378	W	Electricity Substation	1952
350BB	379	S	Electricity Substation	1971
351BT	379	W	Electricity Substation	1987
352BT	379	W	Electricity Substation	1978
353BT	379	W	Electricity Substation	1978
354BV	385	W	Electricity Substation	1991
355Y	388	NW	Electricity Substation	1988
356Y	388	NW	Electricity Substation	1991
357Y	388	NW	Electricity Substation	1991
358Y	388	NW	Electricity Substation	1994
359BU	390	SE	Electricity Substation	1993
360BU	390	SE	Electricity Substation	1988

361BU	390	SE	Electricity Substation	1985
362BU	390	SE	Electricity Substation	1989
363BU	390	SE	Electricity Substation	1952
364BU	391	SE	Electricity Substation	1952
365BU	391	SE	Electricity Substation	1967
366BU	391	SE	Electricity Substation	1967
367BV	395	W	Electricity Substation	1993
368Z	398	N	Electricity Works	1967
369Z	398	N	Electricity Works	1952
370Z	398	N	Electricity Works	1966
371Z	398	N	Electricity Works	1952
372BW	420	N	Electricity Substation	1993
373BW	421	N	Electricity Substation	1984
374BX	448	SW	Electricity Substation	1952
375BX	448	SW	Electricity Substation	1969
376BX	448	SW	Electricity Substation	1970
377BX	448	SW	Electricity Substation	1952
378BX	448	SW	Electricity Substation	1969
379BX	449	SW	Electricity Substation	1988
380BX	449	SW	Electricity Substation	1988
381BX	449	SW	Electricity Substation	1985
382BX	451	SW	Electricity Substation	1996
383BX	451	SW	Electricity Substation	1998
384BX	451	SW	Electricity Substation	1996
385BY	459	E	Electricity Substation	1983
386BY	459	E	Electricity Substation	1968
387BY	460	E	Electricity Substation	1993
388BY	460	E	Electricity Substation	1967
389BZ	465	E	Electricity Substation	1988
390BZ	465	E	Electricity Substation	1990
391BZ	465	E	Electricity Substation	1990
392BZ	465	E	Electricity Substation	1990
393BZ	465	E	Electricity Substation	1975

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 109

ID	Distance (m)	Direction	Use	Date
394CA	5	E	Garage	1960
395CA	5	E	Garage	1952
396CB	36	NE	Coach Works	1952
397CB	36	NE	Coach Works	1952
398CD	53	NW	Garage	1952
399CC	54	SE	Garage	1952
400CC	54	SE	Garage	1960
401CC	55	SE	Garage	1952
402CD	55	NW	Garage	1960
403CE	71	NE	Garage	1960
404CE	71	NE	Garage	1952
405CF	105	NE	Garage	1987
406CF	106	NE	Garage	1967
407CF	117	NE	Garage	1963
408CF	117	NE	Garage	1952
409CF	118	NE	Garage	1960
410CF	118	NE	Garage	1967
411CF	118	NE	Garage	1974
412CF	118	NE	Garage	1991
413CG	135	N	Garage	1991
414CG	135	N	Garage	1988
415CG	135	N	Garage	1988
416CG	135	N	Garage	1991
417CH	142	N	Garage	1952
418CH	142	N	Garage	1960
419CG	146	N	Garage	1994
420CI	153	W	Garages	1973
421CI	153	W	Garages	1965
422CJ	162	N	Garage	1973
423CJ	162	N	Garage	1965
424CJ	162	N	Garage	1967
425CK	183	SW	Garage	1965
426BP	184	W	Garages	1952
427BP	184	W	Garages	1967
428BP	184	W	Garages	1952
429BP	184	W	Garages	1960
430CK	184	SW	Garage	1952

431CK	188	SW	Garage	1967
432CK	188	SW	Garage	1960
433CL	228	SW	Garage	1985
434CL	237	SW	Garage	1975
435CL	237	SW	Garage	1960
436CL	243	SW	Garage	1967
437CL	243	SW	Garage	1965
438CL	243	SW	Garage	1952
439	272	N	Garage	1994
440CM	310	W	Garage	1969
441CM	311	W	Garage	1970
442CM	311	W	Garage	1978
443CM	311	W	Garage	1978
444Z	363	N	Garage	1991
445Z	363	N	Garage	1988
446Z	363	N	Garage	1988
447Z	363	N	Garage	1991
448Z	363	N	Garage	1985
449Z	364	N	Garage	1994
450Y	369	N	Garage	1988
451Y	369	N	Garage	1991
452Y	369	N	Garage	1991
453Y	369	N	Garage	1988
454Y	369	N	Garage	1985
455Y	370	N	Garage	1973
456Y	370	N	Garage	1965
457Y	370	N	Garage	1967
458Y	370	N	Garage	1994
459CN	380	S	Electric Engineering Works	1988
460CN	380	S	Electric Engineering Works	1981
461Z	402	N	Garage	1993
462BW	403	N	Garage	1984
463CO	413	N	Garage	1993
464CO	414	N	Garage	1967
465CO	414	N	Garage	1966
466CO	414	N	Garage	1984
467CO	415	N	Motor Works	1952
468CP	416	NW	Garage	1987
469CP	416	NW	Garage	1978
470CP	416	NW	Garage	1978
471CP	420	NW	Garage	1993
472CP	421	NW	Garage	1991
473CP	421	NW	Garage	1970
474CP	427	NW	Garage	1969

475AH	428	S	Garage	1951
476CP	442	NW	Garage	1987
477CP	442	NW	Garage	1978
478CP	442	NW	Garage	1978
479CP	442	NW	Garage	1969
480CP	443	NW	Garage	1970
481CQ	451	NW	Imperial Garage	1952
482CQ	452	NW	Imperial Garage	1952
483CR	454	SW	Garage	1969
484CR	454	SW	Garage	1970
485CR	454	SW	Garage	1969
486CR	461	SW	Garage	1988
487CR	461	SW	Garage	1988
488CR	461	SW	Garage	1985
489CR	464	SW	Garage	1996
490CR	464	SW	Garage	1996
491CR	464	SW	Garage	1998
492AF	472	S	Garage	1995
493AF	472	S	Garage	1995
494AF	473	S	Garage	1971
495CS	473	W	Garage	1970
496CS	473	W	Garage	1952
497CS	473	W	Garage	1952
498CS	473	W	Garage	1969
499AF	474	S	Garage	1988
500AF	474	S	Garage	1981
501CS	482	W	Garage	1978
502CS	482	W	Garage	1978

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 78

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
503	0	On Site	Pond	1869
504	0	On Site	Pond	1869
505CT	192	NE	Lake	1908
506CT	192	NE	Lake	1931
507J	194	E	Tunnel	1898
508J	194	E	Tunnel	1898
509J	197	E	Tunnel	1938
510J	197	E	Tunnel	1895
511J	197	E	Tunnel	1908
512J	197	E	Tunnel	1931

513J	197	E	Tunnel	1981
514J	197	E	Tunnel	1957
515J	197	E	Tunnel	1968
516J	197	E	Tunnel	1989
517L	205	SE	Cuttings	1895
518L	205	SE	Cuttings	1938
519L	205	SE	Cuttings	1908
520L	205	SE	Cuttings	1931
521CT	208	NE	Lake	1938
522L	212	SE	Cuttings	1898
523L	212	SE	Cuttings	1898
524CU	216	E	Unspecified Ground Workings	1869
525M	226	SE	Cuttings	1908
526M	238	SE	Cuttings	1938
527M	238	SE	Cuttings	1895
528M	241	SE	Cuttings	1931
529CV	246	SW	Unspecified Heap	1869
530O	262	SE	Cuttings	1898
531O	262	SE	Cuttings	1898
532V	270	SE	Unspecified Ground Workings	1869
533V	309	SE	Unspecified Ground Workings	1938
534V	309	SE	Unspecified Pit	1908
535V	309	SE	Unspecified Pit	1931
536AA	358	NE	Cuttings	1898
537AA	358	NE	Cuttings	1898
538AB	361	NE	Cuttings	1957
539AB	361	NE	Cuttings	1981
540AB	361	NE	Cuttings	1968
541AB	361	NE	Cuttings	1989
542Z	365	N	Fish Ponds	1869
543AB	368	NE	Cuttings	1931
544AA	370	NE	Cuttings	1938
545AA	370	NE	Cuttings	1895
546AC	374	SE	Unspecified Ground Workings	1898
547AC	374	SE	Unspecified Ground Workings	1898
548AC	376	SE	Unspecified Pit	1938
549AC	376	SE	Unspecified Quarry	1895
550AF	384	S	Cuttings	1895
551AF	384	S	Cuttings	1908
552AF	384	S	Cuttings	1938
553AF	384	S	Cuttings	1931
554AA	404	NE	Cuttings	1908

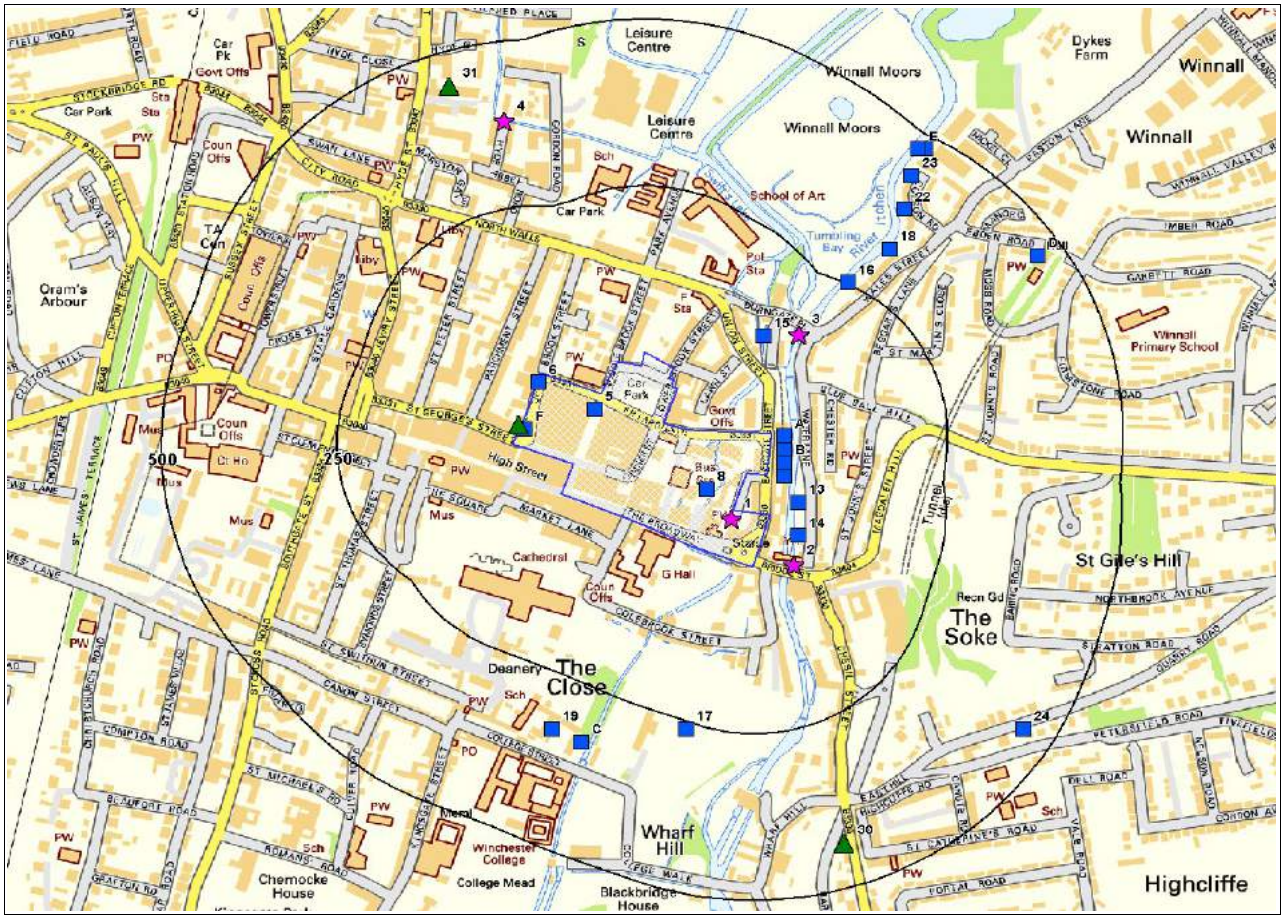
555AG	407	NW	Unspecified Ground Workings	1895
556AG	408	NW	Unspecified Ground Workings	1898
557AG	408	NW	Unspecified Ground Workings	1898
558AK	420	S	Unspecified Ground Workings	1938
559AH	423	S	Unspecified Ground Workings	1931
560AH	423	S	Unspecified Ground Workings	1908
561AG	424	NW	Unspecified Pit	1898
562AG	424	NW	Unspecified Pit	1898
563AG	430	NW	Unspecified Pit	1869
564AJ	441	W	Unspecified Ground Workings	1898
565AJ	441	W	Unspecified Ground Workings	1898
566AN	487	E	Cemetery	1981
567AN	487	E	Cemetery	1968
568AN	487	E	Cemetery	1957
569AN	487	E	Cemetery	1989
570AN	488	E	Cemetery	1938
571AN	488	E	Cemetery	1931
572AN	488	E	Cemetery	1908
573AO	494	NE	Cuttings	1957
574AO	494	NE	Cuttings	1968
575AO	497	NE	Cuttings	1895
576AO	498	NE	Cuttings	1908
577AO	498	NE	Cuttings	1931
578AO	498	NE	Cuttings	1938
579AP	499	S	Unspecified Ground Workings	1931
580AP	499	S	Unspecified Ground Workings	1908

2. Environmental Permits, Incidents and Registers Map

NW N NE

W E

SW S SE



- Site Outline
- Search Buffers (m) (250, 500)
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

3

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
29F	3	W	448222 129514	Address: Gervades (N Akhtar & J B Akhtar), 7 Upper Brook St, Winchester, SO23 8AR Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified
30	437	S	448684 128885	Address: Scothall Hampshire, Unit1 Bar End Industrial Estate, Winchester, RG23 7HH Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified
31	446	N	448123 130022	Address: Evans Halshaw, Hyde St (now Silchester Place), SO23 7FT Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

24

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
5	0	On Site	448330 129540	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991
6	0	On Site	448250 129580	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991

ID	Distance (m)	Direction	NGR	Details	
7F	0	On Site	448230 129510	Address: THE BROOKS, THE BROOKS, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01961 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1988 Effective Date: 14-Oct-1988 Revocation Date: 01/07/1991
8	0	On Site	448490 129420	Address: OMNIBUS STATION, OMNIBUS STATION, BROADWAY, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: H01253 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 12/01/1967 Effective Date: 12-Jan-1967 Revocation Date: 08/03/1996
9A	18	E	448600 129500	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
10A	20	E	448600 129480	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
11B	22	E	448600 129460	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
12B	25	E	448600 129440	Address: 62 & 63 EASTGATE STREET, 62 & 63 EASTGATE STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01229 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/11/1979 Effective Date: 23-Nov-1979 Revocation Date: 01/07/1991
13	44	NE	448620 129400	Address: CHESTER ROAD, CHESTER ROAD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01169 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 22/07/1982 Effective Date: 22-Jul-1982 Revocation Date: 31/03/1997
14	48	E	448620 129350	Address: 7-13 WATER LANE, 7-13 WATER LANE, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01875 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 01/07/1991
15	137	E	448570 129650	Address: 36-39 UNION STREET, 36-39 UNION STREET, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01876 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 01/07/1991

ID	Distance (m)	Direction	NGR	Details	
16	251	NE	448690 129730	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
17	261	S	448460 129060	Address: THE CASTLE, THE CASTLE, WINCHESTER, HAMPSHIRE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: N01620 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 20/08/1979 Effective Date: 20-Aug-1979 Revocation Date: -
18	324	NE	448750 129780	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
19	332	SW	448270 129060	Address: THE PILGRIMS' SCHOOL, THE PILGRIMS' SCHOOL, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SWIMMING POOL WATER Permit Number: H02615 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 23/08/1966 Effective Date: 23-Aug-1966 Revocation Date: 31/03/1997
20C	333	SW	448310 129040	Address: THE PILGRIMS SCHOOL - SWIMMING POOL, THE PILGRIMS SCHOOL, THE CLOSE, WINCHESTER, HAMPSHIRE, SO23 9LT Effluent Type: MISCELLANEOUS DISCHARGES - SWIMMING POOL WATER Permit Number: H01088 Permit Version: 2	Receiving Water: RIVER ITCHEN Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 06/02/2007 Effective Date: 06-Feb-2007 Revocation Date: -
21C	333	SW	448310 129040	Address: THE PILGRIMS SCHOOL - SWIMMING POOL, THE PILGRIMS SCHOOL, THE CLOSE, WINCHESTER, HAMPSHIRE, SO23 9LT Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - NOT WATER COMPANY Permit Number: H01088 Permit Version: 1	Receiving Water: RIVER ITCHEN Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/04/1966 Effective Date: 14-Apr-1966 Revocation Date: 05/02/2007
22	386	NE	448770 129840	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
23	435	NE	448780 129890	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997

ID	Distance (m)	Direction	NGR	Details	
24	454	SE	448940 129060	Address: LAND N.W OF 10 QUARRY ROAD, LAND N.W OF 10 QUARRY ROAD, WINCHESTER, HAMPSHIRE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: N03284 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 08/02/1978 Effective Date: 08-Feb-1978 Revocation Date: 31/03/1997
25D	463	NE	448960 129770	Address: SCOUT HEADQUARTERS, WINALL, SCOUT HEADQUARTERS, GARBETT ROAD, WINALL, WINCHESTER, HAMPSHIRE, SO23 0NY Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P01427 Permit Version: 1	Receiving Water: INTO LAND Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 25/02/1988 Effective Date: 25-Feb-1988 Revocation Date: 20/12/2012
26D	463	NE	448960 129770	Address: SCOUT HEADQUARTERS, WINALL, SCOUT HEADQUARTERS, GARBETT ROAD, WINALL, WINCHESTER, HAMPSHIRE, SO23 0NY Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P01427 Permit Version: 2	Receiving Water: INTO LAND Status: VARIED UNDER EPR 2010 Issue date: 21/12/2012 Effective Date: 21-Dec-2012 Revocation Date: -
27E	475	NE	448790 129930	Address: WALES ST & COLSON RD, WALES ST & COLSON RD, WINCHESTER, HAMPSHIRE Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P01867 Permit Version: 1	Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 28/09/1988 Effective Date: 28-Sep-1988 Revocation Date: 31/03/1997
28E	479	NE	448800 129930	Address: 77 WALES STREET, 77 WALES STREET, WINCHESTER, HAMPSHIRE Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: H02754 Permit Version: 1	Receiving Water: INTO LAND Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 04/10/1971 Effective Date: 04-Oct-1971 Revocation Date: 31/03/1997

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

4

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1	0	On Site	448524 129375	Incident Date: 19-Jun-2003 Incident Identification: 167196 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Animal and Vegetable Oil	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2	53	E	448612 129306	Incident Date: 01-Sep-2003 Incident Identification: 186587 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Food and Drink	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	154	N	448620 129652	Incident Date: 12-May-2003 Incident Identification: 157617 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	381	N	448200 129972	Incident Date: 23-Jul-2001 Incident Identification: 18509 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map

NW N NE

W E

SW S SE

Site Outline

250 / 500 Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

8

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
4	361	NE	448900 129700	Site Address: Railway Cutting, Winnal Valley Road, Winchester, Hamsphire Waste Licence: Yes Site Reference: FW36, 5/13 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: City of Winchester, City Offices, Colebrook Street, Winchester, Hampshire Operator: - Licence Holder: City Engineer First Recorded: 15-May-1978 Last Recorded: -
5	634	NE	449100 130000	Site Address: Disused Railway Cutting at Easton Lane, Winchester, Hampshire Waste Licence: - Site Reference: FW52 Waste Type: Inert, Industrial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: - First Recorded: 01-Jan-1969 Last Recorded: -
6	710	NE	449100 130200	Site Address: Winnall, Winchester, Hampshire Waste Licence: - Site Reference: FW19 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: - First Recorded: 31-Jan-1969 Last Recorded: -
Not shown	752	N	448600 130400	Site Address: Nuns Road, Winchester, Hampshire Waste Licence: - Site Reference: FW50, WIN 9 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: Hyde Street, Winchester Operator: R J Best Licence Holder: R J Best First Recorded: 01-Jan-1963 Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1090	SE	449400 128500	Site Address: King George V Playing Fields, Winchester Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1167	SW	447900 128200	Site Address: Garnier Road Pumping Station, Winchester, Hampshire Waste Licence: - Site Reference: WIN 8 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: City of Winchester Licence Holder: City of Winchester First Recorded: 01-Jan-1910 Last Recorded: -
Not shown	1238	SE	449400 128200	Site Address: Land At Morestead Waste Water Treatment Works, Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Waste Licence: Yes Site Reference: FW61, W140a Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: SI1/L/DEP001	Licence Issue: 23-Aug-1993 Licence Surrendered: 10-Dec-2001 Licence Holder Address: South East Construction Programme Division, Federated House, London Road, Dorking Operator: Department Of Transport Licence Holder: Department of Transport First Recorded: 23-Aug-1993 Last Recorded: -
Not shown	1401	NE	449700 130400	Site Address: Spitfire Link, Easton Lane, Winchester Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

3

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
Not shown	897	N	448600.0 130500.0	Address: Nuns Road, Winchester BGS Number: 514.0	Risk: Risk to major and minor aquifer Waste Type: N/A
Not shown	1009	NE	449200.0 130300.0	Address: Winnall, Winchester BGS Number: 515.0	Risk: Risk to major aquifer Waste Type: N/A
Not shown	1227	S	448000.0 128200.0	Address: Garnier Road Pumping Station, Winchester BGS Number: 513.0	Risk: Risk to major and minor aquifer Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

2

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	758	N	448604 130522	Nuns road	Environment Agency	Polygon
Not shown	864	NE	449170 130310	Refuse Tip	1972 mapping	Polygon

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

14

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

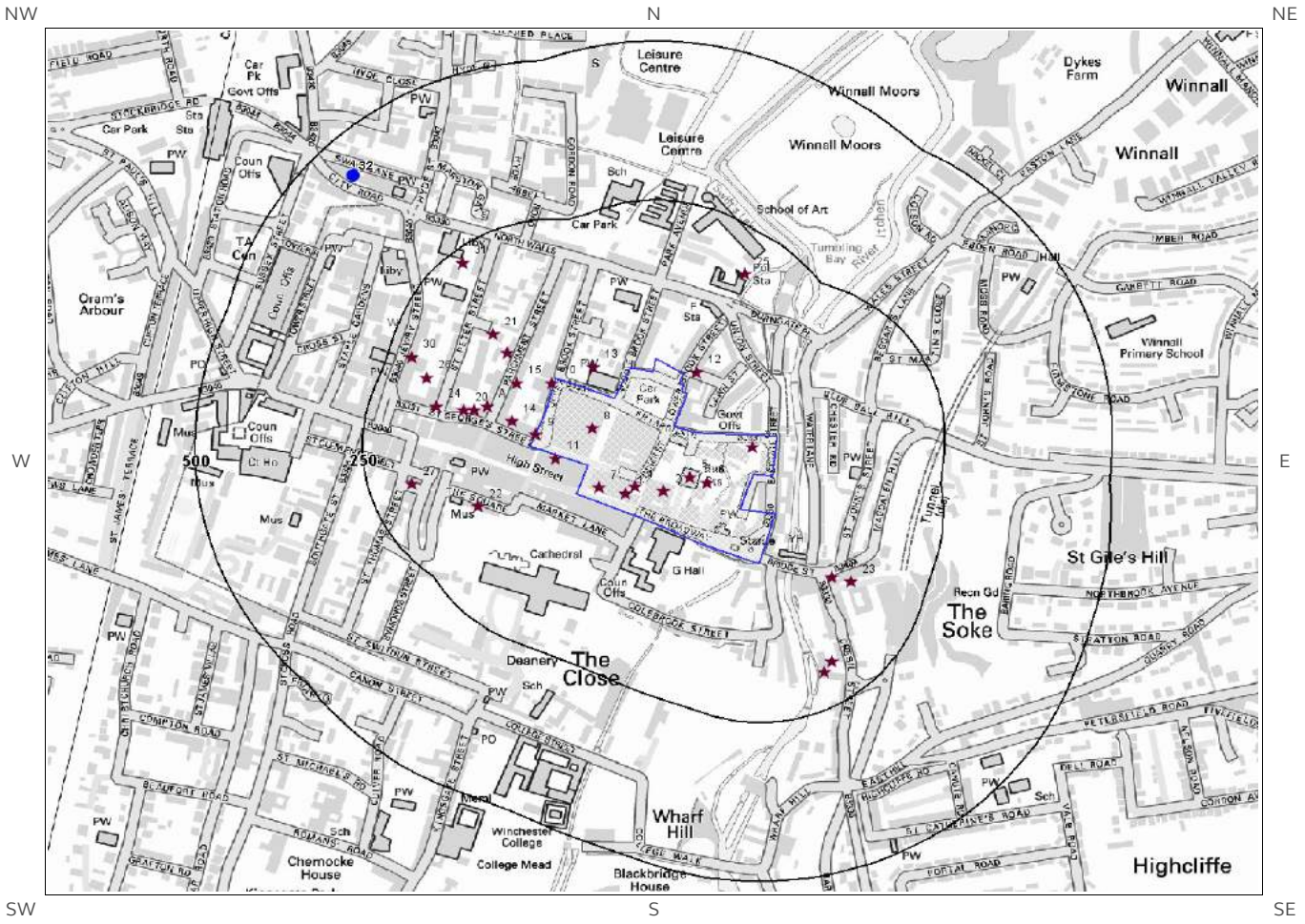
ID	Distance (m)	Direction	NGR	Details	
Not shown	568	S	448630 128740	Site Address: C D Jordan & Son Ltd, Barfield Close, Bar End, Winchester, Hampshire, SO23 9SQ Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CDJ001 EPR reference: EA/EPR/MP3192HE/S003 Operator: C D Jordan & Son Ltd Waste Management licence No: 19850 Annual Tonnage: 0.0	Issue Date: 19/06/1997 Effective Date: 20/02/2003 Modified: 11/12/2009 Surrendered Date: 29/11/2012 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: C D Jordan & Son Ltd Correspondence Address: -
Not shown	675	S	448780 128666	Site Address: Central Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SER001 EPR reference: EA/EPR/RP3395HX/V002 Operator: Serco Ltd Waste Management licence No: 10208 Annual Tonnage: 4800.0	Issue Date: 13/12/1999 Effective Date: - Modified: 18/05/2001 Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Modified Site Name: Serco Ltd - Bar End Road Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	675	S	448780 128666	Site Address: Central Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SER001 EPR reference: EA/EPR/RP3395HX/S003 Operator: Serco Ltd Waste Management licence No: 10208 Annual Tonnage: 0.0	Issue Date: 13/12/1999 Effective Date: - Modified: 18/05/2001 Surrendered Date: 20/06/2016 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Serco Ltd - Bar End Road Correspondence Address: -
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: EA/EPR/JP3895HK/V002 Operator: Hopkins Recycling Ltd Waste Management licence No: 10248 Annual Tonnage: 8760.0	Issue Date: 09/12/2004 Effective Date: - Modified: 10/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Winchester H W R C Correspondence Address: -
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Winchester, Hampshire, SO23 9PB Type: - Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hampshire County Council Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Winchester H W R C Correspondence Address: The Castle, Winchester, Hampshire, SO23 8UD
Not shown	948	S	448792 128385	Site Address: Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hopkins Recycling Ltd Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: H W R C Winchester Correspondence Address: Unit 10 Bridge Farm, Curbridge, Botley, Southampton, Hampshire, SO30 2HB
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Winchester, Hampshire, SO23 9NP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM020 EPR reference: - Operator: Hampshire County Council Waste Management licence No: 10248 Annual Tonnage: 0.0	Issue Date: 09/12/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Winchester H W R C Correspondence Address: The Castle, Winchester, Hampshire, SO23 8UD
Not shown	948	S	448792 128385	Site Address: Bar End Depot, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VES036 EPR reference: EA/EPR/DB3903HF/T001 Operator: Veolia E S Hampshire Ltd Waste Management licence No: 10248 Annual Tonnage: 8760.0	Issue Date: 09/12/2004 Effective Date: 25/03/2016 Modified: 10/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Winchester H W R C Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	958	S	448638 128349	Site Address: Unit E, Bar End Industrial Estate, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAN003 EPR reference: - Operator: Cannon Hygiene Ltd Waste Management licence No: 10270 Annual Tonnage: 0.0	Issue Date: 06/09/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Transfer Station At Unit E, Bar End Industrial Estate Correspondence Address: Northgate House, Northgate, White Lund, Morecambe, Lancashire, LA3 3BJ
Not shown	958	S	448638 128349	Site Address: Unit E, Bar End Industrial Estate, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAN003 EPR reference: EA/EPR/PP3898HD/A001 Operator: Cannon Hygiene Ltd Waste Management licence No: 10270 Annual Tonnage: 5000.0	Issue Date: 06/09/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Cannon Hygiene, Winchester Correspondence Address: -
Not shown	958	S	448638 128349	Site Address: Unit E Bar End Ind Est, Bar End Road, Winchester, Hampshire, SO23 9NP Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: OCS024 EPR reference: EA/EPR/NB3034RA/T001 Operator: O C S Group U K Limited Waste Management licence No: 10270 Annual Tonnage: 5000.0	Issue Date: 06/09/2006 Effective Date: 10/01/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Winchester Site Correspondence Address: -
Not shown	1227	S	448000 128200	Site Address: Garnier Road, Winchester, Hampshire, SO23 9QG Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOP007 EPR reference: EA/EPR/MP3092HZ/S002 Operator: Hopkins Recycling Ltd Waste Management licence No: 19843 Annual Tonnage: 7000.0	Issue Date: 11/08/1997 Effective Date: - Modified: - Surrendered Date: 04/03/2005 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: H W R C At Garnier Road Correspondence Address: -
Not shown	1333	SE	449360 128240	Site Address: Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DEP001 EPR reference: - Operator: Department Of Transport Waste Management licence No: 19863 Annual Tonnage: 0.0	Issue Date: 23/08/1993 Effective Date: - Modified: - Surrendered Date: 10/12/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Land At Morestead Waste Water Treatment Works Correspondence Address: South Eastern Construction, Federated House, London Road, Dorking, Surrey, RH4 1SZ

ID	Distance (m)	Direction	NGR	Details	
Not shown	1333	SE	449360 128240	Site Address: Morestead Waste Water Treatment Works, Morestead Road, Winchester, Hampshire Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DEP001 EPR reference: EA/EPR/XP3392HX/S002 Operator: Department Of Transport Waste Management licence No: 19863 Annual Tonnage: 150000.0	Issue Date: 23/08/1993 Effective Date: - Modified: - Surrendered Date: 10/12/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Land At Morestead Waste Water Treatment Works Correspondence Address: -

4. Current Land Use Map



Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 31

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Fone World	448355 129414	150, High Street, Winchester, SO23 9AY	Radar and Telecommunications Equipment	Industrial Products
2	0	On Site	Warehouse	448412 129418	SO23	Container and Storage	Transport, Storage and Delivery
3	0	On Site	Electricity Sub Station	448545 129487	SO23	Electrical Features	Infrastructure and Facilities
4	0	On Site	Electricity Sub Station	448370 129425	SO23	Electrical Features	Infrastructure and Facilities
5	0	On Site	Bus Station	448451 129440	SO23	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
6	0	On Site	Tank	448477 129431	SO23	Tanks (Generic)	Industrial Features
7	0	On Site	Boots Hearingcare	448316 129423	144, High Street, Winchester, SO23 9AY	Disability and Mobility Equipment	Consumer Products
8	0	On Site	Winchester Shop Mobility	448306 129516	Upper Parking Level, The Brooks, Winchester, SO23 8QY	Disability and Mobility Equipment	Consumer Products
9	1	W	Hampshire Chronicle	448221 129506	5, Upper Brook Street, Winchester, SO23 8AL	Published Goods	Industrial Products
10	5	W	Telephone Exchange	448245 129588	SO23	Telecommunications Features	Infrastructure and Facilities
11	5	S	Winchester Photographic	448251 129469	St. Georges Street, Winchester, SO23 8AH	Photographic and Optical Equipment	Household, Office, Leisure and Garden
12	20	E	Electricity Sub Station	448462 129605	SO23	Electrical Features	Infrastructure and Facilities
13	36	N	Tank	448308 129613	SO23	Tanks (Generic)	Industrial Features
14	40	W	Amplifon	448187 129528	58, St. Georges Street, Winchester, SO23 8AH	Disability and Mobility Equipment	Consumer Products
15	54	W	Winchester Hearing Ltd	448193 129587	68, Parchment Street, Winchester, SO23 8AT	Disability and Mobility Equipment	Consumer Products
16A	83	W	The Clock Work Shop	448150 129551	6a, Parchment Street, Winchester, SO23 8AT	Jewellery, Gems, Clocks and Watches	Consumer Products
17	83	NW	R J M	448178 129634	Kingdons Yard, Parchment Street, Winchester, SO23 8AT	Civil Engineers	Engineering Services
18A	100	W	D & G Hardware	448130 129544	42-44, St. Georges Street, Winchester, SO23 8BE	General Construction Supplies	Industrial Products

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
19	108	E	Electricity Sub Station	448663 129283	SO23	Electrical Features	Infrastructure and Facilities
20	114	W	Habels	448114 129545	38-40, St. Georges Street, Winchester, SO23 8BE	Beds and Bedding	Consumer Products
21	117	NW	Electricity Sub Station	448158 129665	SO23	Electrical Features	Infrastructure and Facilities
22	122	SW	Dinghams	448136 129393	4, The Square, Winchester, SO23 9ES	Fireplaces and Mantelpieces	Consumer Products
23	137	E	Electricity Sub Station	448691 129275	SO23	Electrical Features	Infrastructure and Facilities
24	155	W	Renews Ltd	448073 129551	St. Georges House 18, St. Georges Street, Winchester, SO23 8BG	Published Goods	Industrial Products
25	182	NE	Electricity Sub Station	448533 129759	SO23	Electrical Features	Infrastructure and Facilities
26	185	W	Electricity Sub Station	448059 129596	SO23	Electrical Features	Infrastructure and Facilities
27	186	W	Electricity Sub Station	448037 129429	SO23	Electrical Features	Infrastructure and Facilities
28B	187	SE	Electricity Sub Station	448663 129150	SO23	Electrical Features	Infrastructure and Facilities
29B	196	SE	Kwik-Fit (GB) Limited	448652 129132	32-34, Chesil Street, Winchester, SO23 0HX	Vehicle Repair, Testing and Servicing	Repair and Servicing
30	216	W	Copyman & the Copying Centre Ltd	448036 129629	41-43, Jewry Street, Winchester, SO23 8RY	Published Goods	Industrial Products
31	229	NW	Electricity Sub Station	448113 129777	SO23	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
32	440	NW	447949 129914	Obsolete	A H F Auto, Swan Lane, Swan Lane, Winchester, Hampshire, SO23 8SG	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

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5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

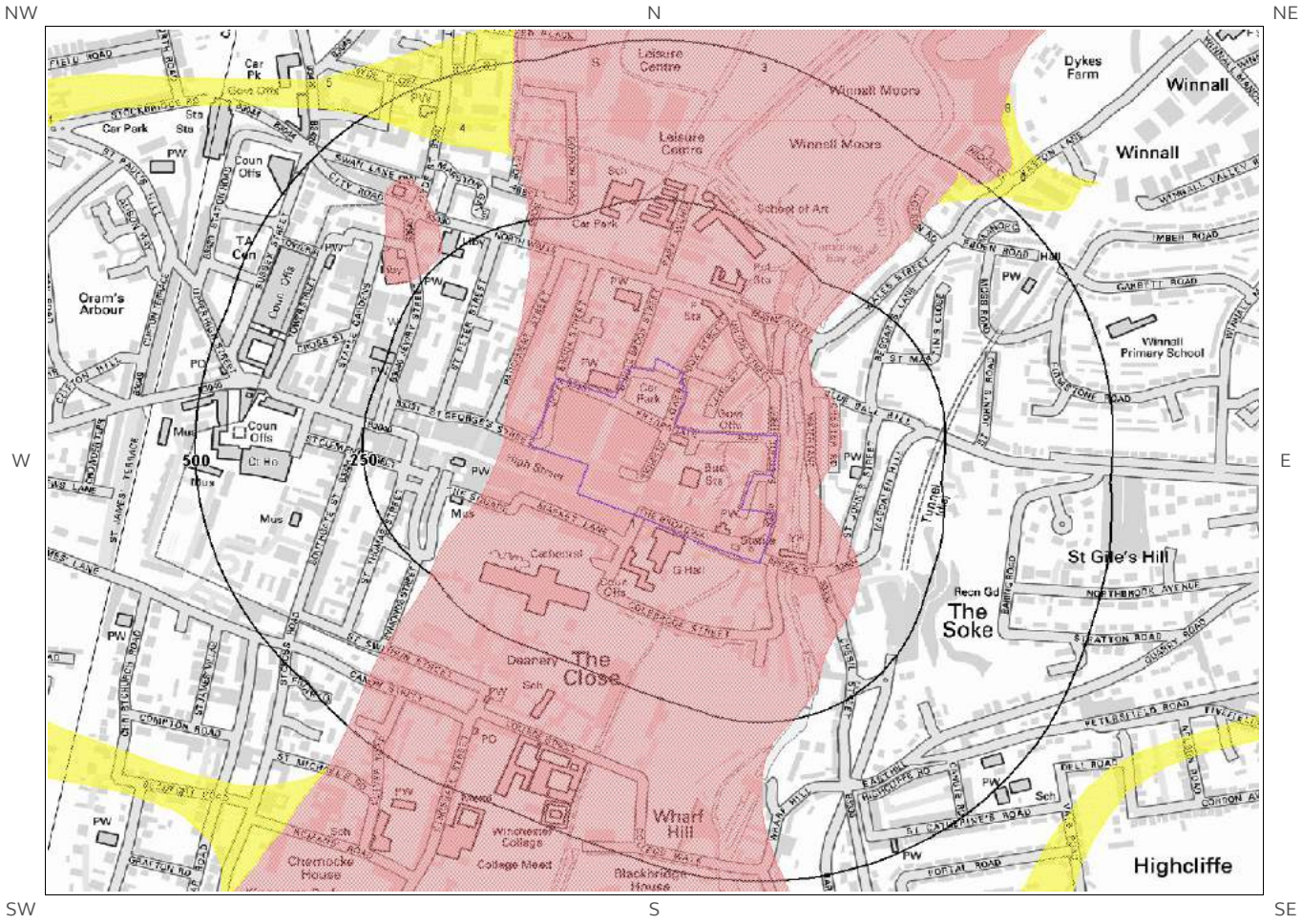
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LECH-CHLK	LEWES NODULAR CHALK FORMATION	CHALK
NPCH-CHLK	NEW PIT CHALK FORMATION	CHALK

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses

Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

Secondary Aquifer - Undifferentiated Layers

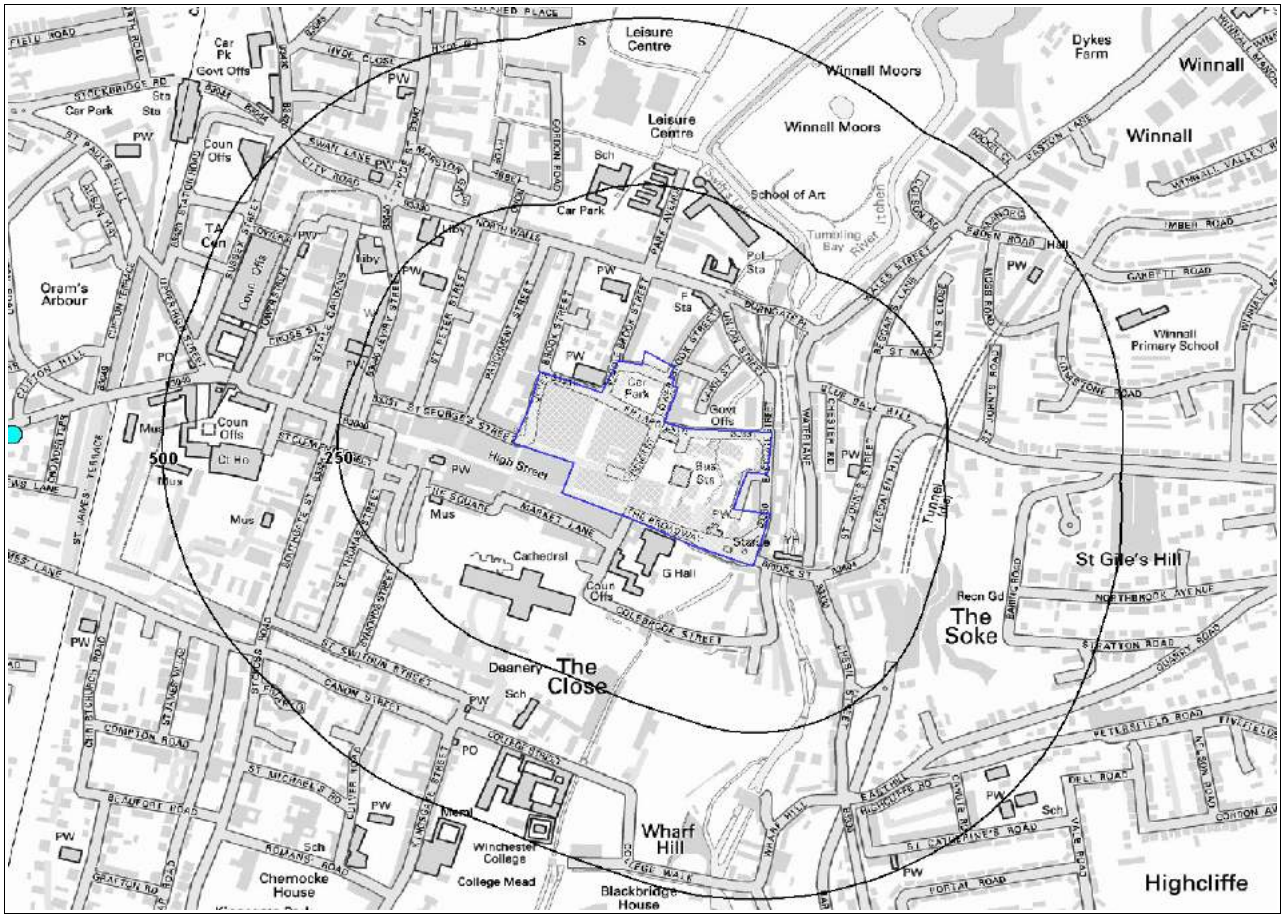
Unproductive

Unknown (lakes and landslip)

Surface Water Abstraction Licence

6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

NW N NE



W E

SW S SE

Site Outline

250 Search Buffers (m)
500

Source Protection Zone 1 - Inner Catchment

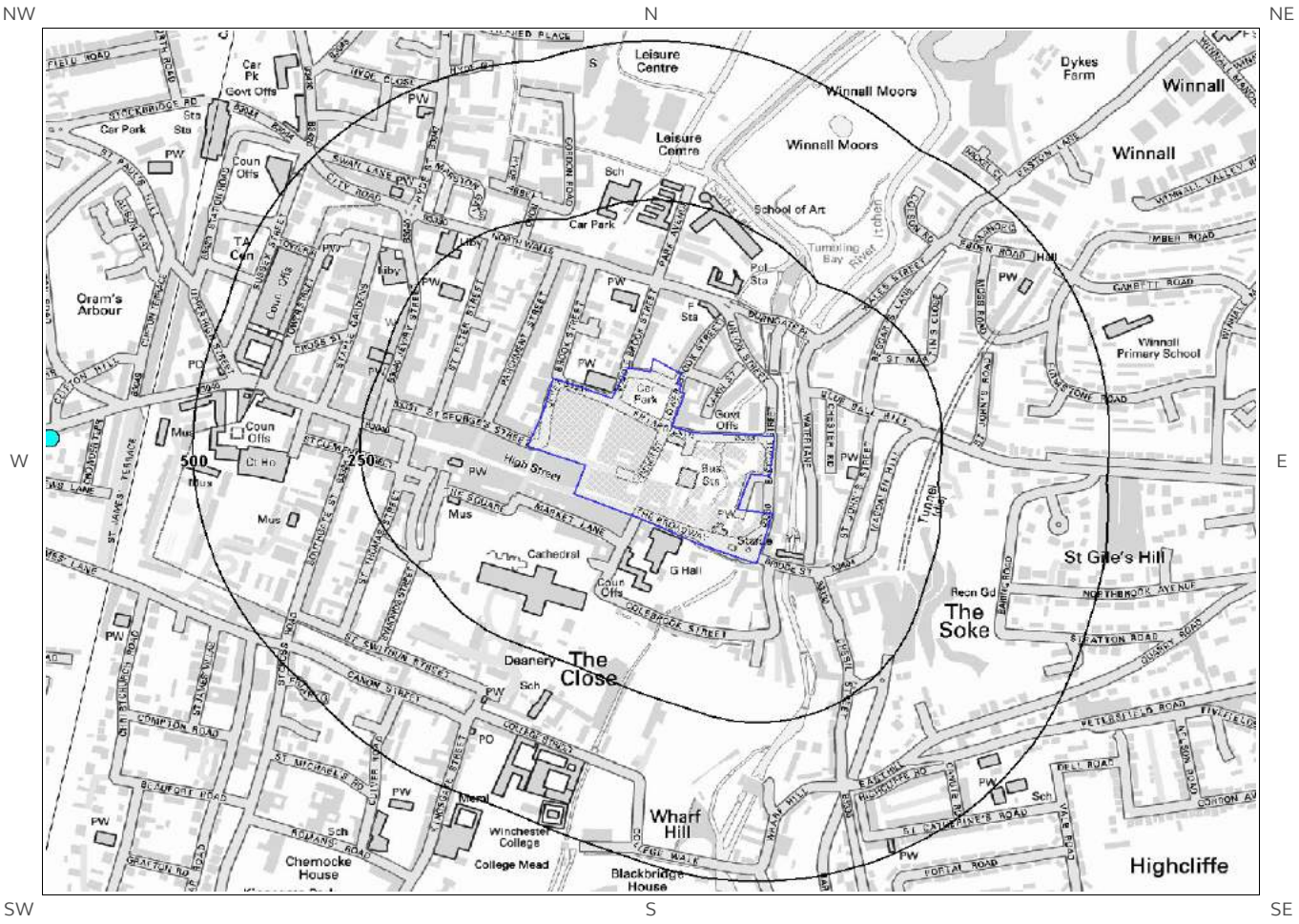
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



Site Outline

250 Search Buffers (m)
500

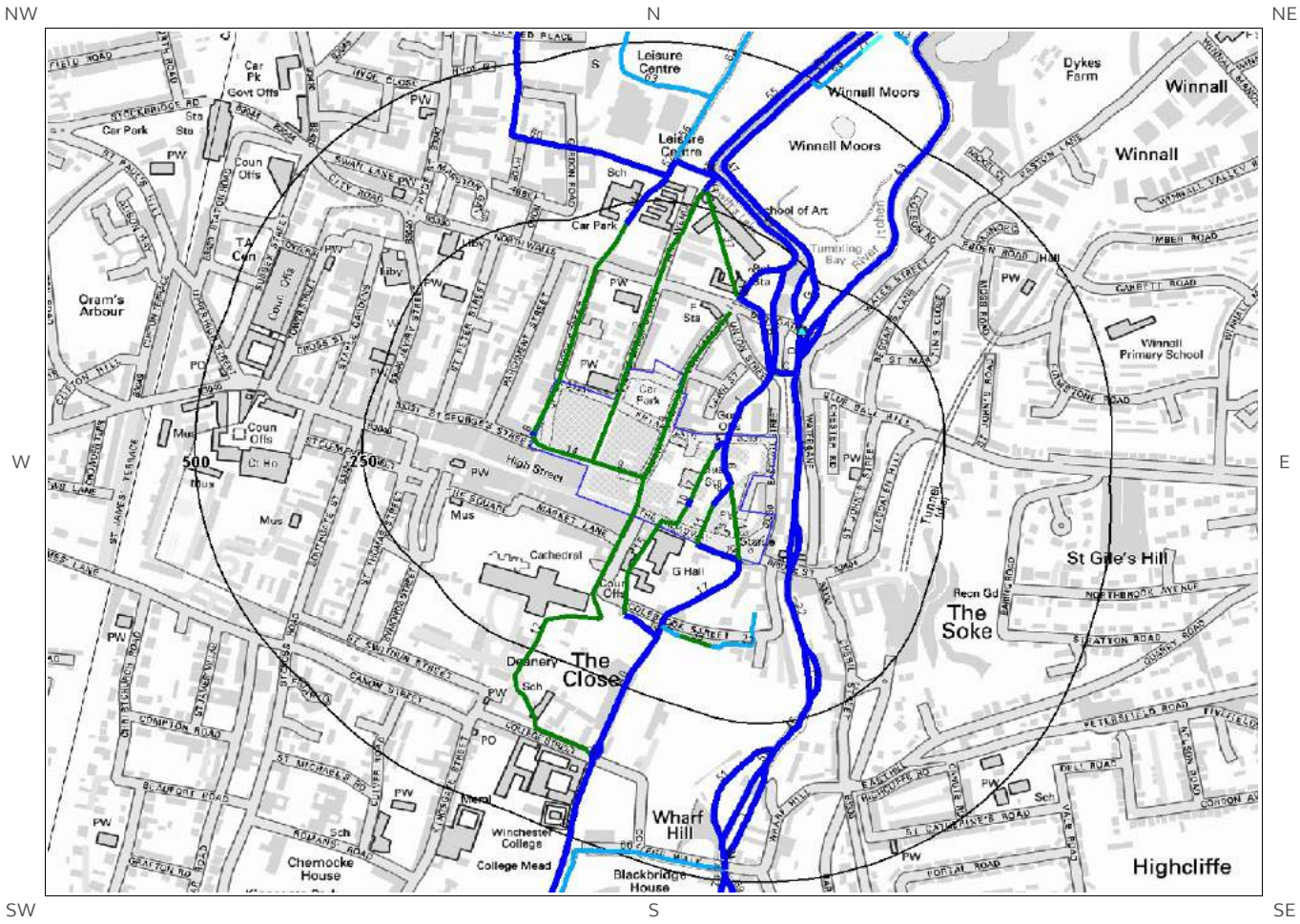
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Detailed River Network and River Quality



Site Outline

250
500
Search Buffers (m)

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	257	NW	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
4	358	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
3	375	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	411	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	439	NE	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	375	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
3	262	NE	448570 129830	Status: Historical Licence No: 11/42/22.6/78 Details: Laundry Use Direct Source: Southern Region Groundwater Point: Winchester Laundry, Hyde Abbey Road Data Type: Point Name: Brian Hampson & Paul Hampson & Sheila Lemon	Annual Volume (m^3): 38000 Max Daily Volume (m^3): 145 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 30/1/2003 Version End Date:
4	714	W	447500 129500	Status: Historical Licence No: 11/42/22.4/80 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: Itchen Valley Point B Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 6637160 Max Daily Volume (m^3): 27276 Original Application No: NPS/WR/019021 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/4/2015 Version End Date:
Not shown	1180	SW	447980 128260	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point B At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1180	SW	447980 128260	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point B At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1211	SW	447950 128240	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point A At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1211	SW	447950 128240	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point A At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1213	SW	447990 128220	Status: Historical Licence No: 11/42/22.6/129 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: Sewage Ps Point C At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1213	SW	447990 128220	Status: Historical Licence No: 11/42/22.6/129 Details: Non-Evaporative Cooling Direct Source: Southern Region Groundwater Point: Sewage Ps Point C At Garnier Road, Winchester Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 45460 Original Application No: WR.4076 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 27/3/1979 Version End Date:
Not shown	1264	S	448110 128120	Status: Historical Licence No: 31/105 Details: Fish Farm/Cress Pond Throughflow Direct Source: Southern Region Groundwater Point: Point A, Borehole At Garnier Road Data Type: Point Name: Winchester College	Annual Volume (m^3): 32760 Max Daily Volume (m^3): 120 Original Application No: 169/0027H Original Start Date: 12/2/2008 Expiry Date: 12/2/2012 Issue No: 1 Version Start Date: 12/2/2008 Version End Date:
Not shown	1268	S	448113 128115	Status: Historical Licence No: SO/042/0031/019 Details: Fish Farm/Cress Pond Throughflow Direct Source: Southern Region Groundwater Point: Point A, Borehole At Garnier Road Data Type: Point Name: Winchester College	Annual Volume (m^3): 32760 Max Daily Volume (m^3): 120 Original Application No: NPS/WR/009538 Original Start Date: 17/2/2012 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 17/2/2012 Version End Date:
Not shown	1780	NE	449900 130700	Status: Historical Licence No: 31/094 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Shoulder Of Mutton Farm, Kingsworthy Data Type: Point Name: Rosewell	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: 169/1388 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/5/1994 Version End Date:
Not shown	1780	NE	449900 130700	Status: Historical Licence No: 31/095 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Point A At Patchings, Easton Data Type: Point Name: Poole	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: 169/1389 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 10/5/1994 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
1	714	W	447500 129500	Status: Historical Licence No: 11/42/22.4/80 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: Itchen Valley Point B Data Type: Point Name: Southern Water Services Ltd	Annual Volume (m^3): 6637160 Max Daily Volume (m^3): 27276 Original Application No: NPS/WR/019021 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
375	N	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
461	NE	Major Aquifer/Intermediate Leaching Potential	I2	Soils which can possibly transmit non – or weakly adsorbed pollutants and liquid discharges but are unlikely to transmit adsorbed pollutants.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
140D	171	N	448620 129670	River Name: Itchen Reach: Durngate Mill - U/s Itchen Abbas F.f. End/Start of Stretch: End of Stretch NGR	A	A	A	A	A
141D	171	N	448620 129670	River Name: Itchen Reach: Itchen Navigation Conf - Durngate Mill End/Start of Stretch: Start of Stretch NGR	A	A	A	A	A

6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
142D	171	N	448620 129670	River Name: R. Itchen Reach: Itchen Navigation Conf - Durngate Mill End/Start of Stretch: Start of Stretch NGR	A	A	A	A	A

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
2	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
3	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
4	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
5	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
6	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
7	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
8	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
9	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
10	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
11	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
12	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
13	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
14	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
15	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
16	1	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
17	5	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
18	5	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
19	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
20A	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
21A	29	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
22	45	E	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
23	75	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
24C	102	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
25B	103	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
26B	103	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
27C	104	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
28D	128	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
29D	128	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
30D	128	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
31E	141	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
32E	141	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
33	145	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
34	147	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
35F	147	SE	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
36F	147	SE	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
37	148	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
38	148	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
39	149	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
40	158	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
41G	182	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
42G	182	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
43	203	N	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
44	218	N	River Name: Upper Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
45	226	NE	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
46	226	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
47	254	NE	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
48H	277	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
49H	280	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
50	291	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
51	291	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
52	292	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
53	292	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
54	302	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
55	302	N	River Name: Swift's Lake Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
56	315	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
57I	315	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
58I	315	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
59J	346	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
60J	346	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
61	372	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
62	421	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
63	421	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
64	438	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
65K	467	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
66	481	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
67K	483	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
68	493	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
69	493	S	River Name: The Itchen Navigation Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
70	493	S	River Name: River Itchen Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
71	496	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
1	N
3	S
20	S
24	E
40	E
92	N
145	NE
172	SW
184	N
217	N

7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)

NW N NE

W E

SW S SE

Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

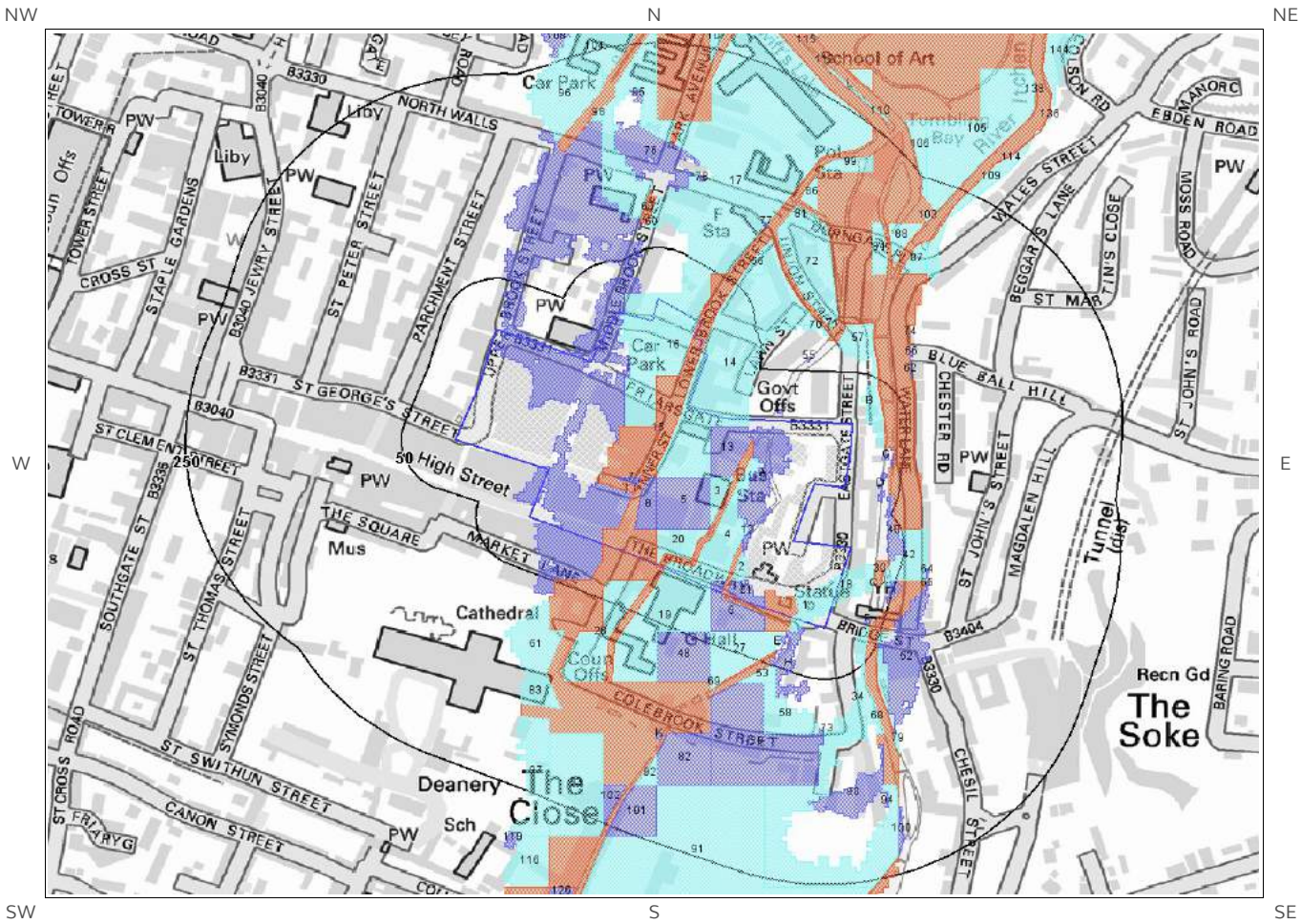
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? Yes

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
2B	8	N	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
3A	30	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
4C	30	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
5A	31	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
6A	31	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
7D	33	E	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)
8F	59	N	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? Yes

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 3 - (Fluvial Models)
2B	8	N	09-Sep-2016	Zone 3 - (Fluvial Models)
3A	26	E	09-Sep-2016	Zone 3 - (Fluvial Models)
4C	30	E	09-Sep-2016	Zone 3 - (Fluvial Models)

5A	30	E	09-Sep-2016	Zone 3 - (Fluvial Models)
6A	31	E	09-Sep-2016	Zone 3 - (Fluvial Models)
7D	31	E	09-Sep-2016	Zone 3 - (Fluvial Models)
8F	33	E	09-Sep-2016	Zone 3 - (Fluvial Models)
	33	E	09-Sep-2016	Zone 3 - (Fluvial Models)
	41	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	48	NE	09-Sep-2016	Zone 3 - (Fluvial Models)
	50	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	57	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	59	N	09-Sep-2016	Zone 3 - (Fluvial Models)
	60	NE	09-Sep-2016	Zone 3 - (Fluvial Models)
	65	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	68	N	09-Sep-2016	Zone 3 - (Fluvial Models)
	113	SE	09-Sep-2016	Zone 3 - (Fluvial Models)
	118	N	09-Sep-2016	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? High

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a High (1 in 30 or greater) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Low
2	0.0	On Site	Low
3	0.0	On Site	Low
4	0.0	On Site	Low
5	0.0	On Site	Medium
6	0.0	On Site	Medium

7	0.0	On Site	Medium
8	0.0	On Site	Medium
9	0.0	On Site	High
10	0.0	On Site	Medium
11A	0.0	On Site	Medium
12	0.0	On Site	High
13	0.0	On Site	Medium
14	0.0	On Site	Low
15	0.0	On Site	Medium
16	0.0	On Site	Low
17	0.0	On Site	Low
18	0.0	On Site	Low
19	0.0	On Site	Low
20	0.0	On Site	Low
21	0.0	On Site	Medium
22	0.0	On Site	High
23A	0.0	On Site	Low
24H	6.0	S	Medium
25	8.0	N	Medium
26B	13.0	E	Low
27	15.0	S	Low
28	16.0	SW	Low
29B	18.0	E	Low
30	26.0	E	High
31E	27.0	S	Medium
32D	30.0	E	Medium
33C	30.0	E	Medium
34	30.0	E	Low
35G	30.0	E	Medium
36C	30.0	E	High
37D	31.0	E	Medium
38D	31.0	E	Medium
39F	33.0	E	Medium
40	33.0	E	Medium
41E	35.0	S	Medium
42	36.0	E	Low
43F	37.0	E	Low
44I	37.0	E	Low
45G	37.0	E	Medium
46J	38.0	E	High
47G	38.0	E	Medium
48	39.0	SW	Medium
49H	42.0	S	Medium
50I	43.0	E	Medium
51J	47.0	E	Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

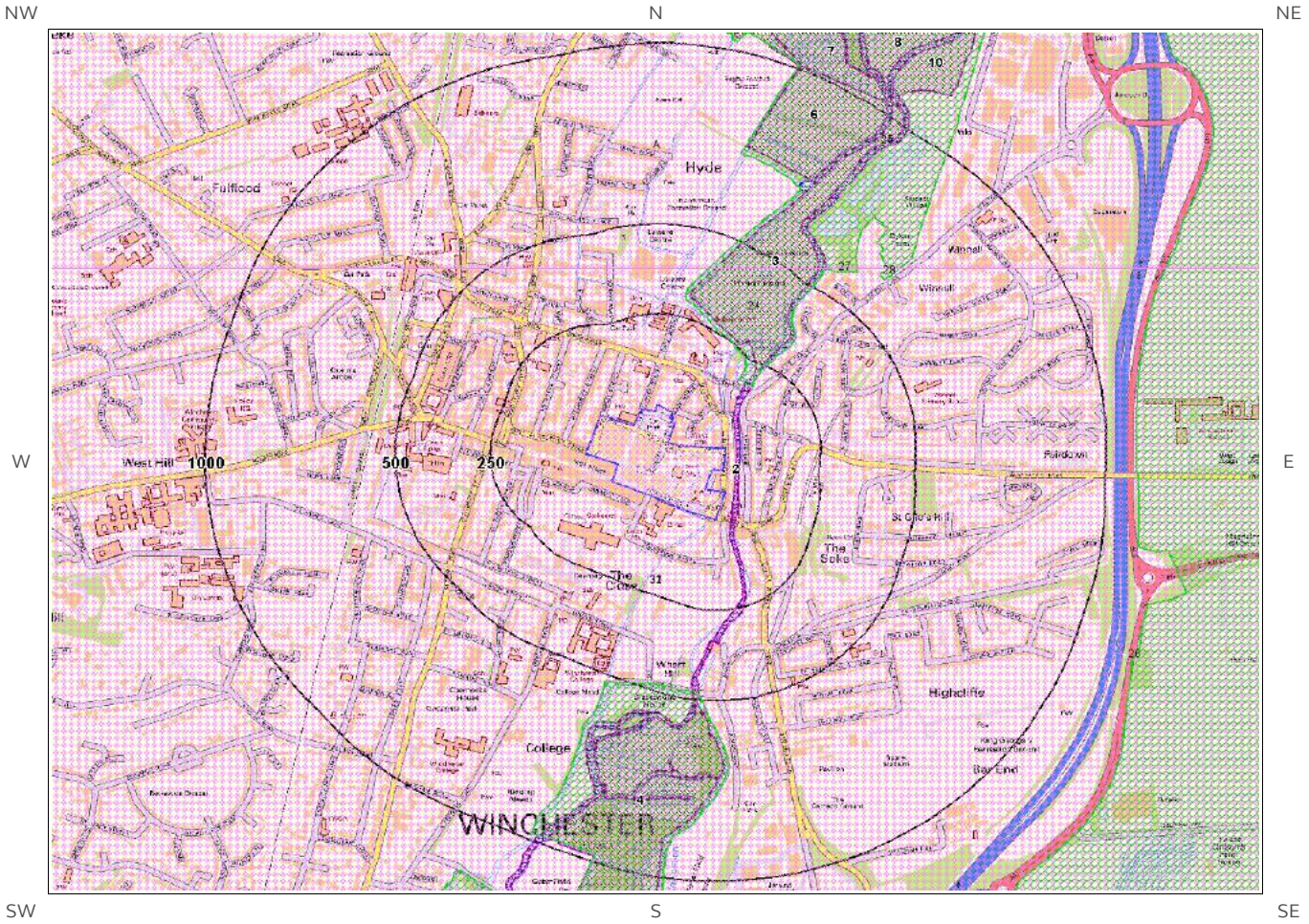
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?	High

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



Site Outline

100
250
Search Buffers (m)

AONB
National Park
SSSI
Special Protection Areas
Nitrate Vulnerable Zones
Green Belt
Environmentally Sensitive Areas
Special Areas of Conservation
World Heritage Sites
Nitrate Sensitive Areas
Ancient Woodland
National Nature Reserve
Local Nature Reserves
Ramsar Sites

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

22

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
2	24	E	River Itchen	Natural England
3	220	N	River Itchen	Natural England
4	517	S	River Itchen	Natural England
5	522	S	River Itchen	Natural England
6	739	NE	River Itchen	Natural England
7	1009	NE	River Itchen	Natural England
8	1031	NE	River Itchen	Natural England
9	1034	N	River Itchen	Natural England
10	1059	NE	River Itchen	Natural England
Not shown	1208	S	River Itchen	Natural England
Not shown	1244	S	River Itchen	Natural England
Not shown	1266	S	River Itchen	Natural England
Not shown	1297	NE	River Itchen	Natural England
Not shown	1370	S	St. Catherine's Hill	Natural England
Not shown	1520	N	River Itchen	Natural England
Not shown	1606	S	St. Catherine's Hill	Natural England
Not shown	1615	S	St. Catherine's Hill	Natural England
Not shown	1630	SW	River Itchen	Natural England
Not shown	1767	S	River Itchen	Natural England
Not shown	1769	S	River Itchen	Natural England

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1872	N	River Itchen	Natural England
Not shown	1952	NE	River Itchen	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

1

The following Special Area of Conservation (SAC) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SAC Name	Data Source
1	24	E	River Itchen	Natural England

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

7

The following National Park records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NP Name	Data Source
24	184	N	South Downs	Natural England
25	398	N	South Downs	Natural England
26	477	S	South Downs	Natural England
27	562	NE	South Downs	Natural England
28	625	NE	South Downs	Natural England
Not shown	1418	E	South Downs	Natural England
Not shown	1503	E	South Downs	Natural England

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

8

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
31	0	On Site	Existing	DEFRA
32	0	On Site	Existing	DEFRA
33A	375	N	Existing	DEFRA
34A	375	N	Existing	DEFRA
Not shown	1418	E	Existing	DEFRA
Not shown	1418	E	Existing	DEFRA
Not shown	1503	E	Existing	DEFRA
Not shown	1503	E	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell*[*] hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand*[*] hazard rating identified on the study site? Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

* This indicates an automatically generated 50m buffer and site.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
40.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

Past underground mine workings are uncommon, localised and of limited area. The rock types present in this area are such that minor mineral veins may be present within them on which it is possible that there have been attempts to work these by underground methods and/or it is possible that small scale underground extraction of other materials may have occurred. All such occurrences are likely to be restricted in size and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

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Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:
https://www.groundsure.com/terms-and-conditions-sept-2016

Groundsure Geo Insight

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Date:	**22 Dec 2016**
Reference:	**RPS-3539599**
Client:	**RPS**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	04-Jun-2013
Grid Reference:	448396,129496
Site Size:	6.12ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology		
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	2	0	10	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	8	0	0
2.3 Current Ground Workings	0	0	0	1	1

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	0	1	1	1	1
3.5 Non-Coal Mining Cavities	0	0	0	2	1
3.6 Natural Cavities	0	0	0	0	1
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

Section 4: Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Very Low
4.2 Landslides	Very Low
4.3 Ground Dissolution of Soluble Rocks	Very Low
4.4 Compressible Deposits	Moderate
4.5 Collapsible Deposits	Very Low
4.6 Running Sand	Low

Section 5: Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	2	3	17

Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	8	3	19

Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500
7.1 Tunnels	0	0	0	Not Searched
7.2 Historical Railway and Tunnel Features	0	0	29	Not Searched
7.3 Historical Railways	0	0	4	Not Searched
7.4 Active Railways	0	0	0	Not Searched

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

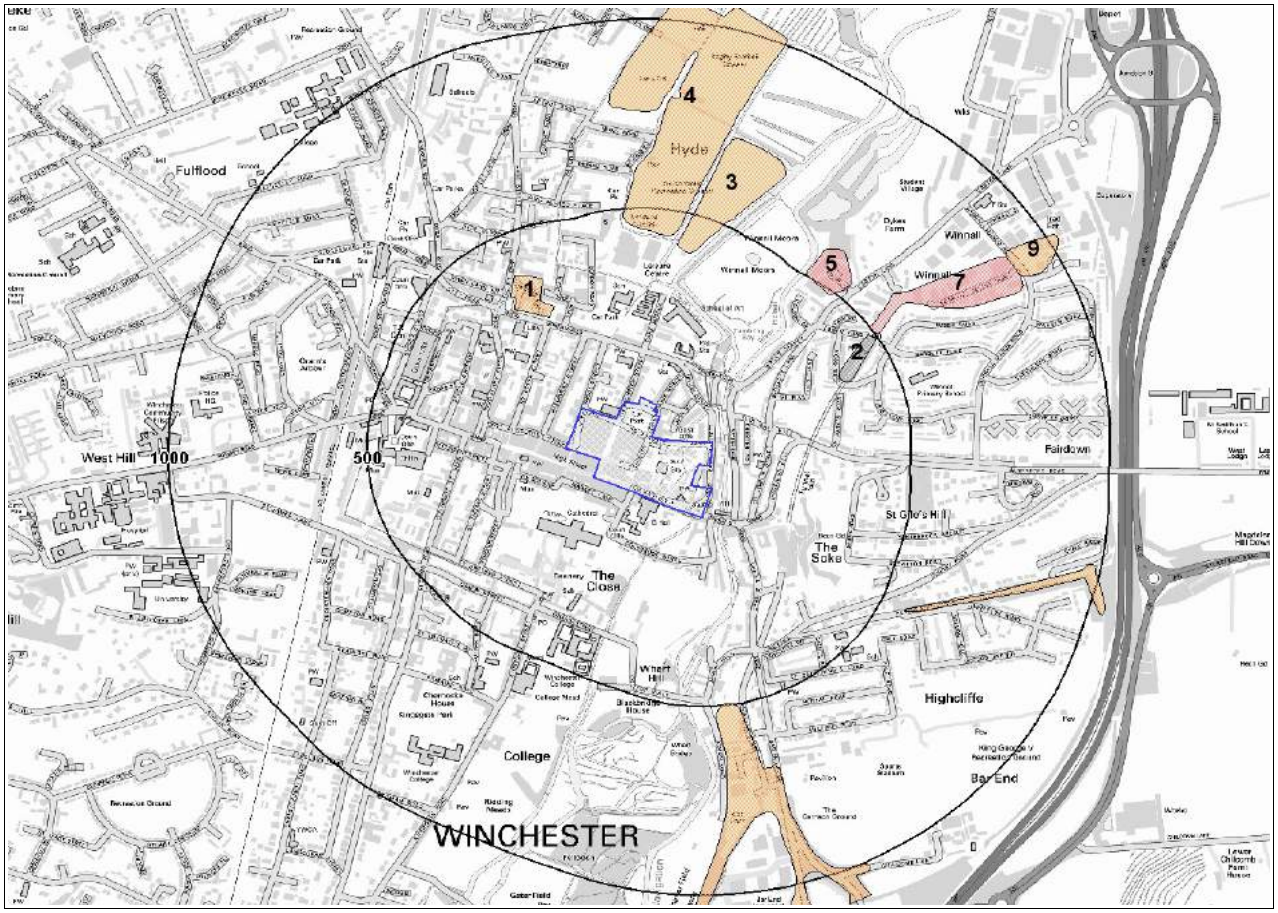
1 Geology

1.1 Artificial Ground Map

NW N NE

W E

SW S SE



Artificial Ground Legend

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

1 Geology

1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:299

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	252.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	362.0	NE	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID
3	399.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	432.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
5	490.0	NE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT
6	494.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
7	496.0	NE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

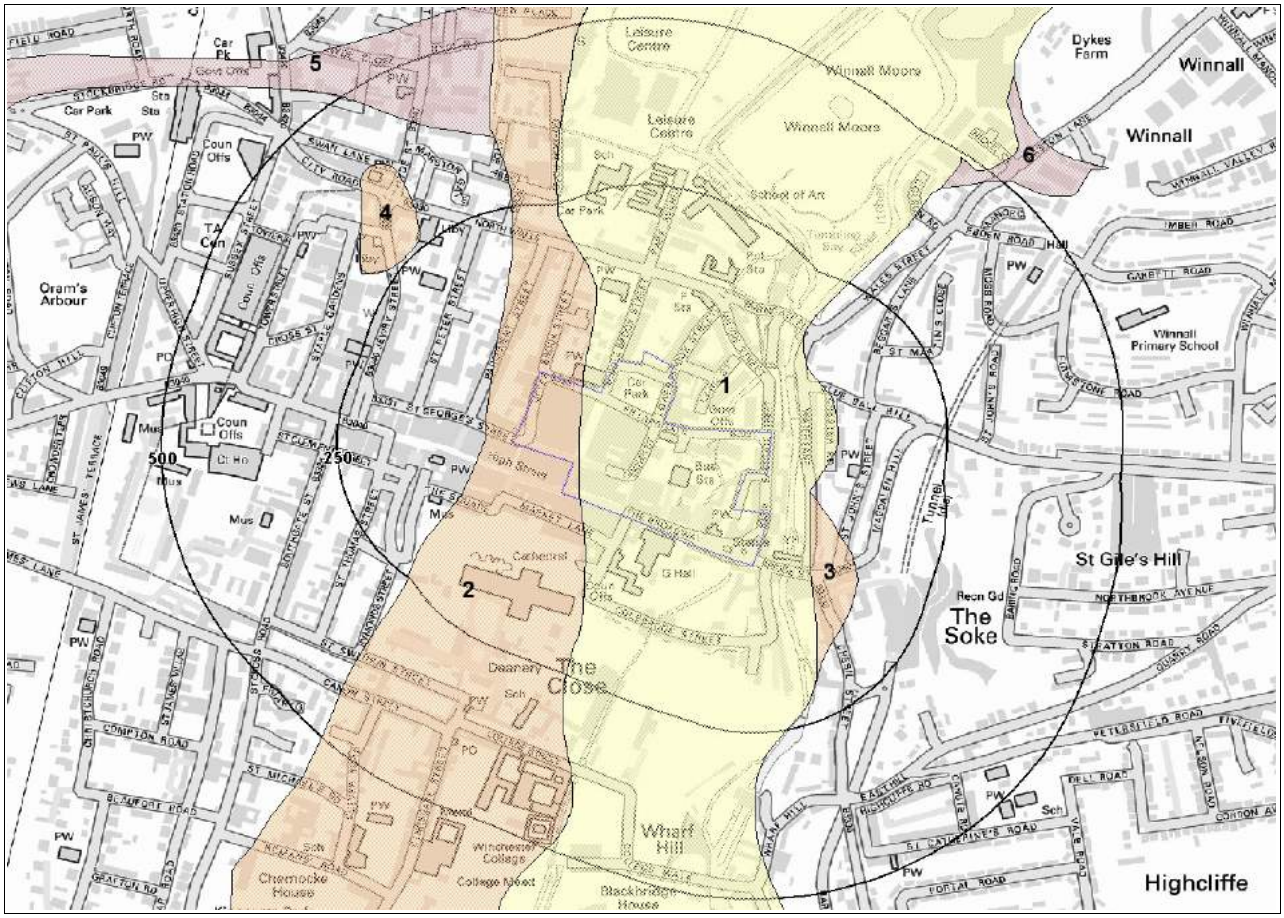
Database searched and no data found.

1.2 Superficial Deposits and Landslips Map

NW N NE

W E

SW S SE



Superficial Deposits and Landslips Legend

Site Outline

500
1000
Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	56.0	E	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	257.0	NW	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	358.0	N	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
6	439.0	NE	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Intergranular	Very High	High

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found.

---

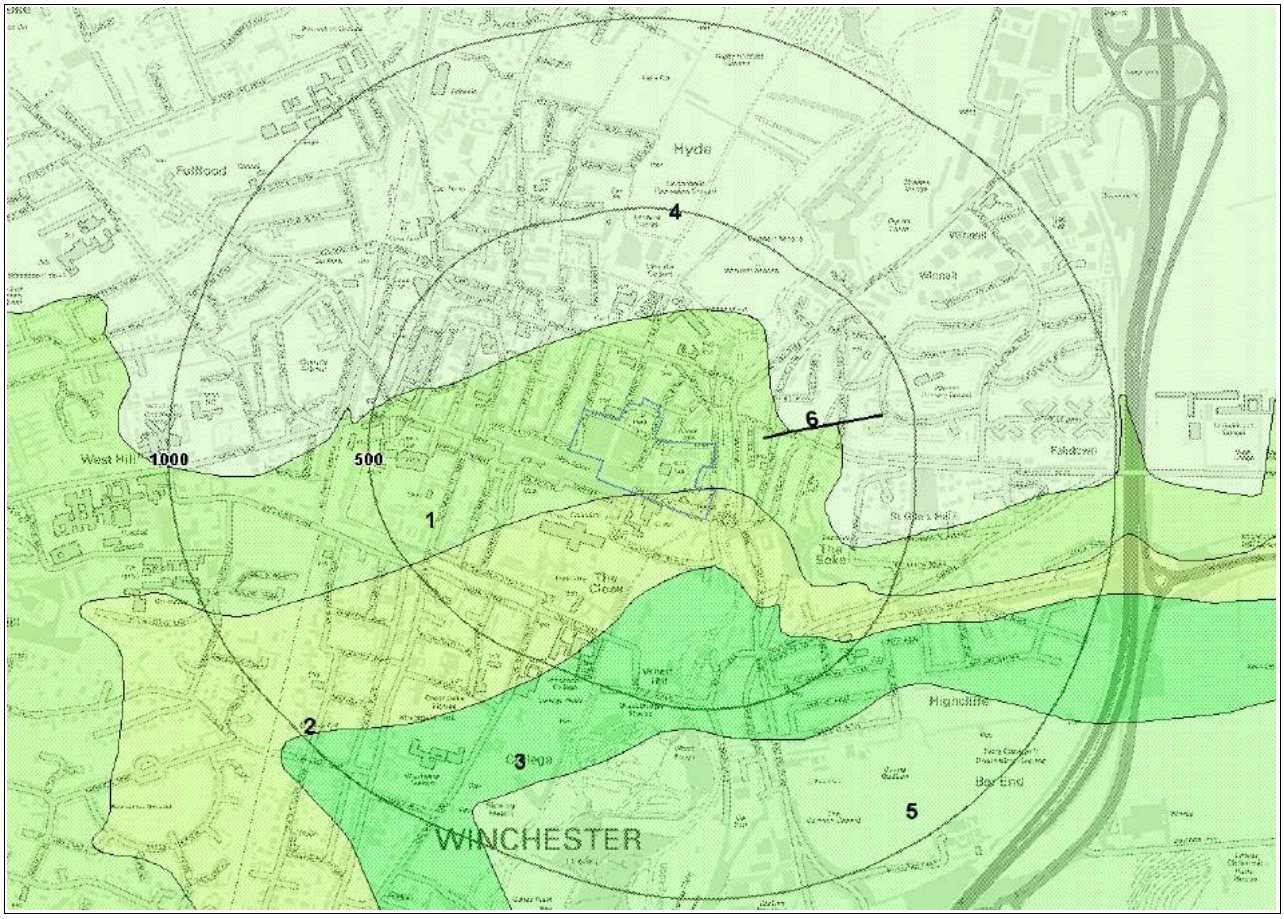
* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map

NW N NE

W E

SW S SE



Bedrock and Faults Legend

Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:299

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LECH-CHLK	Lewes Nodular Chalk Formation - Chalk	Coniacian / Turonian
2	0.0	On Site	NPCH-CHLK	New Pit Chalk Formation - Chalk	Turonian
3	125.0	S	HCK-CHLK	Holywell Nodular Chalk Formation - Chalk	Turonian / Cenomanian
4	172.0	NE	SECK-CHLK	Seaford Chalk Formation - Chalk	Santonian / Coniacian

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High
0.0	On Site	Fracture	Very High	Very High

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Category Description	Feature Description
6	119.0	E	FAULT	Fault, inferred, displacement unknown

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

* This includes an automatically generated 50m buffer zone around the site

1.4 Radon Data

1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

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1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

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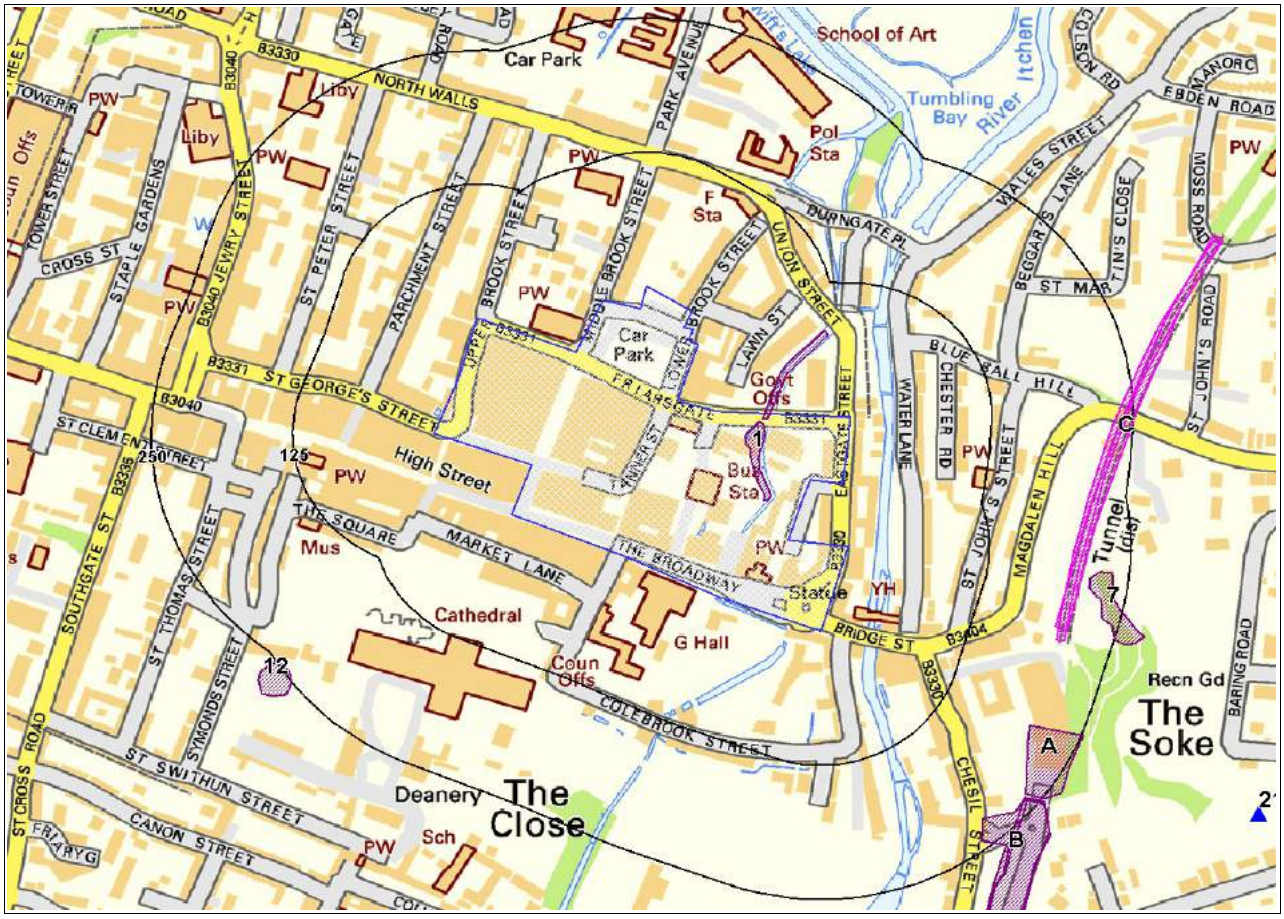
2 Ground Workings Map

NW N NE

W E

SW S SE



Ground Workings Legend

Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	448500 129462	Pond	1869
2	0.0	On Site	448522 129542	Pond	1869
3A	205.0	SE	448763 129181	Cuttings	1931
4A	205.0	SE	448763 129181	Cuttings	1938
5A	205.0	SE	448763 129181	Cuttings	1908
6A	205.0	SE	448763 129181	Cuttings	1895
7	216.0	E	448818 129324	Unspecified Ground Workings	1869
8B	226.0	SE	448717 129034	Cuttings	1908
9B	238.0	SE	448721 129054	Cuttings	1938
10B	238.0	SE	448721 129054	Cuttings	1895
11B	241.0	SE	448717 129034	Cuttings	1931
12	246.0	SW	448074 129258	Unspecified Heap	1869

2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
13C	197.0	E	448823 129488	Tunnel	1908
14C	197.0	E	448823 129488	Tunnel	1895
15C	197.0	E	448823 129488	Tunnel	1938
16C	197.0	E	448823 129488	Tunnel	1931
17C	197.0	E	448814 129481	Tunnel	1989
18C	197.0	E	448814 129481	Tunnel	1957
19C	197.0	E	448814 129481	Tunnel	1981
20C	197.0	E	448814 129481	Tunnel	1968

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
21	423.0	SE	448943 129132	Chalk	Giles Hill Lime Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	656.0	NE	448981 130024	Chalk	Winnall Chalk Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

3 Mining, Extraction & Natural Cavities Map

NW N NE

W E

SW S SE

Mining, Extraction and Natural Cavities Legend

3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	40.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
2	65.0	NE	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
3	411.0	N	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
4	599.0	NE	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? Yes

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
5	314.0	W	447900 129500	Winchester, Hampshire	-	Chalk Group	Chalk
6	325.0	NW	448000 129800	Winchester, Hampshire	River Terrace Deposits	Chalk Group	Chalk
7	607.0	NW	447800 130000	Winchester, Hampshire	-	Chalk Group	Chalk

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? Yes

The following Natural Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Superficial Deposits	Bedrock Deposits	Cavity Type and Number
Not shown	875.0	N	448400 130500	Alluvium, River Terrace Deposits	Chalk Group	Solution Pipe x 10

3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.10 Clay Mining

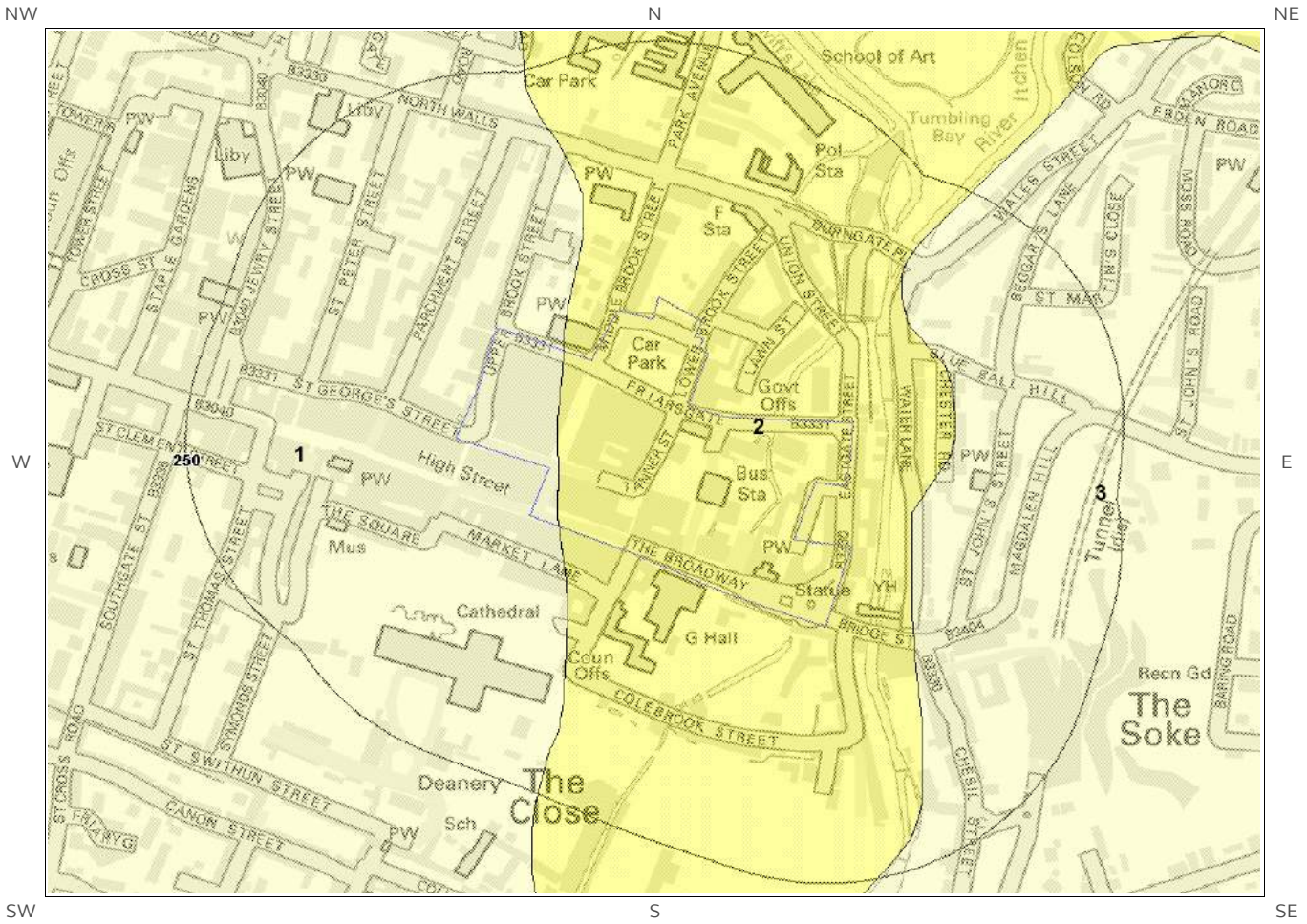
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

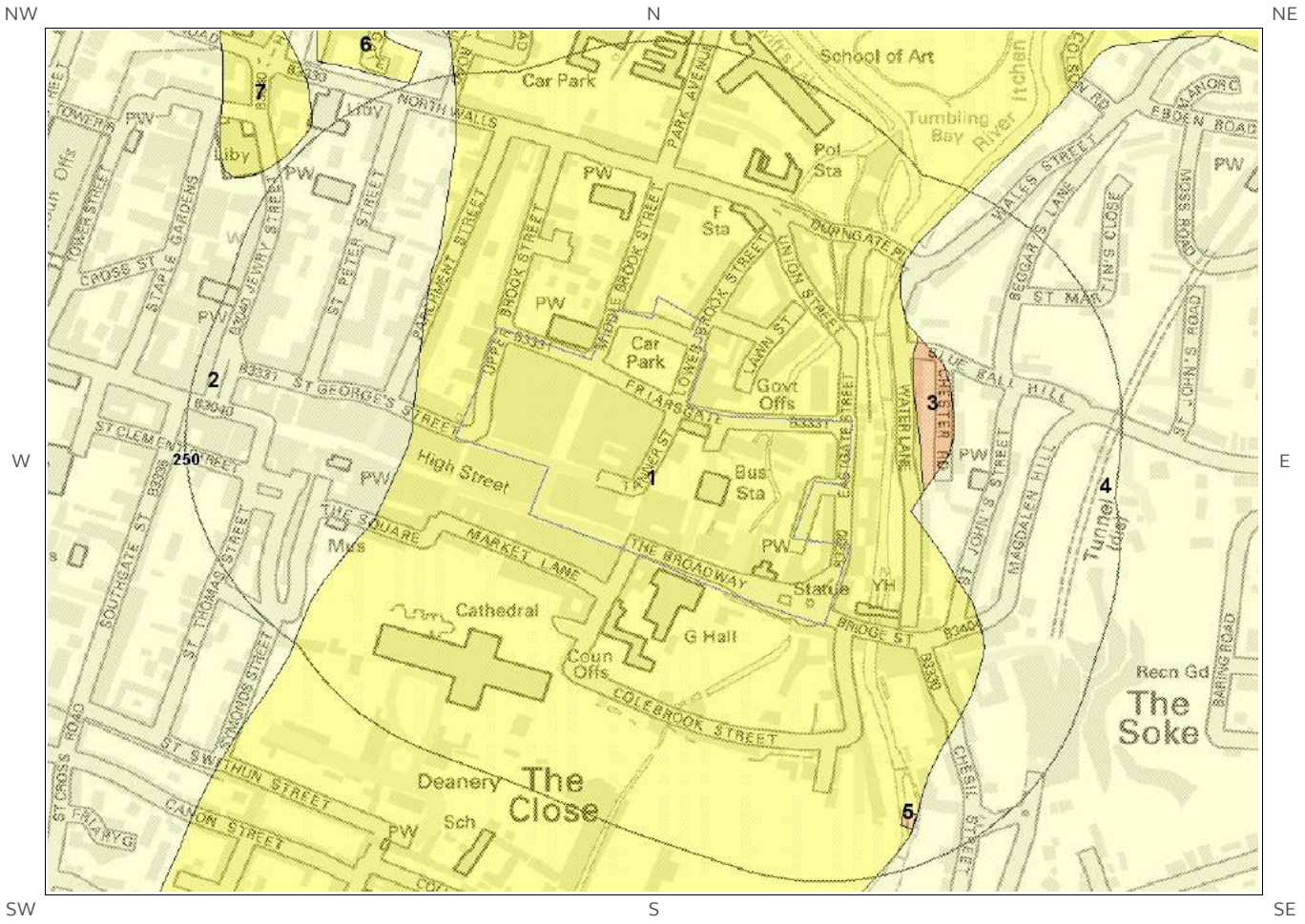
Database searched and no data found.

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map



4.2 Landslides Map



Landslides Legend

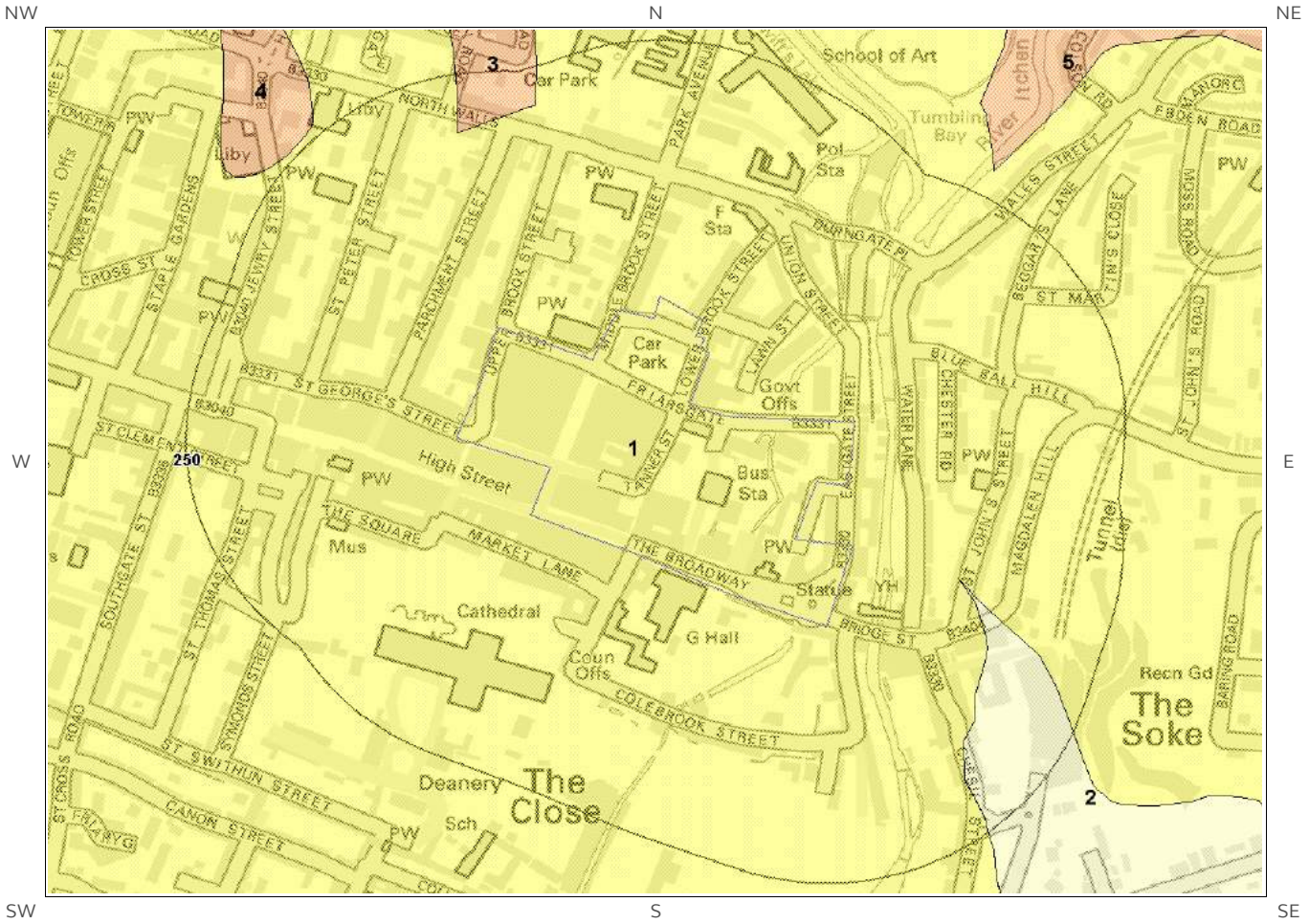
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.3 Ground Dissolution Soluble Rocks Map



Ground Dissolution Soluble Rocks Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

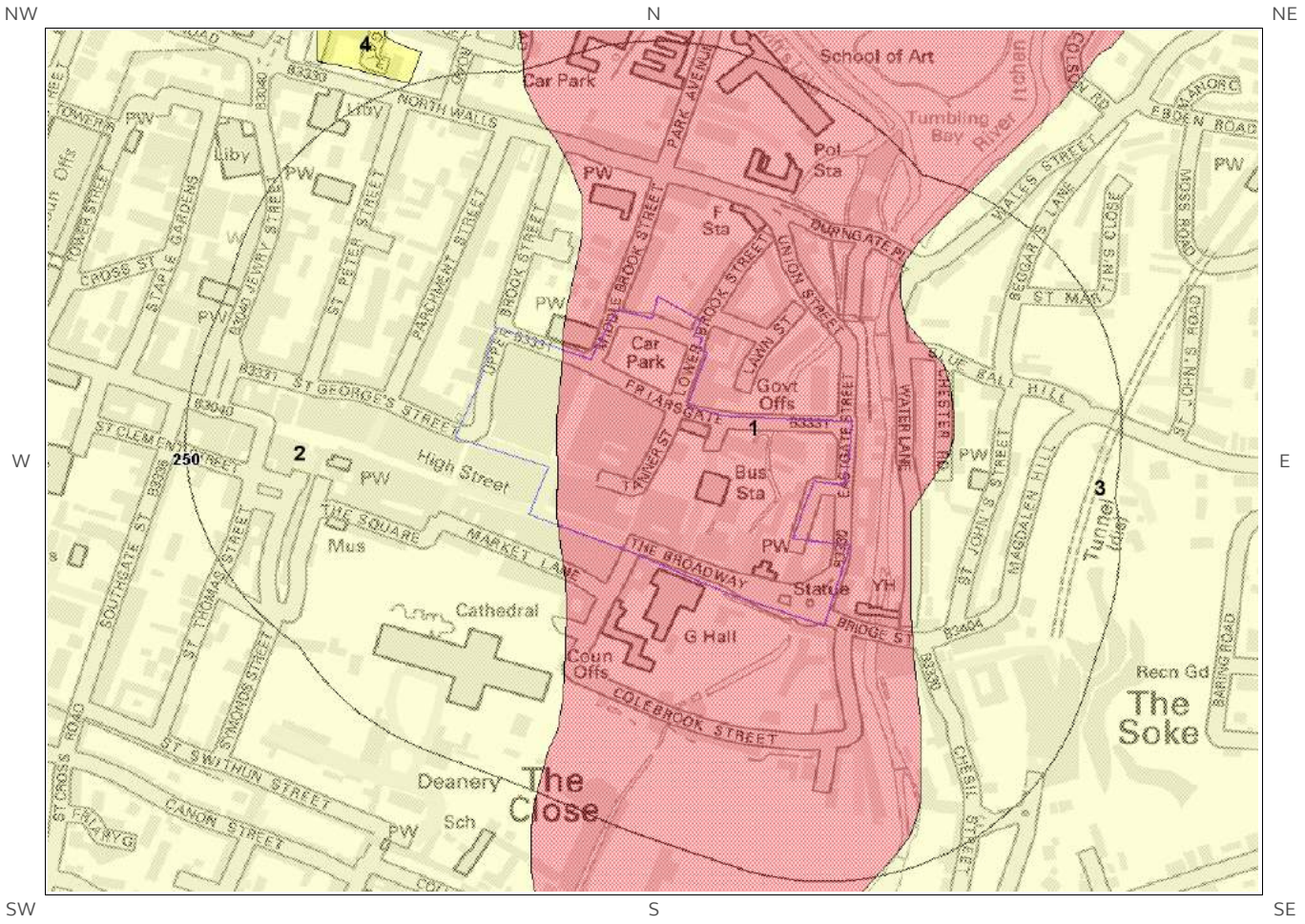
Very Low

Low

Moderate

High

4.4 Compressible Deposits Map



Compressible Deposits Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

Very Low

Low

Moderate

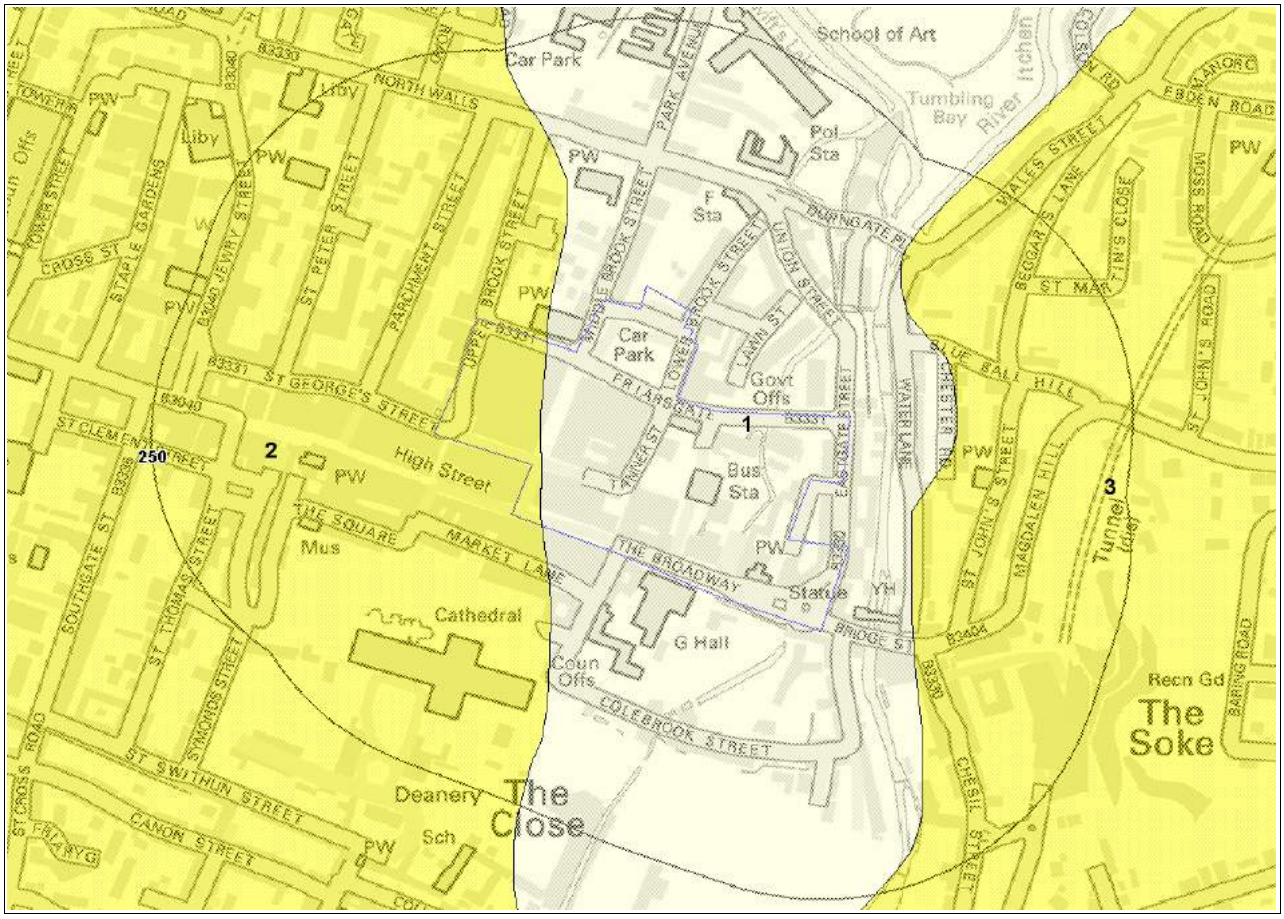
High

4.5 Collapsible Deposits Map

NW N NE

W E

SW S SE



Collapsible Deposits Legend

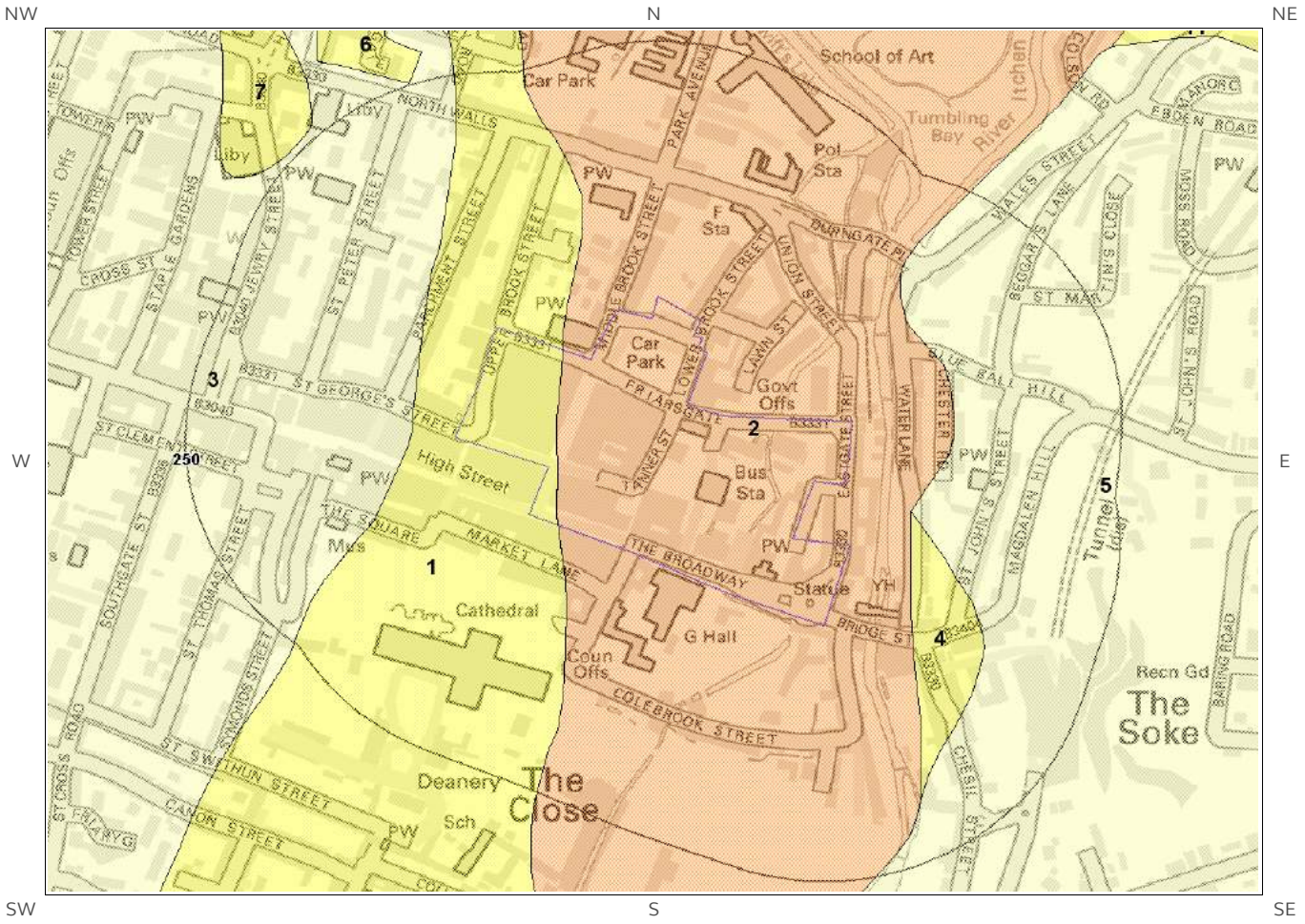
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.6 Running Sand Map



Running Sand Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site*[*] boundary? Moderate

4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	40.0	W	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

* This includes an automatically generated 50m buffer zone around the site

4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
2	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

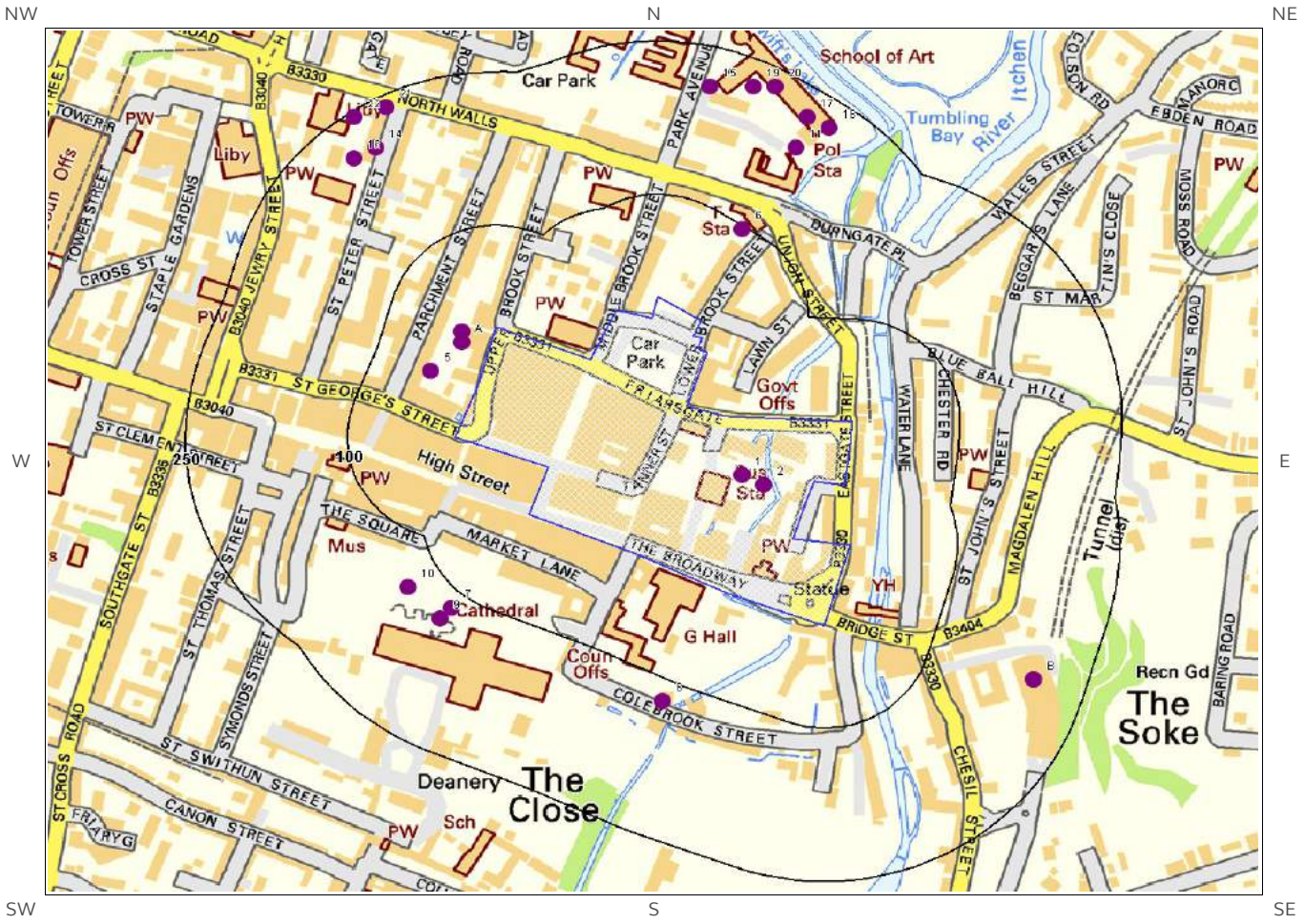
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
3	40.0	W	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend

Site Outline

Borehole Locations

125
250
Search Buffers (m)

5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary: 22

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	448480 129450	SU42NE64	6.0	WINCHESTER BH2
2	0.0	On Site	448500 129440	SU42NE63	9.5	WINCHESTER BH1
3A	26.0	W	448220 129580	SU42NE14	18.0	CEL/73/008 2 WINCHESTER
4A	29.0	W	448220 129590	SU42NE13	14.5	CEL/73/008 1 WINCHESTER
5	46.0	W	448191 129552	SU42NE210	12.2	71A PARCHMENT STREET WINCHESTER 1
6	96.0	NE	448480 129690	SU42NE148	22.86	WINCHESTER BATHS
7	117.0	SW	448210 129320	SU42NE20	5.65	WINCHESTER CATHEDRAL BH2
8	122.0	SW	448406 129229	SU42NE169	6.0	ABBEY MILL HOUSE WINCHESTER 1
9	132.0	SW	448200 129310	SU42NE21	6.0	WINCHESTER CATHEDRAL BH3
10	134.0	SW	448170 129340	SU42NE19	10.05	WINCHESTER CATHEDRAL BH1
11	190.0	NE	448530 129770	SU42NE130	15.24	WINCHESTER 8
12B	201.0	E	448750 129250	SU42NE131	7.62	SNOW WHITE ELECTRIC LAUNDRY WINCHESTER
13B	201.0	E	448750 129250	SU42NE132	6.32	SNOW WHITE ELECTRIC LAUNDRY WINCHESTER
14	208.0	NW	448140 129770	SU42NE17	15.15	NORTH WALLS WINCHESTER BH3
15	211.0	N	448450 129830	SU42NE123	15.24	WINCHESTER 1
16	211.0	NW	448120 129760	SU42NE18	20.0	NORTH WALLS WINCHESTER BH4
17	221.0	NE	448540 129800	SU42NE128	15.24	WINCHESTER 6
18	223.0	NE	448560 129790	SU42NE129	18.29	WINCHESTER 7
19	223.0	NE	448490 129830	SU42NE124	15.09	WINCHESTER 2
20	232.0	NE	448510 129830	SU42NE127	18.29	WINCHESTER 5
21	238.0	NW	448150 129810	SU42NE15	20.15	NORTH WALLS WINCHESTER BH1
22	244.0	NW	448120 129800	SU42NE16	15.15	NORTH WALLS WINCHESTER BH2

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/411973
#2: scans.bgs.ac.uk/sobi_scans/boreholes/411972
#3A: scans.bgs.ac.uk/sobi_scans/boreholes/411923
#4A: scans.bgs.ac.uk/sobi_scans/boreholes/411922
#5: scans.bgs.ac.uk/sobi_scans/boreholes/17525396
#6: scans.bgs.ac.uk/sobi_scans/boreholes/412057
#7: scans.bgs.ac.uk/sobi_scans/boreholes/411929
#8: scans.bgs.ac.uk/sobi_scans/boreholes/15019916
#9: scans.bgs.ac.uk/sobi_scans/boreholes/411930
#10: scans.bgs.ac.uk/sobi_scans/boreholes/411928
#11: scans.bgs.ac.uk/sobi_scans/boreholes/412039
#12B: scans.bgs.ac.uk/sobi_scans/boreholes/412040
#13B: scans.bgs.ac.uk/sobi_scans/boreholes/412041
#14: scans.bgs.ac.uk/sobi_scans/boreholes/411926
#15: scans.bgs.ac.uk/sobi_scans/boreholes/412032
#16: scans.bgs.ac.uk/sobi_scans/boreholes/411927
#17: scans.bgs.ac.uk/sobi_scans/boreholes/412037
#18: scans.bgs.ac.uk/sobi_scans/boreholes/412038
#19: scans.bgs.ac.uk/sobi_scans/boreholes/412033
#20: scans.bgs.ac.uk/sobi_scans/boreholes/412036
#21: scans.bgs.ac.uk/sobi_scans/boreholes/411924
#22: scans.bgs.ac.uk/sobi_scans/boreholes/411925

6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 30

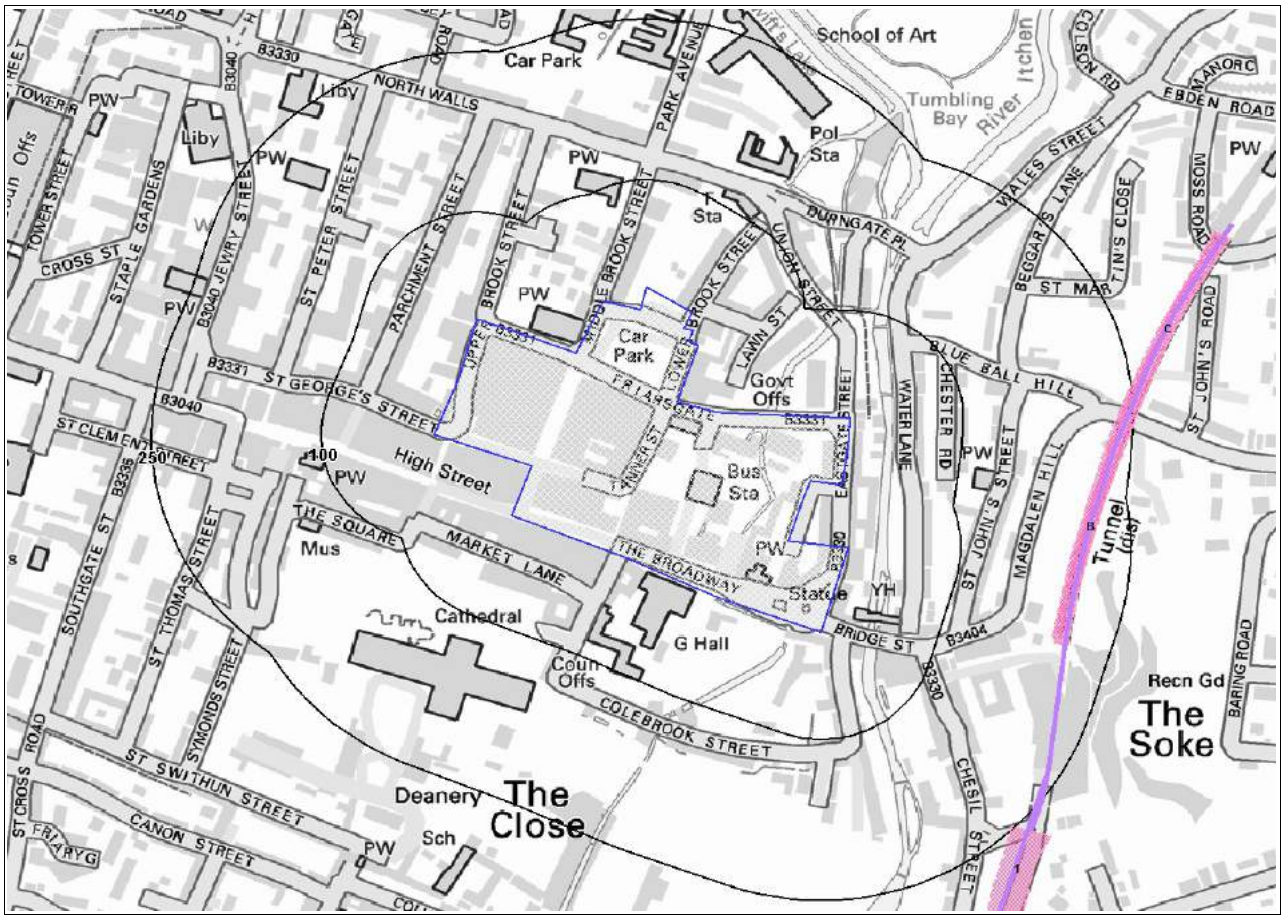
For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
35.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
40.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
42.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
56.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
57.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
65.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
94.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
104.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
125.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
151.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
172.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
191.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
192.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
193.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
193.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
208.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
243.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
250.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

7 Railways and Tunnels Map

NW N NE



W E

SW S SE

Railways and Tunnels Legend

- Site Outline
- Search Buffers (m): 250, 500
- Underground or Partially Underground Railway / Subway System
- Railway Tunnel (OS Mapping)
- Abandoned or Dismantled Railway (OpenStreetMap)
- Railway Track (OS Mapping)
- Railway Track (OpenStreetMap)
- High Speed 2
- High Speed 2 Revised Proposed Route
- Crossrail 1
- Railway and/or Tunnel Feature from Historical Mapping

7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
20A	194	E	448818 129487	Tunnel	1898
21A	194	E	448818 129487	Tunnel	1898
2A	197	E	448822 129483	Tunnel	1939
3A	197	E	448822 129483	Tunnel	1932
4A	197	E	448822 129483	Tunnel	1909
22A	197	E	448823 129488	Tunnel	1931

ID	Distance (m)	Direction	NGR	Details	Date
23A	197	E	448823 129488	Tunnel	1938
24A	197	E	448823 129488	Tunnel	1895
25A	197	E	448823 129488	Tunnel	1908
26A	197	E	448814 129481	Tunnel	1989
27A	197	E	448814 129481	Tunnel	1957
28A	197	E	448814 129481	Tunnel	1981
29A	197	E	448814 129481	Tunnel	1968
5A	199	E	448818 129480	Tunnel	1952
6A	199	E	448818 129480	Tunnel	1967
7A	199	E	448818 129480	Tunnel	1960
8B	199	E	448792 129396	Disused Tunnel	1993
9B	199	E	448792 129396	Tunnel	1967
10B	199	E	448792 129396	Tunnel	1952
11B	200	E	448792 129397	Disused Tunnel	1985
12B	200	E	448792 129397	Disused Tunnel	1988
13B	200	E	448792 129397	Disused Tunnel	1989
14C	238	E	448866 129584	Tunnel	1987
15C	240	E	448865 129587	Tunnel	1963
16C	240	E	448865 129587	Disused Tunnel	1991
17C	240	E	448865 129587	Tunnel	1974
18C	240	E	448865 129587	Tunnel	1967
19C	240	E	448865 129587	Tunnel	1952
1	247	SE	448726 129078	Railway Sidings	1908

Any records that have been identified are represented on the Railways and Tunnels Map.

7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Status
203	E	Abandoned
208	E	Abandoned
239	SE	Abandoned
250	SE	Abandoned

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

Crossrail route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

RPS

R P S PLANNING & DEVELOPMENT,2420 THE QUADRANT, AZTEC WEST,
BRISTOL, BS32 4AQ

Report Reference: RPS-3539599

Your Reference: JER1070_-_Central_Winchester_

Report Date 22 Dec 2016

Report Delivery Method: Email - pdf

Groundsure Geo Insight

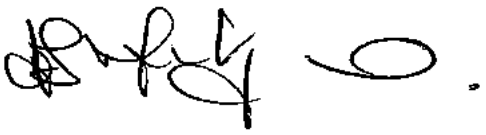
Address: WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Geoinsight

Groundsure Geo Insight

Address:	**WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ**
Date:	**22 Dec 2016**
Reference:	**RPS-3539599**
Client:	**RPS**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	04-Jun-2013
Grid Reference:	448396,129496
Site Size:	6.12ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology		
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	2	0	10	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	8	0	0
2.3 Current Ground Workings	0	0	0	1	1

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	0	1	1	1	1
3.5 Non-Coal Mining Cavities	0	0	0	2	1
3.6 Natural Cavities	0	0	0	0	1
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

Section 4: Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Very Low
4.2 Landslides	Very Low
4.3 Ground Dissolution of Soluble Rocks	Very Low
4.4 Compressible Deposits	Moderate
4.5 Collapsible Deposits	Very Low
4.6 Running Sand	Low

Section 5: Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	2	3	17

Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	8	3	19

Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500
7.1 Tunnels	0	0	0	Not Searched
7.2 Historical Railway and Tunnel Features	0	0	29	Not Searched
7.3 Historical Railways	0	0	4	Not Searched
7.4 Active Railways	0	0	0	Not Searched

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

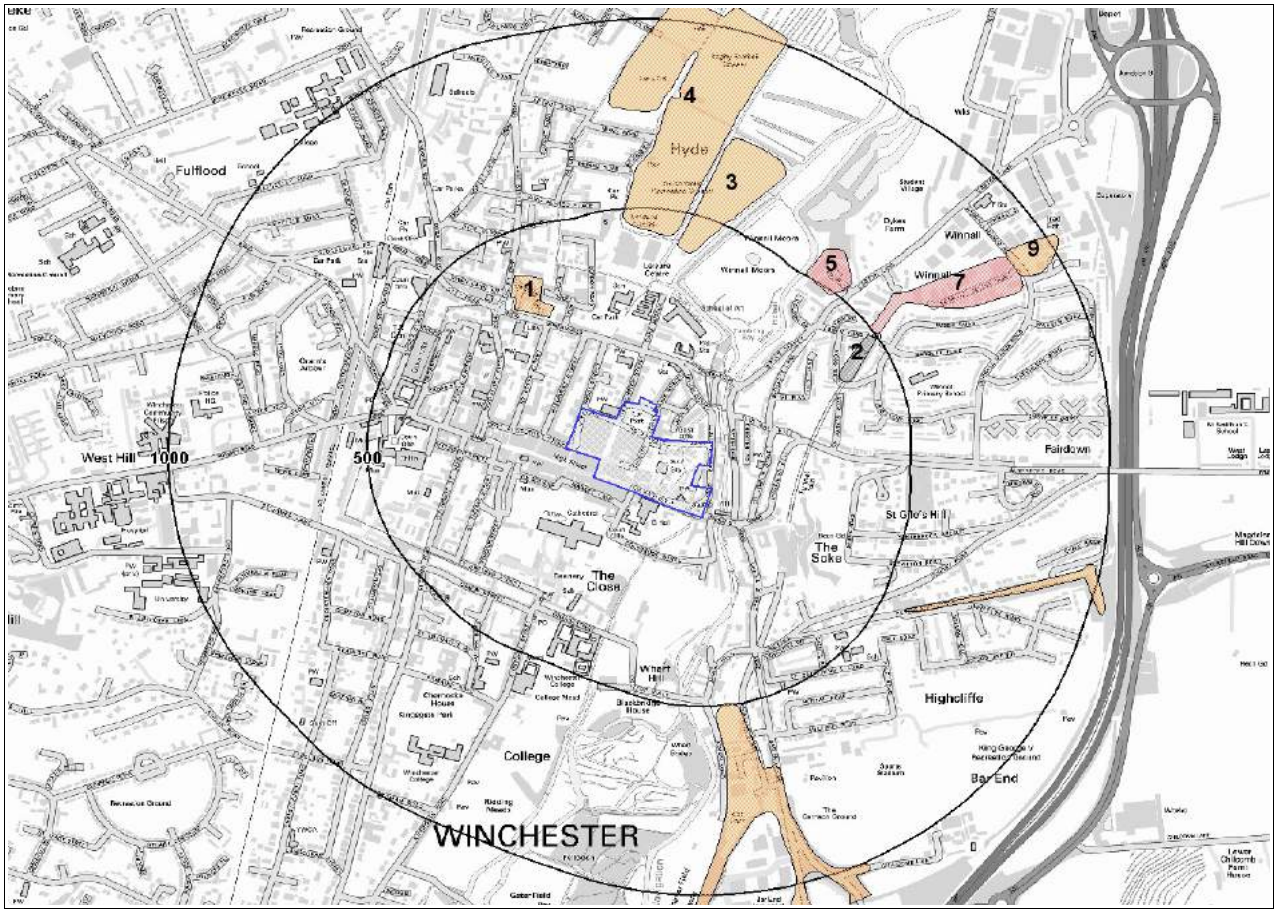
1 Geology

1.1 Artificial Ground Map

NW N NE

W E

SW S SE



Artificial Ground Legend

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

1 Geology

1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:299

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	252.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	362.0	NE	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID
3	399.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	432.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
5	490.0	NE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT
6	494.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
7	496.0	NE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

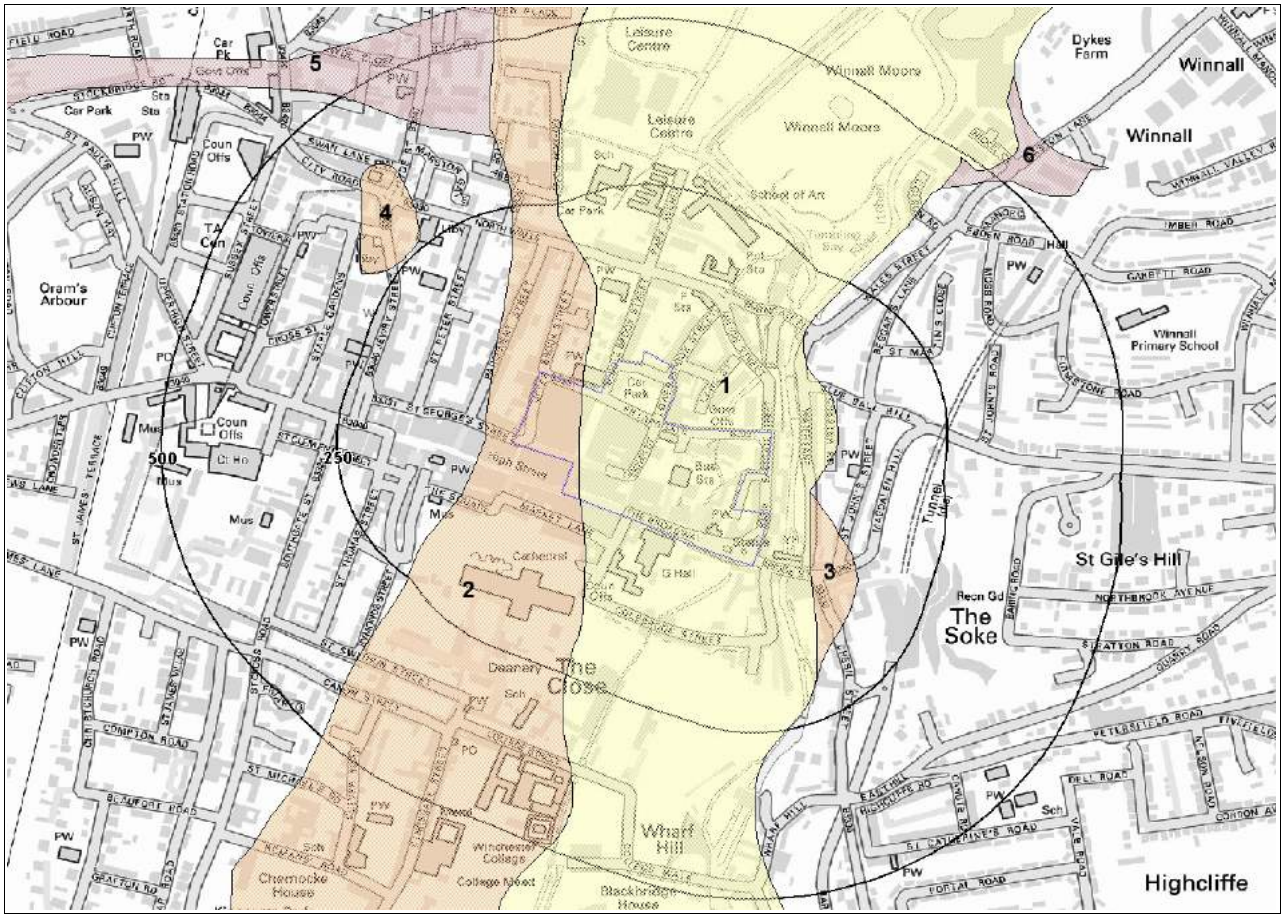
Database searched and no data found.

1.2 Superficial Deposits and Landslips Map

NW N NE

W E

SW S SE



Superficial Deposits and Landslips Legend

Site Outline

500
1000
Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	56.0	E	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	257.0	NW	RTD3	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	358.0	N	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
6	439.0	NE	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Intergranular	Very High	High

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found.

---

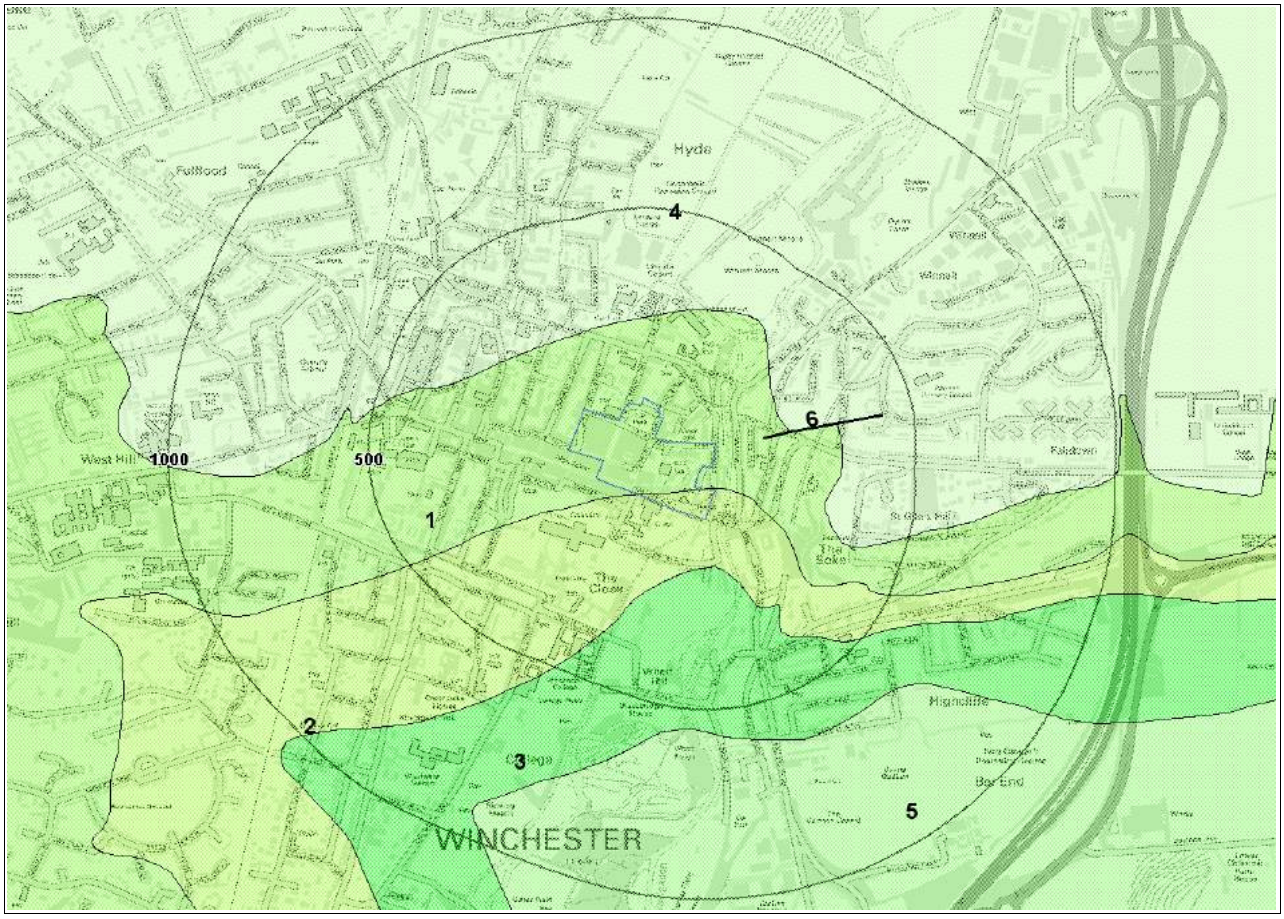
* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map

NW N NE

W E

SW S SE



Bedrock and Faults Legend

Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:299

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LECH-CHLK	Lewes Nodular Chalk Formation - Chalk	Coniacian / Turonian
2	0.0	On Site	NPCH-CHLK	New Pit Chalk Formation - Chalk	Turonian
3	125.0	S	HCK-CHLK	Holywell Nodular Chalk Formation - Chalk	Turonian / Cenomanian
4	172.0	NE	SECK-CHLK	Seaford Chalk Formation - Chalk	Santonian / Coniacian

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High
0.0	On Site	Fracture	Very High	Very High

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Category Description	Feature Description
6	119.0	E	FAULT	Fault, inferred, displacement unknown

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

* This includes an automatically generated 50m buffer zone around the site

1.4 Radon Data

1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

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1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

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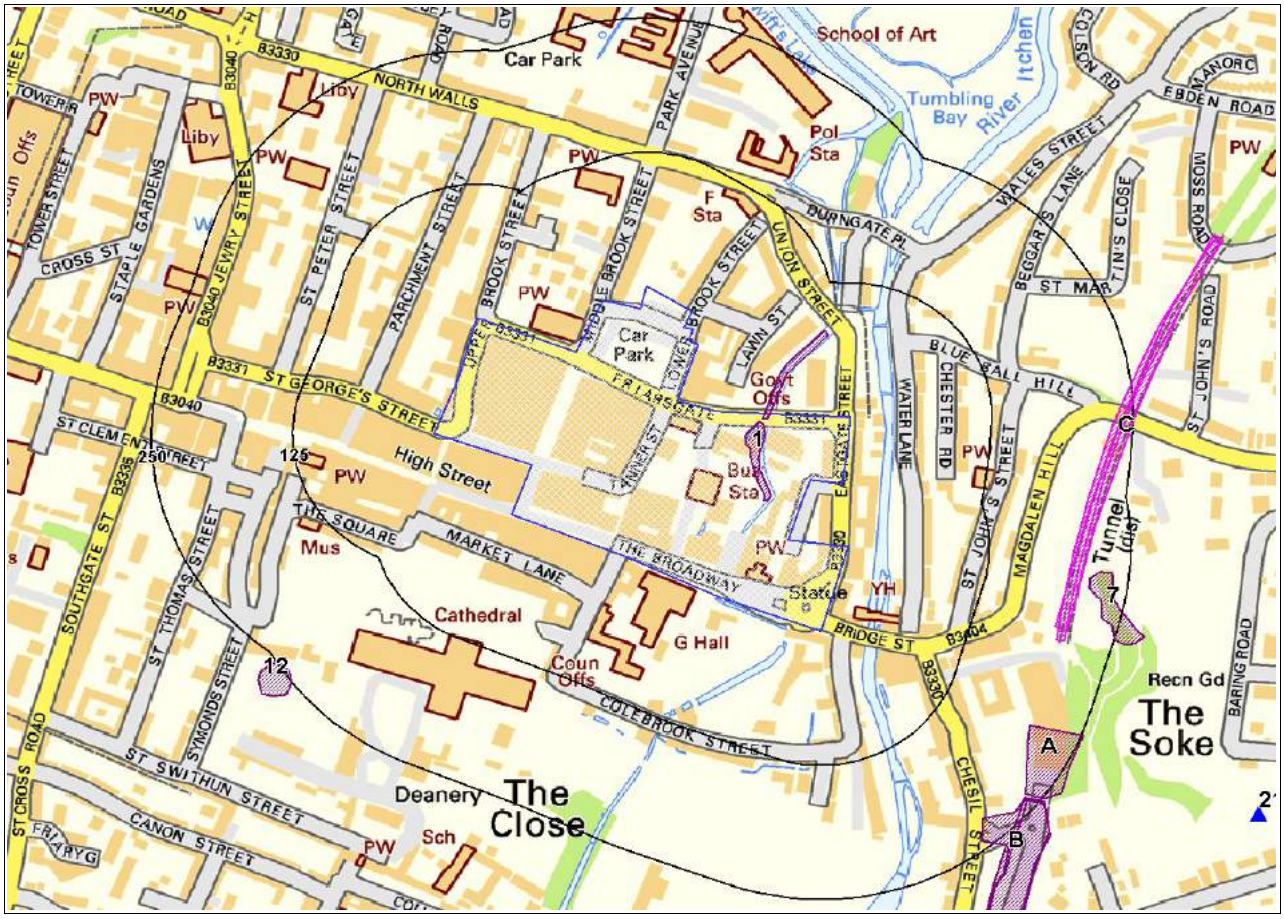
2 Ground Workings Map

NW N NE

W E

SW S SE



Ground Workings Legend

Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	448500 129462	Pond	1869
2	0.0	On Site	448522 129542	Pond	1869
3A	205.0	SE	448763 129181	Cuttings	1931
4A	205.0	SE	448763 129181	Cuttings	1938
5A	205.0	SE	448763 129181	Cuttings	1908
6A	205.0	SE	448763 129181	Cuttings	1895
7	216.0	E	448818 129324	Unspecified Ground Workings	1869
8B	226.0	SE	448717 129034	Cuttings	1908
9B	238.0	SE	448721 129054	Cuttings	1938
10B	238.0	SE	448721 129054	Cuttings	1895
11B	241.0	SE	448717 129034	Cuttings	1931
12	246.0	SW	448074 129258	Unspecified Heap	1869

2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
13C	197.0	E	448823 129488	Tunnel	1908
14C	197.0	E	448823 129488	Tunnel	1895
15C	197.0	E	448823 129488	Tunnel	1938
16C	197.0	E	448823 129488	Tunnel	1931
17C	197.0	E	448814 129481	Tunnel	1989
18C	197.0	E	448814 129481	Tunnel	1957
19C	197.0	E	448814 129481	Tunnel	1981
20C	197.0	E	448814 129481	Tunnel	1968

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
21	423.0	SE	448943 129132	Chalk	Giles Hill Lime Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	656.0	NE	448981 130024	Chalk	Winnall Chalk Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

3 Mining, Extraction & Natural Cavities Map

NW N NE

W E

SW S SE

Mining, Extraction and Natural Cavities Legend

3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	40.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
2	65.0	NE	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
3	411.0	N	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
4	599.0	NE	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? Yes

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
5	314.0	W	447900 129500	Winchester, Hampshire	-	Chalk Group	Chalk
6	325.0	NW	448000 129800	Winchester, Hampshire	River Terrace Deposits	Chalk Group	Chalk
7	607.0	NW	447800 130000	Winchester, Hampshire	-	Chalk Group	Chalk

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? Yes

The following Natural Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Superficial Deposits	Bedrock Deposits	Cavity Type and Number
Not shown	875.0	N	448400 130500	Alluvium, River Terrace Deposits	Chalk Group	Solution Pipe x 10

3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.10 Clay Mining

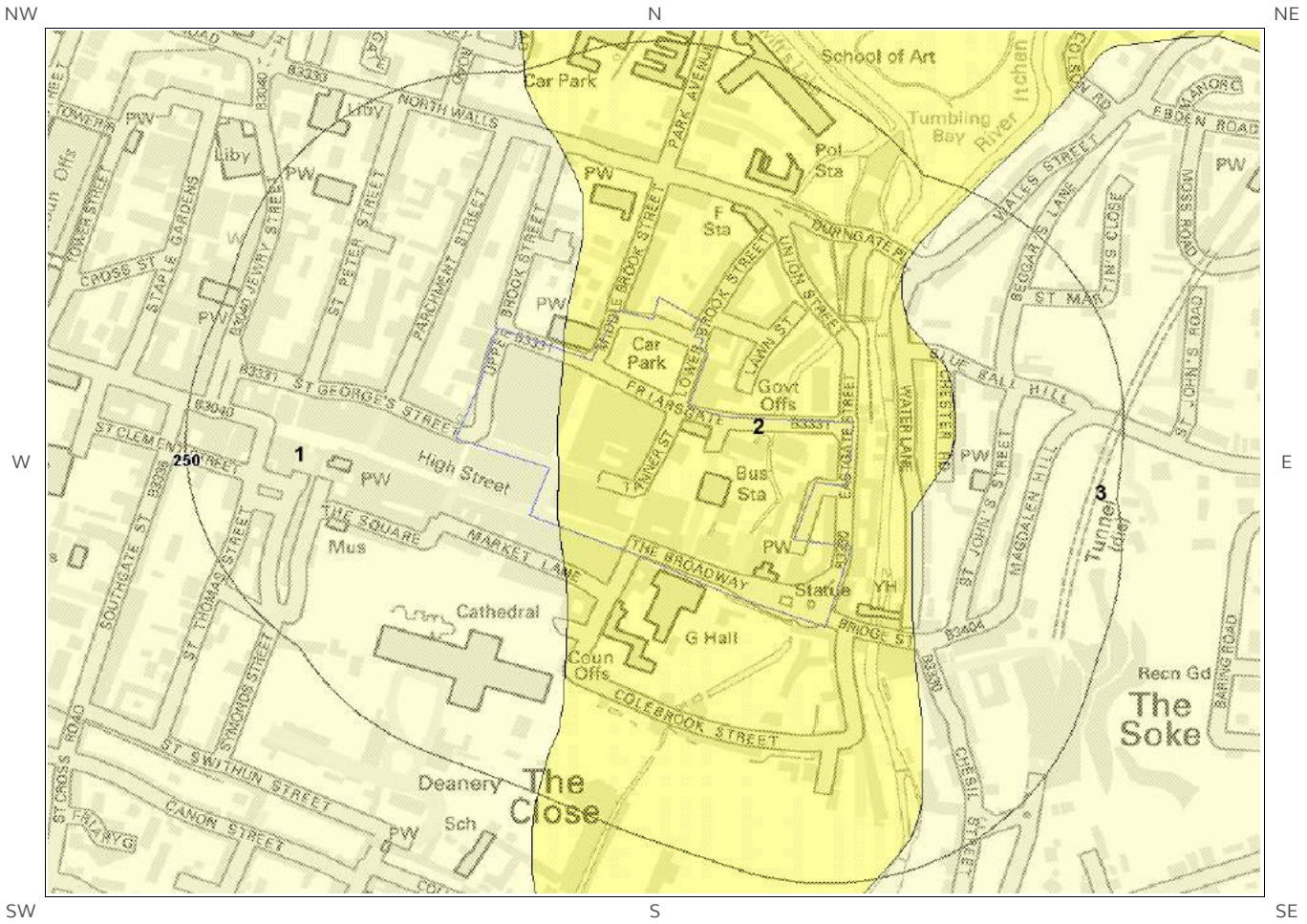
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

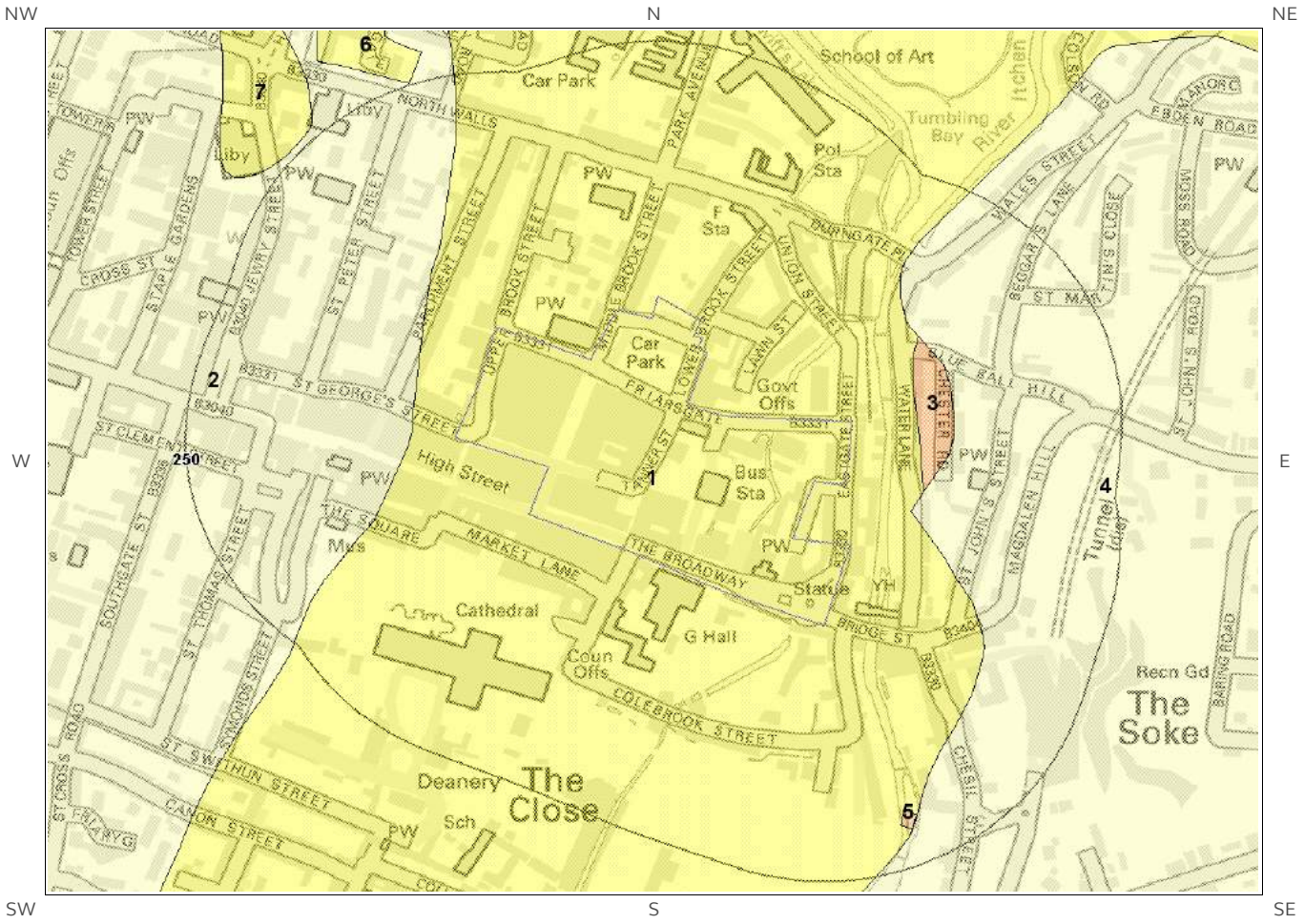
Database searched and no data found.

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map



4.2 Landslides Map



Landslides Legend

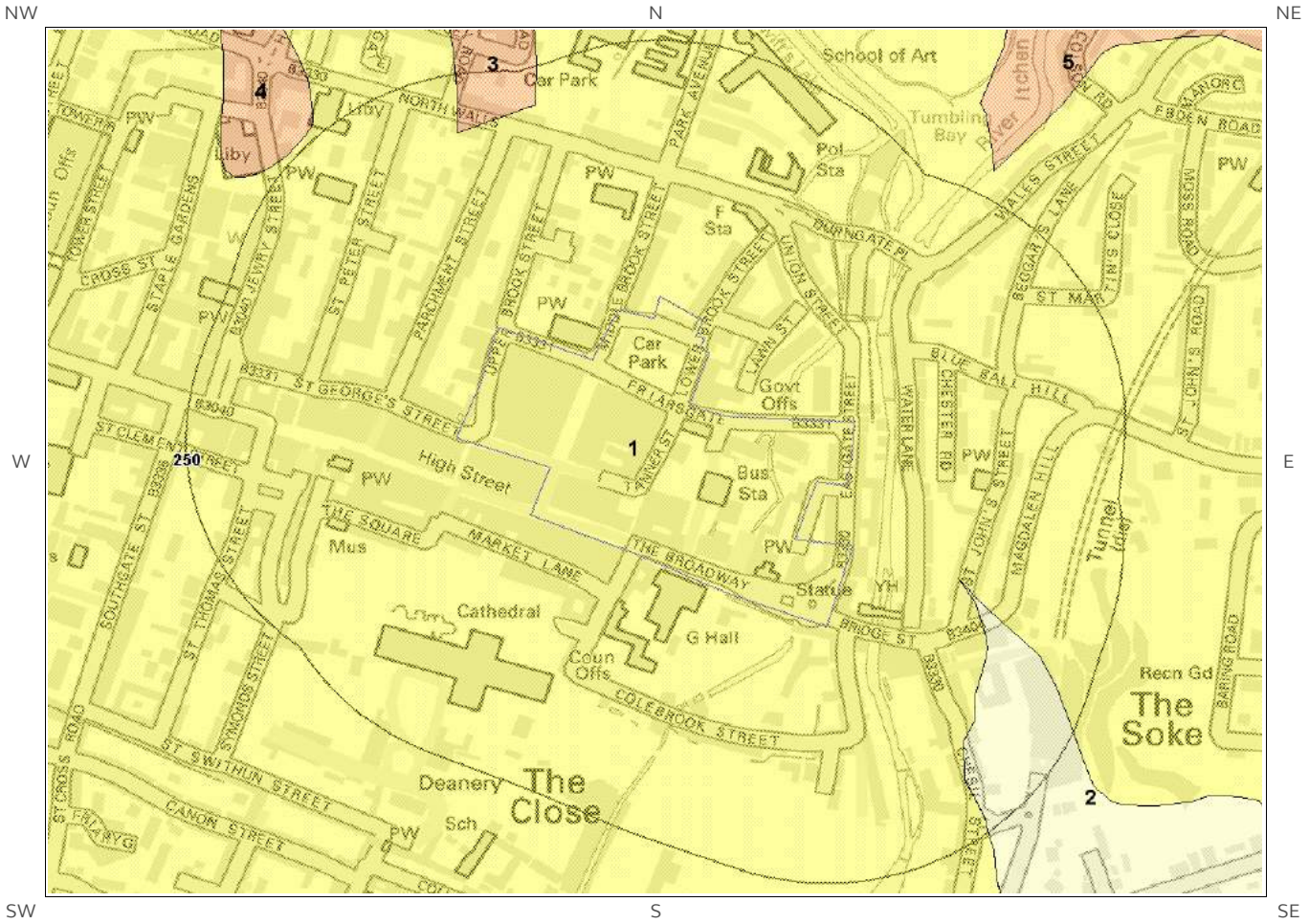
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.3 Ground Dissolution Soluble Rocks Map



Ground Dissolution Soluble Rocks Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

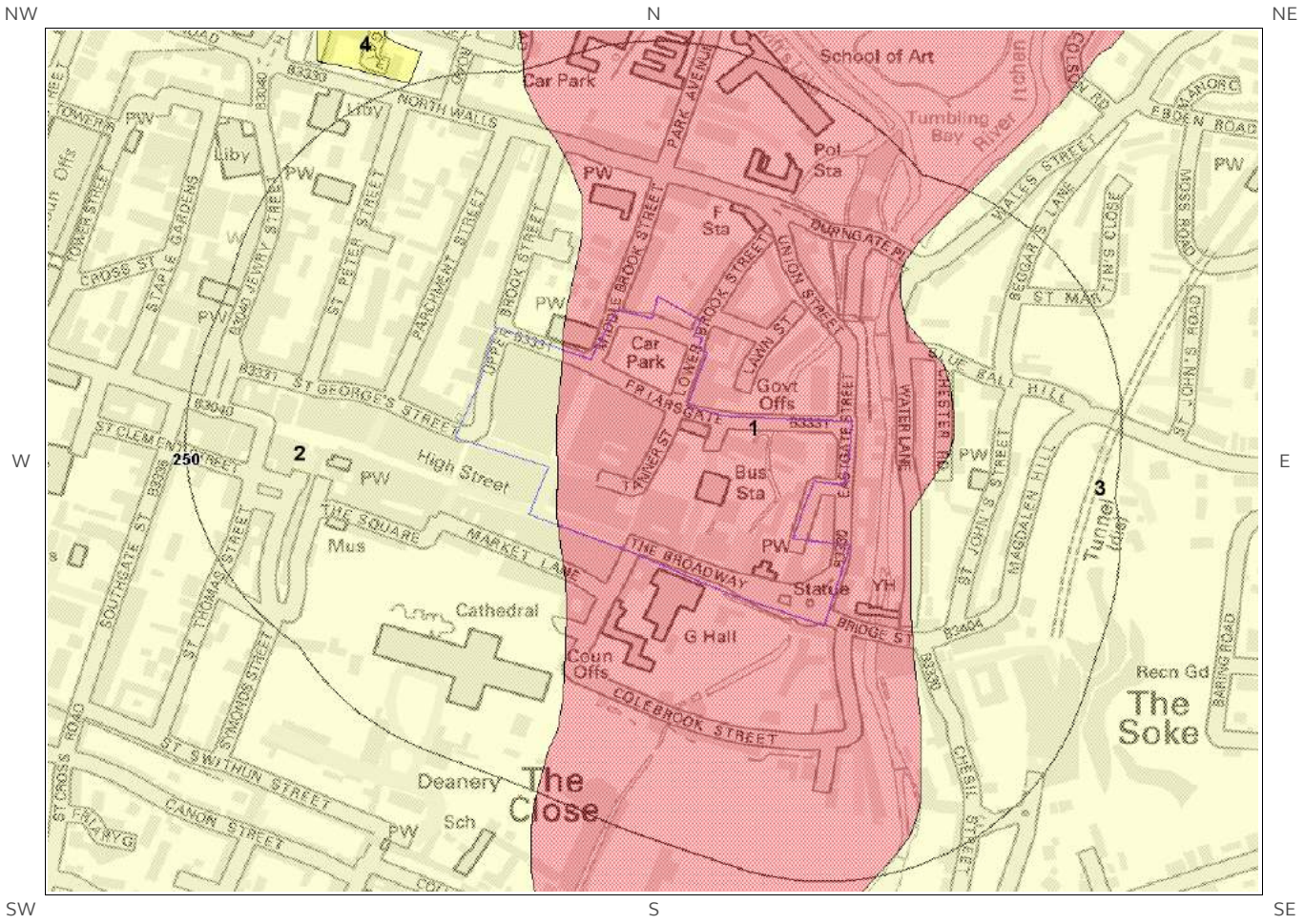
Very Low

Low

Moderate

High

4.4 Compressible Deposits Map



Compressible Deposits Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

Very Low

Low

Moderate

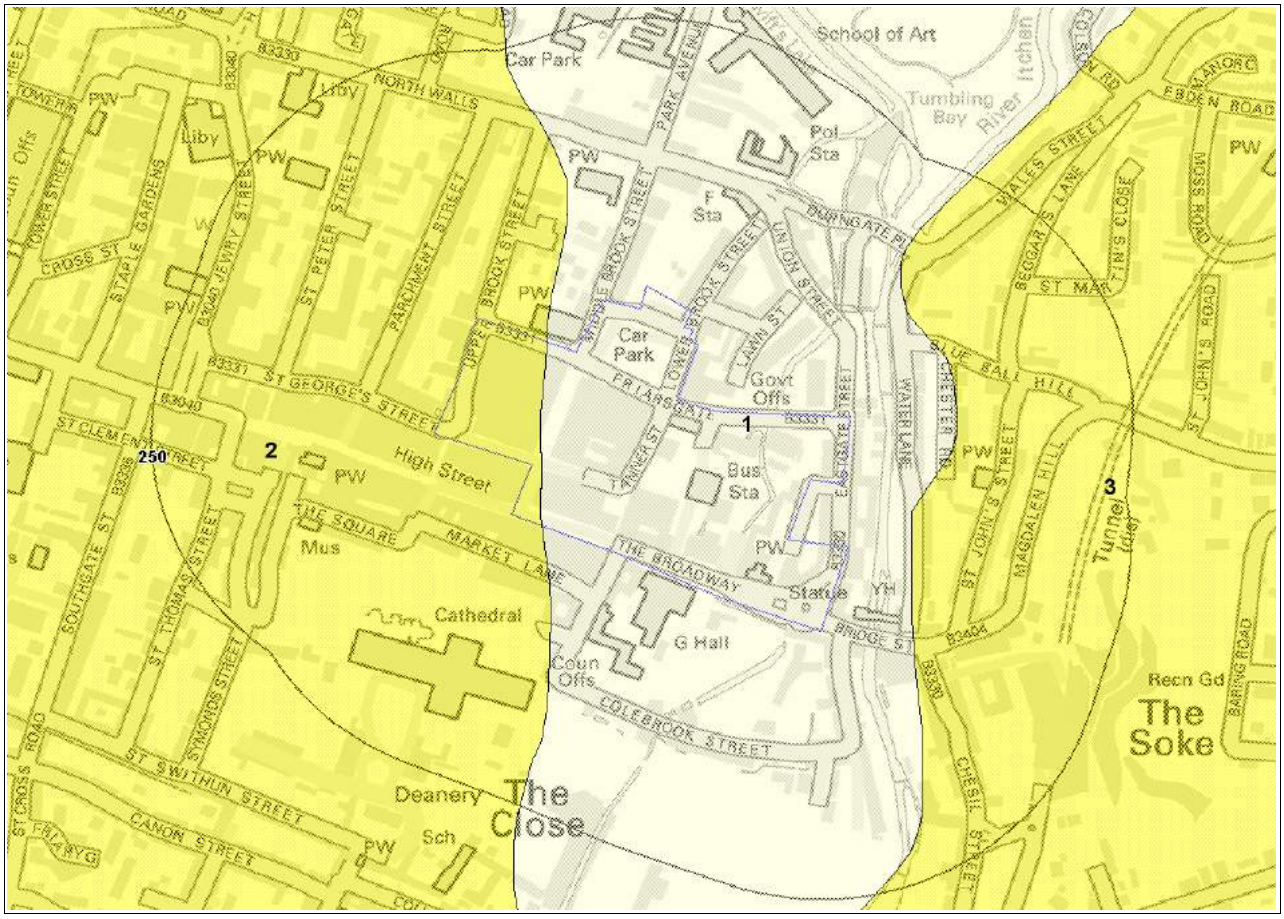
High

4.5 Collapsible Deposits Map

NW N NE

W E

SW S SE



Collapsible Deposits Legend

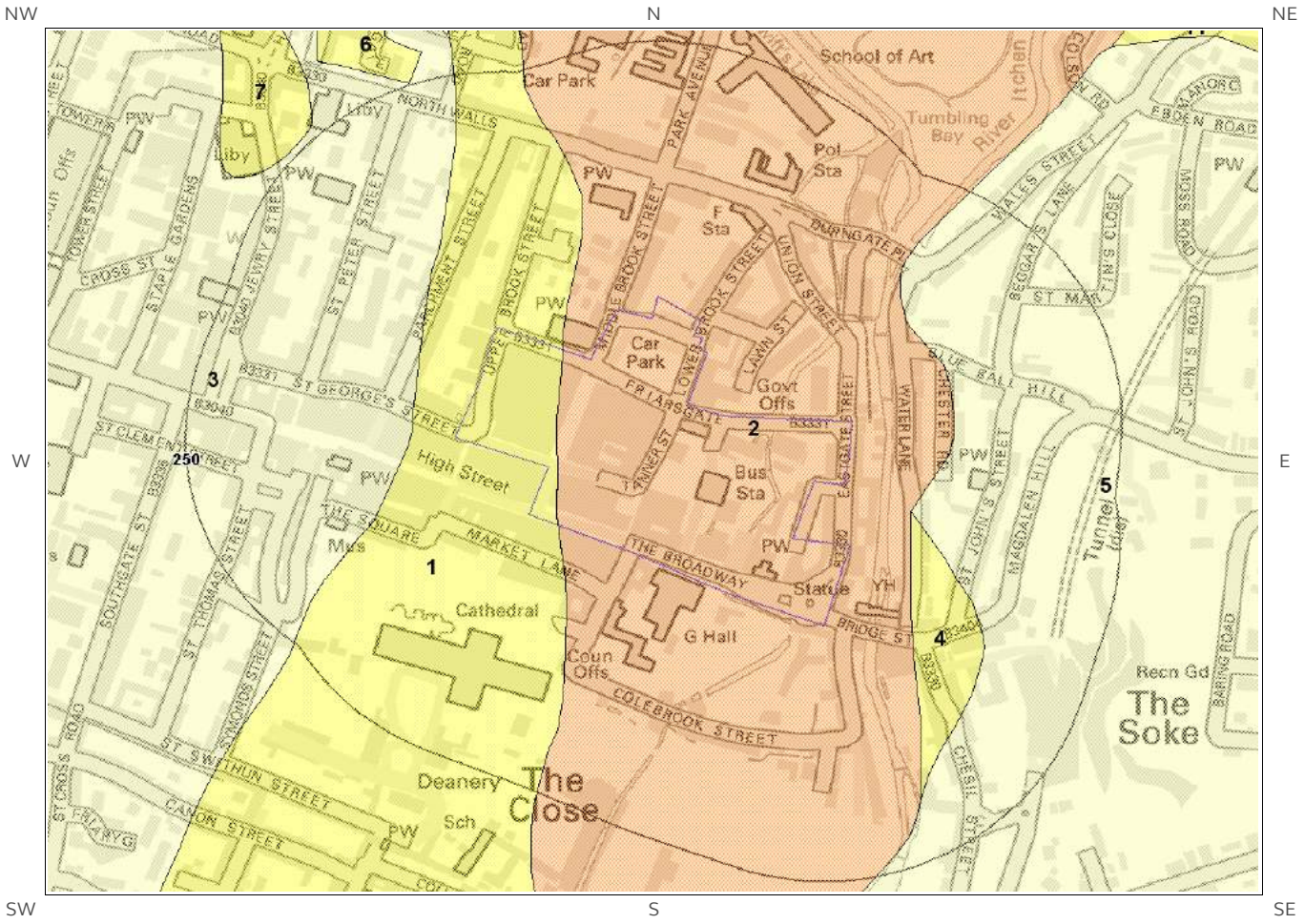
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.6 Running Sand Map



Running Sand Legend

Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site*[*] boundary? Moderate

4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	40.0	W	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

* This includes an automatically generated 50m buffer zone around the site

4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
2	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

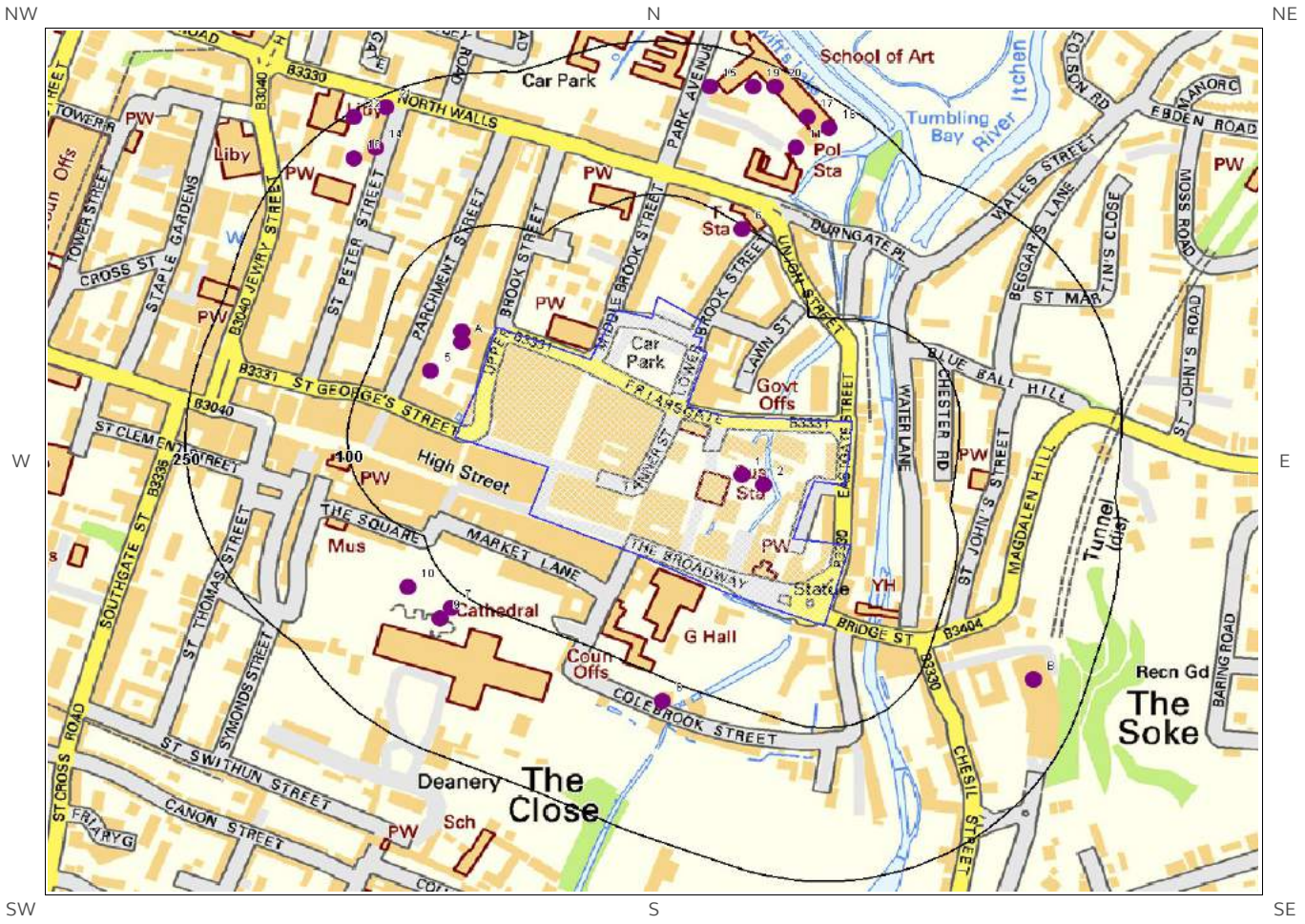
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
3	40.0	W	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend

Site Outline

Borehole Locations

125
250
Search Buffers (m)

5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary: 22

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	448480 129450	SU42NE64	6.0	WINCHESTER BH2
2	0.0	On Site	448500 129440	SU42NE63	9.5	WINCHESTER BH1
3A	26.0	W	448220 129580	SU42NE14	18.0	CEL/73/008 2 WINCHESTER
4A	29.0	W	448220 129590	SU42NE13	14.5	CEL/73/008 1 WINCHESTER
5	46.0	W	448191 129552	SU42NE210	12.2	71A PARCHMENT STREET WINCHESTER 1
6	96.0	NE	448480 129690	SU42NE148	22.86	WINCHESTER BATHS
7	117.0	SW	448210 129320	SU42NE20	5.65	WINCHESTER CATHEDRAL BH2
8	122.0	SW	448406 129229	SU42NE169	6.0	ABBEY MILL HOUSE WINCHESTER 1
9	132.0	SW	448200 129310	SU42NE21	6.0	WINCHESTER CATHEDRAL BH3
10	134.0	SW	448170 129340	SU42NE19	10.05	WINCHESTER CATHEDRAL BH1
11	190.0	NE	448530 129770	SU42NE130	15.24	WINCHESTER 8
12B	201.0	E	448750 129250	SU42NE131	7.62	SNOW WHITE ELECTRIC LAUNDRY WINCHESTER
13B	201.0	E	448750 129250	SU42NE132	6.32	SNOW WHITE ELECTRIC LAUNDRY WINCHESTER
14	208.0	NW	448140 129770	SU42NE17	15.15	NORTH WALLS WINCHESTER BH3
15	211.0	N	448450 129830	SU42NE123	15.24	WINCHESTER 1
16	211.0	NW	448120 129760	SU42NE18	20.0	NORTH WALLS WINCHESTER BH4
17	221.0	NE	448540 129800	SU42NE128	15.24	WINCHESTER 6
18	223.0	NE	448560 129790	SU42NE129	18.29	WINCHESTER 7
19	223.0	NE	448490 129830	SU42NE124	15.09	WINCHESTER 2
20	232.0	NE	448510 129830	SU42NE127	18.29	WINCHESTER 5
21	238.0	NW	448150 129810	SU42NE15	20.15	NORTH WALLS WINCHESTER BH1
22	244.0	NW	448120 129800	SU42NE16	15.15	NORTH WALLS WINCHESTER BH2

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/411973
#2: scans.bgs.ac.uk/sobi_scans/boreholes/411972
#3A: scans.bgs.ac.uk/sobi_scans/boreholes/411923
#4A: scans.bgs.ac.uk/sobi_scans/boreholes/411922
#5: scans.bgs.ac.uk/sobi_scans/boreholes/17525396
#6: scans.bgs.ac.uk/sobi_scans/boreholes/412057
#7: scans.bgs.ac.uk/sobi_scans/boreholes/411929
#8: scans.bgs.ac.uk/sobi_scans/boreholes/15019916
#9: scans.bgs.ac.uk/sobi_scans/boreholes/411930
#10: scans.bgs.ac.uk/sobi_scans/boreholes/411928
#11: scans.bgs.ac.uk/sobi_scans/boreholes/412039
#12B: scans.bgs.ac.uk/sobi_scans/boreholes/412040
#13B: scans.bgs.ac.uk/sobi_scans/boreholes/412041
#14: scans.bgs.ac.uk/sobi_scans/boreholes/411926
#15: scans.bgs.ac.uk/sobi_scans/boreholes/412032
#16: scans.bgs.ac.uk/sobi_scans/boreholes/411927
#17: scans.bgs.ac.uk/sobi_scans/boreholes/412037
#18: scans.bgs.ac.uk/sobi_scans/boreholes/412038
#19: scans.bgs.ac.uk/sobi_scans/boreholes/412033
#20: scans.bgs.ac.uk/sobi_scans/boreholes/412036
#21: scans.bgs.ac.uk/sobi_scans/boreholes/411924
#22: scans.bgs.ac.uk/sobi_scans/boreholes/411925

6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 30

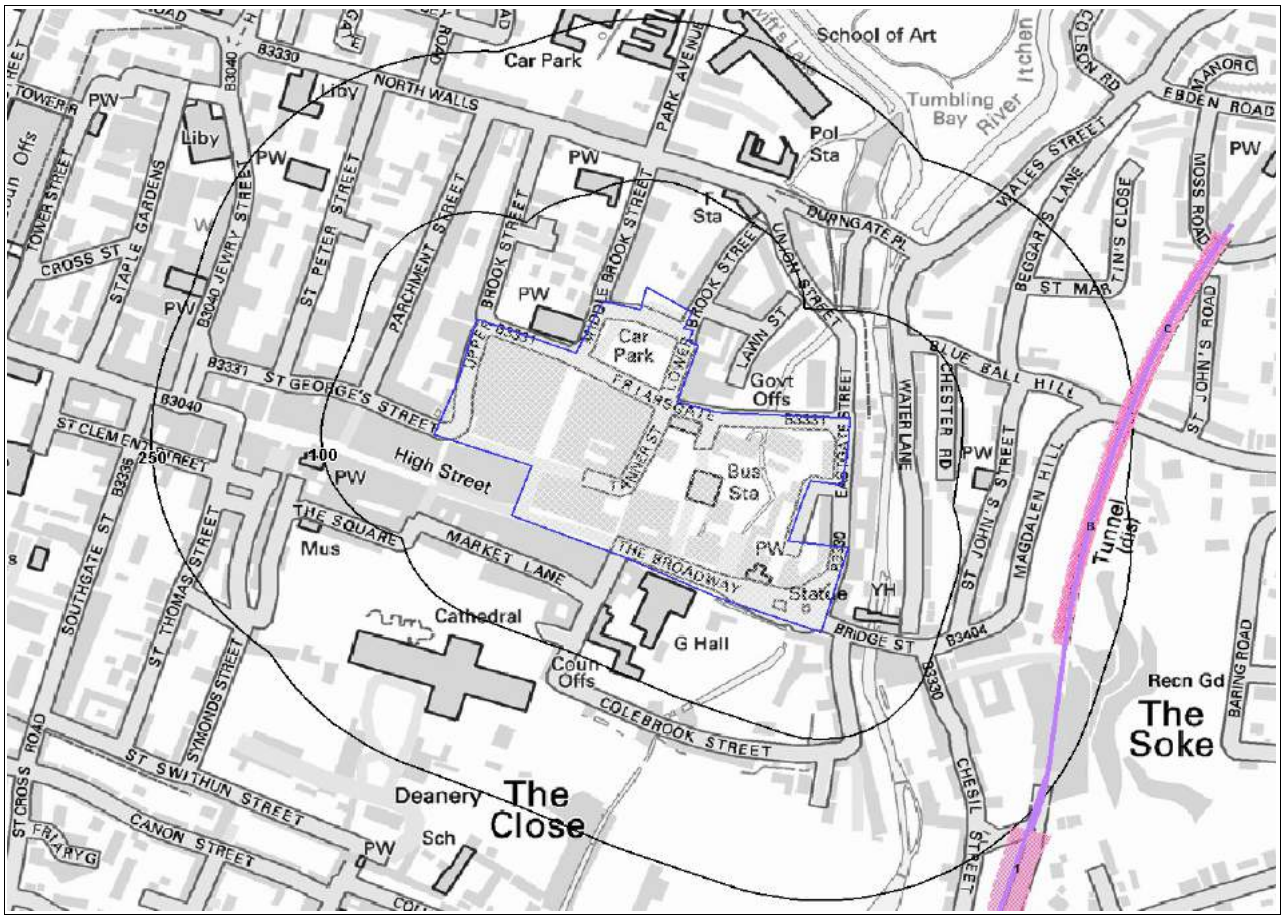
For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
35.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
40.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
42.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
56.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
57.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
65.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
94.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
104.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
125.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
151.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
172.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
191.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
192.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
193.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	<15 mg/kg	<100 mg/kg
193.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
208.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
214.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
243.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
250.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

7 Railways and Tunnels Map

NW N NE



W E

SW S SE

Railways and Tunnels Legend

- Site Outline
- Search Buffers (m): 250, 500
- Underground or Partially Underground Railway / Subway System
- Railway Tunnel (OS Mapping)
- Abandoned or Dismantled Railway (OpenStreetMap)
- Railway Track (OS Mapping)
- Railway Track (OpenStreetMap)
- High Speed 2
- High Speed 2 Revised Proposed Route
- Crossrail 1
- Railway and/or Tunnel Feature from Historical Mapping

7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
20A	194	E	448818 129487	Tunnel	1898
21A	194	E	448818 129487	Tunnel	1898
2A	197	E	448822 129483	Tunnel	1939
3A	197	E	448822 129483	Tunnel	1932
4A	197	E	448822 129483	Tunnel	1909
22A	197	E	448823 129488	Tunnel	1931

ID	Distance (m)	Direction	NGR	Details	Date
23A	197	E	448823 129488	Tunnel	1938
24A	197	E	448823 129488	Tunnel	1895
25A	197	E	448823 129488	Tunnel	1908
26A	197	E	448814 129481	Tunnel	1989
27A	197	E	448814 129481	Tunnel	1957
28A	197	E	448814 129481	Tunnel	1981
29A	197	E	448814 129481	Tunnel	1968
5A	199	E	448818 129480	Tunnel	1952
6A	199	E	448818 129480	Tunnel	1967
7A	199	E	448818 129480	Tunnel	1960
8B	199	E	448792 129396	Disused Tunnel	1993
9B	199	E	448792 129396	Tunnel	1967
10B	199	E	448792 129396	Tunnel	1952
11B	200	E	448792 129397	Disused Tunnel	1985
12B	200	E	448792 129397	Disused Tunnel	1988
13B	200	E	448792 129397	Disused Tunnel	1989
14C	238	E	448866 129584	Tunnel	1987
15C	240	E	448865 129587	Tunnel	1963
16C	240	E	448865 129587	Disused Tunnel	1991
17C	240	E	448865 129587	Tunnel	1974
18C	240	E	448865 129587	Tunnel	1967
19C	240	E	448865 129587	Tunnel	1952
1	247	SE	448726 129078	Railway Sidings	1908

Any records that have been identified are represented on the Railways and Tunnels Map.

7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Status
203	E	Abandoned
208	E	Abandoned
239	SE	Abandoned
250	SE	Abandoned

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

Crossrail route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Contact Details

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Kingsley Dunham Centre
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Fax: 0115 936 3276.
Email:**enquiries@bgs.ac.uk**
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries

British Gypsum

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LE12 6HX

The Coal Authority

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Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Public Health England

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Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
https://www.gov.uk/government/organisations/public-health-england
Email: **enquiries@phe.gov.uk**
Main switchboard: 020 7654 8000

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Website: **www.jpb.co.uk**

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Website:**http://www.peterbrett.com/home**

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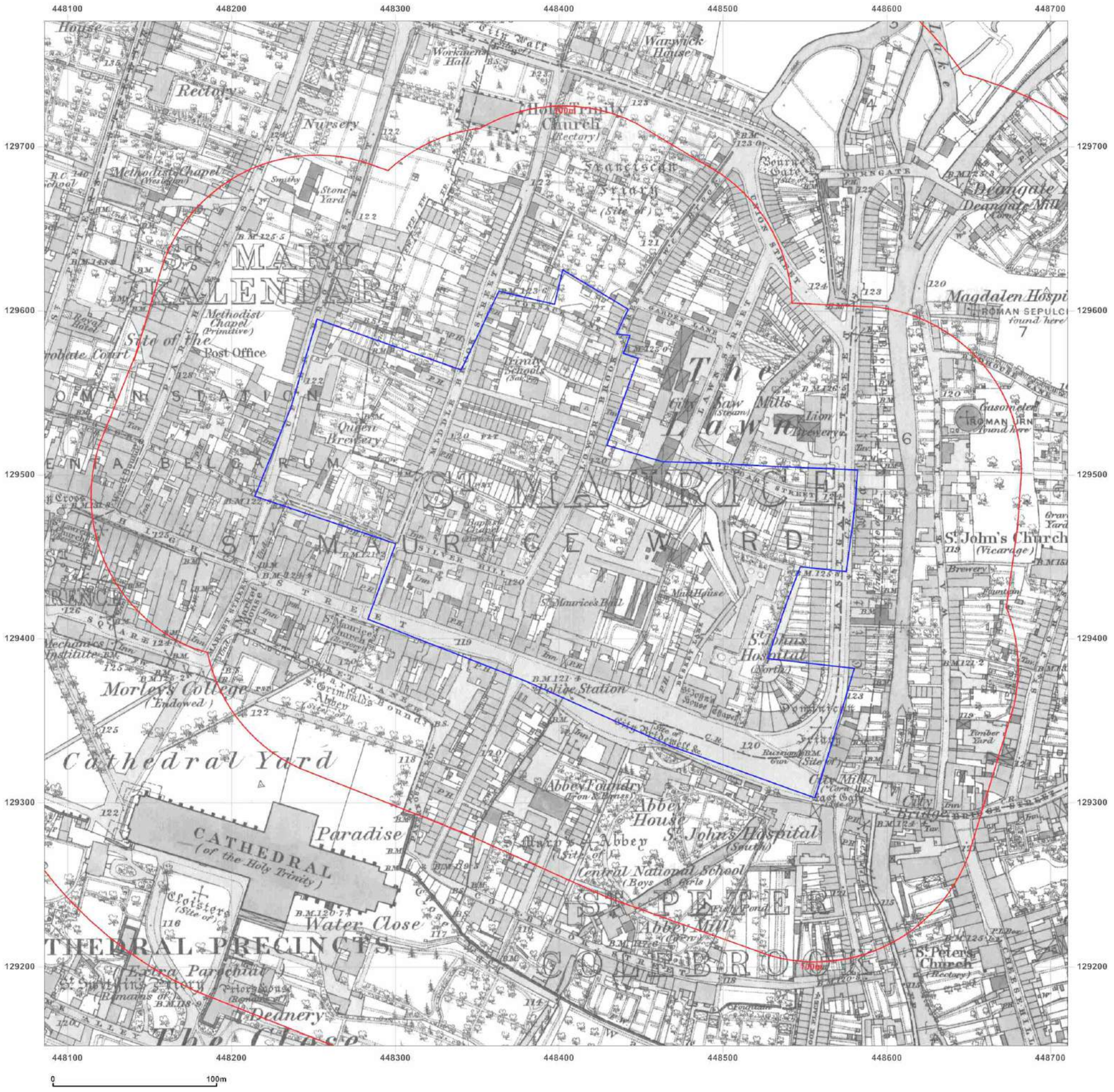

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
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9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1871**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series Town Plan

Map date: **1871**

Scale: 1:500

Printed at: 1:1,000

N
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Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1909**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1870
Revised 1908
Edition 1909
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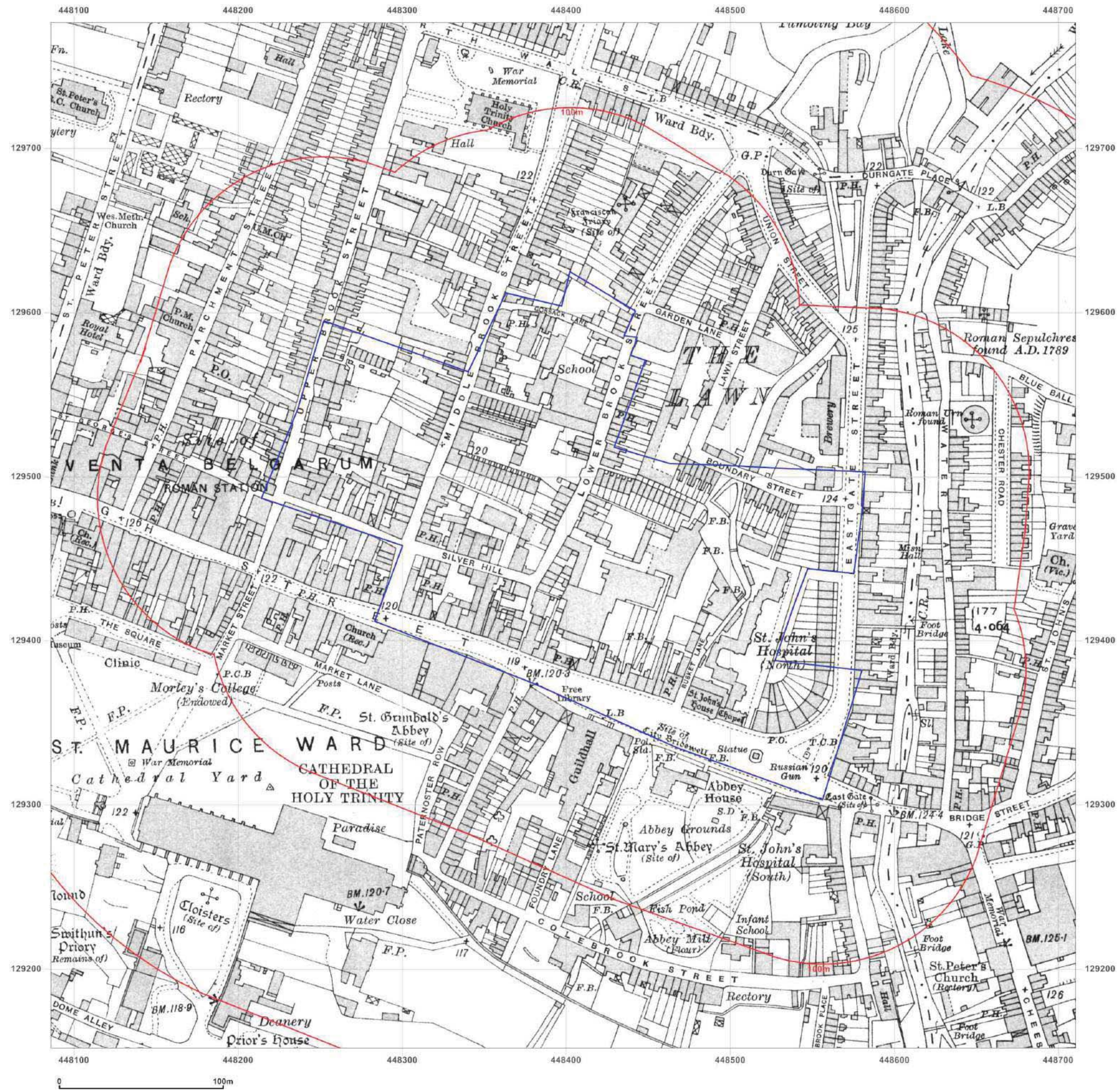

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500

N W E S

Surveyed 1870
Revised 1931
Edition 1932
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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series
Map date: 1940
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1870
Revised 1940
Edition N/A
Copyright N/A
Levelled 1940

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1952**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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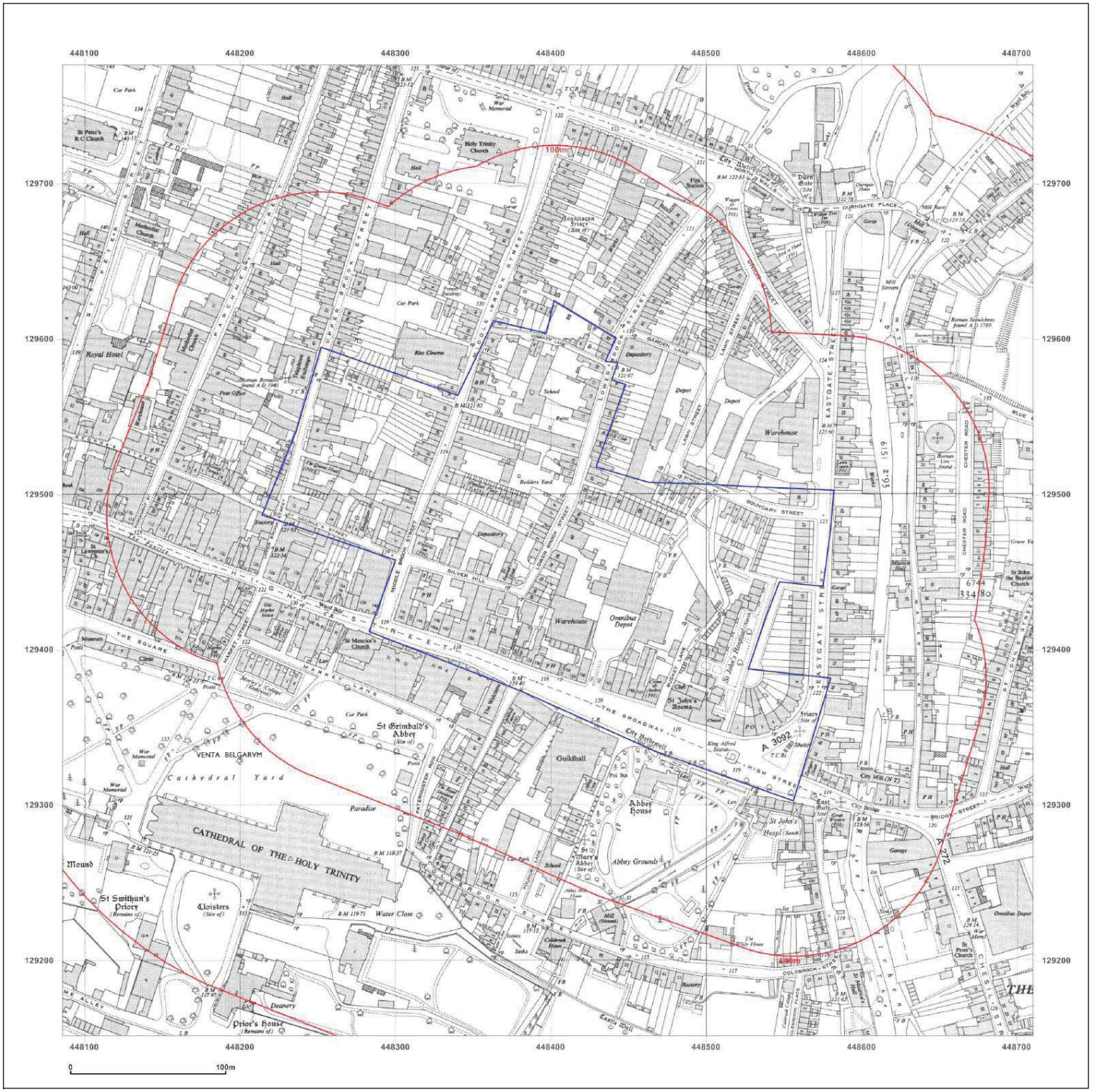

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1960**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1960
Revised 1960
Edition 1962
Copyright 1962
Levelled 1959

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9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1963-1967**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1952
Revised 1964
Edition N/A
Copyright 1965
Levelled 1958

Surveyed 1952
Revised 1962
Edition N/A
Copyright 1963
Levelled 1958

Surveyed 1952
Revised 1964
Edition N/A
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Levelled 1958

Surveyed 1952
Revised 1966
Edition N/A
Copyright 1967
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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1967**
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1967
Revised 1967
Edition N/A
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Levelled 1959

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1973-1975**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1952
Revised 1973
Edition N/A
Copyright 1973
Levelled 1958

Surveyed 1952
Revised 1974
Edition N/A
Copyright 1974
Levelled 1958

Surveyed 1952
Revised 1975
Edition N/A
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Levelled 1958

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1985-1987**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1985
Levelled 1958

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1987
Levelled 1958

Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
Levelled 1958

Surveyed 1958
Revised 1985
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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1993**
Scale: 1:1,250
Printed at: 1:2,000

N
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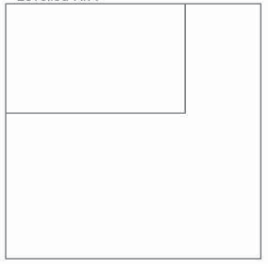
Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A Revised N/A Edition N/A Copyright 1988 Levelled 1958	Surveyed 1990 Revised 1990 Edition N/A Copyright 1991 Levelled N/A
Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A	Surveyed 1958 Revised 1988 Edition N/A Copyright 1988 Levelled 1958

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

Surveyed 1994
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

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Production date: 22 December 2016

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1991-1994**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled 1958

Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
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STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series
Map date: **1871**
Scale: 1:2,500
Printed at: 1:2,500

N
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S

Surveyed 1871
Revised N/A
Edition N/A
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Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series Town Plan
Map date: **1871**
Scale: 1:500
Printed at: 1:1,000

N
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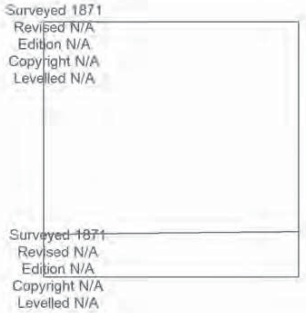

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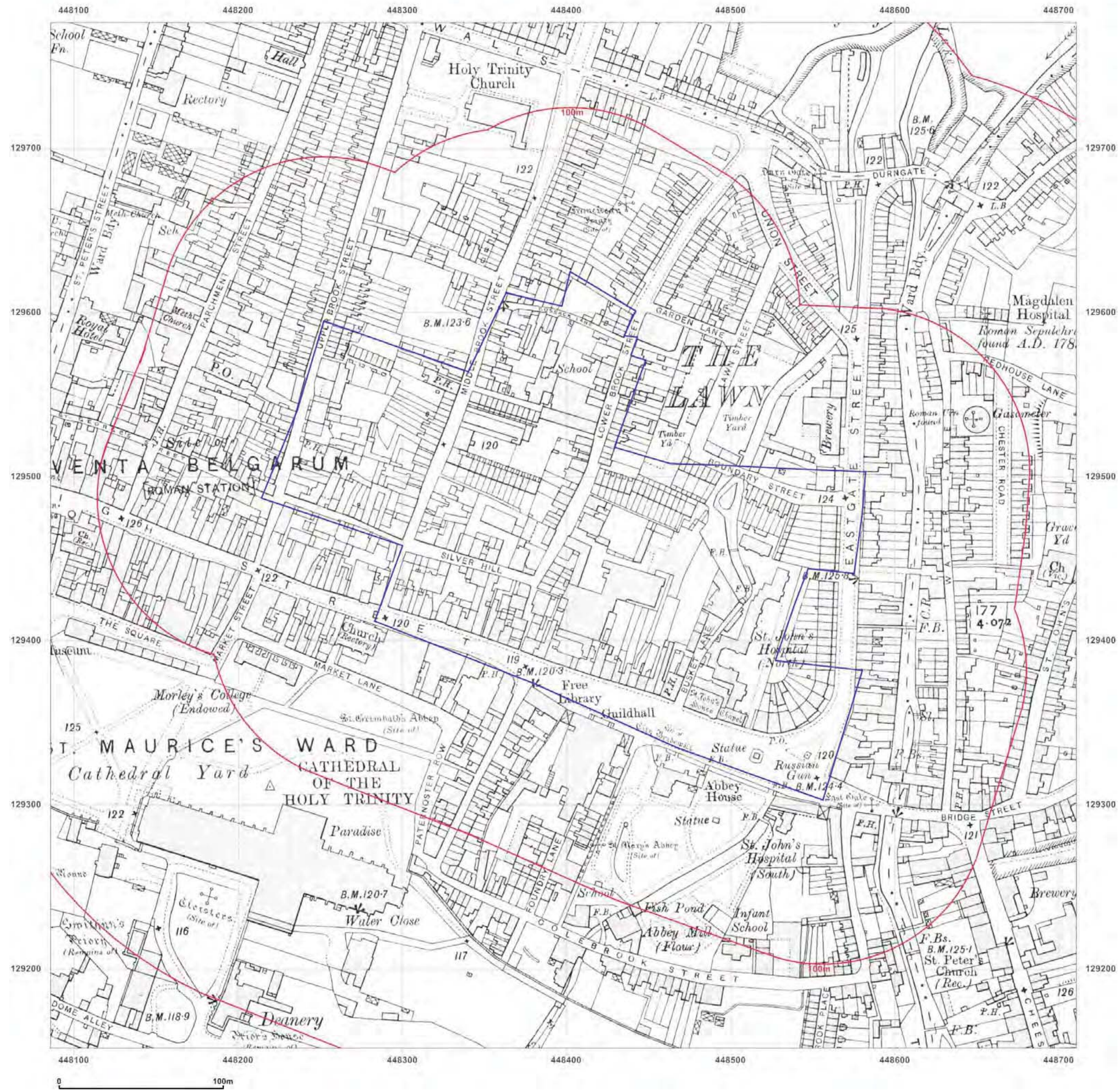

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: 1909

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1870
Revised 1908
Edition 1909
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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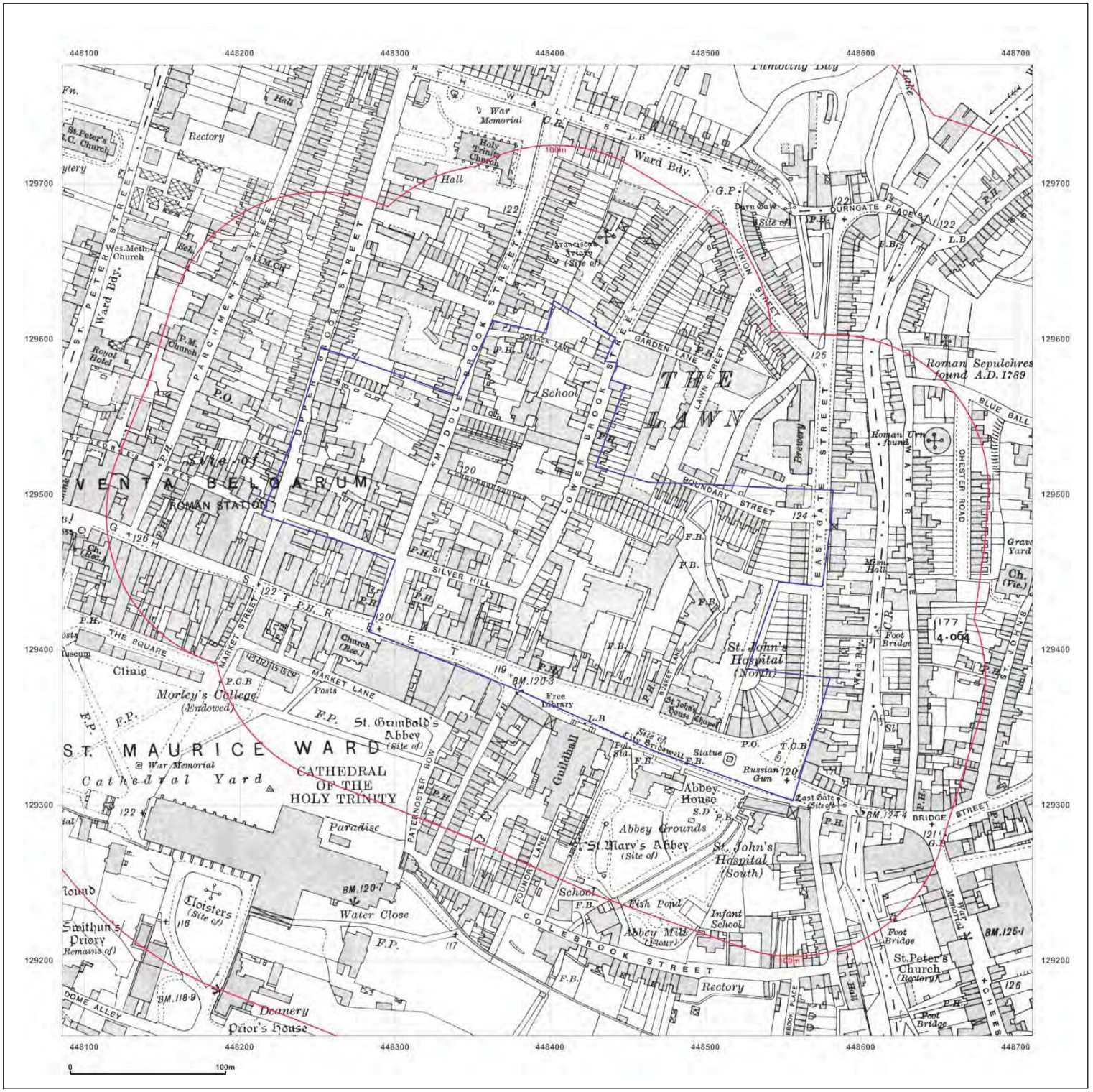

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Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series
Map date: 1932
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1870
Revised 1931
Edition 1932
Copyright N/A
Levelled 1908

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Production date: 22 December 2016

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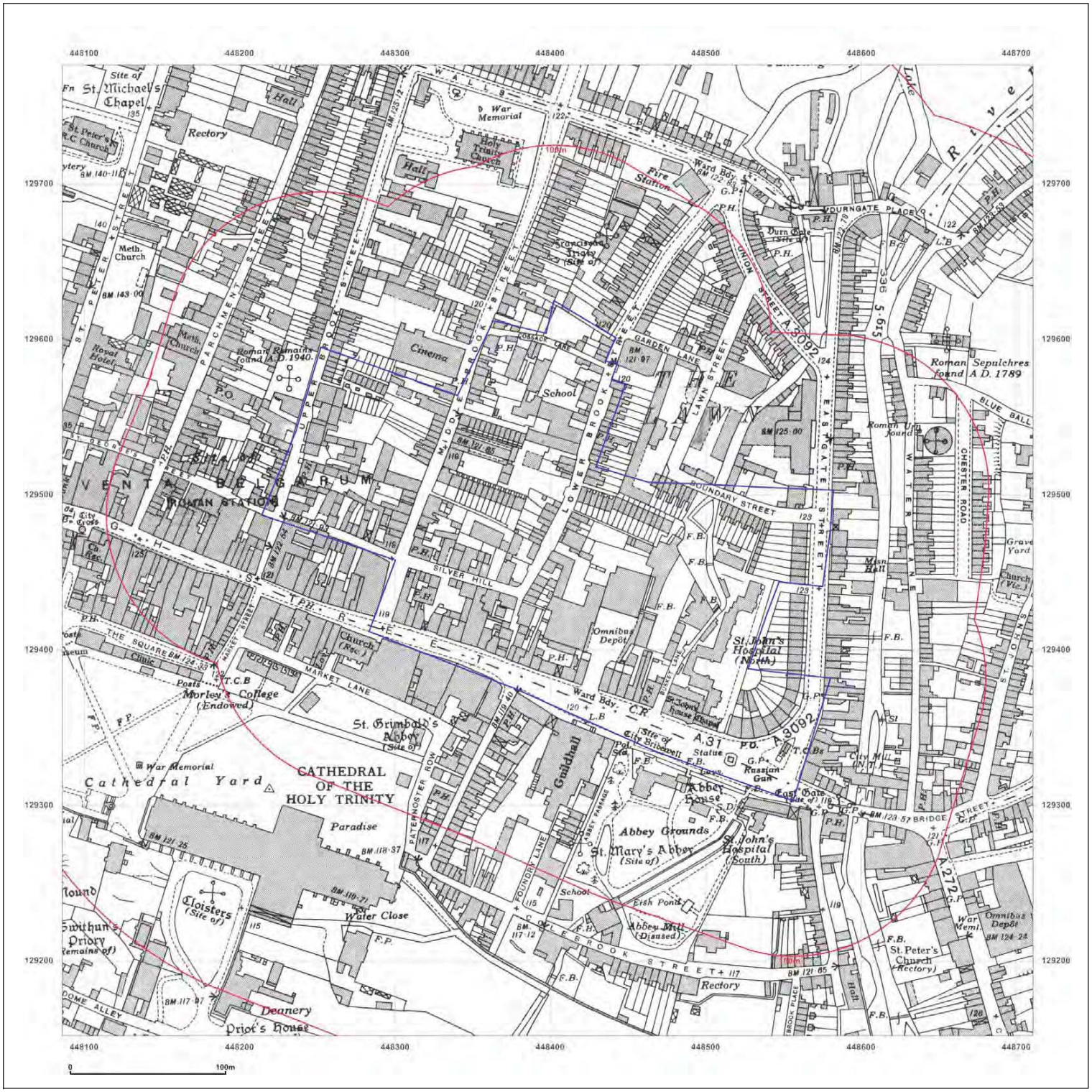

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: 1940

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1870
Revised 1940
Edition N/A
Copyright N/A
Levelled 1940

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Production date: 22 December 2016

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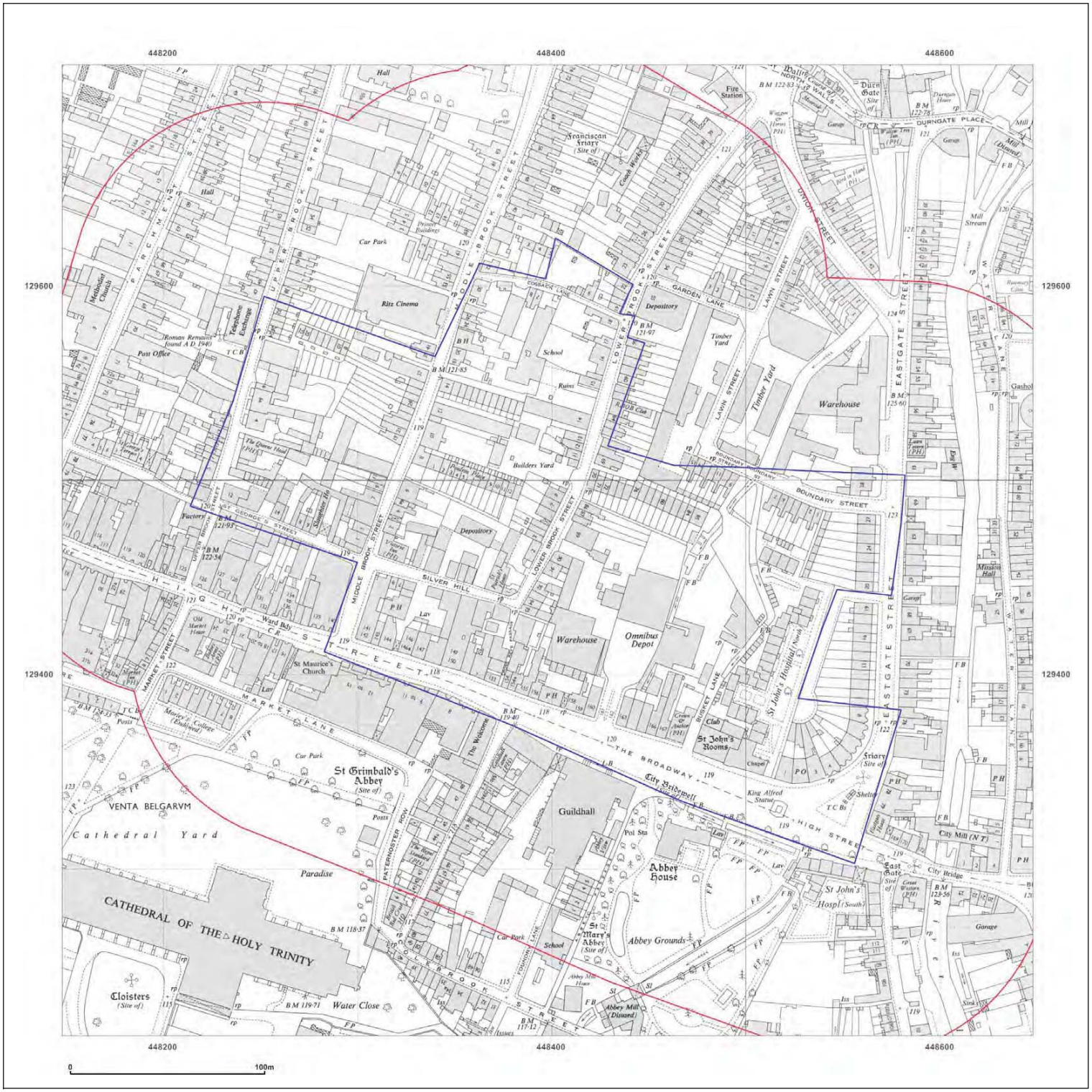

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1952**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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Production date: 22 December 2016

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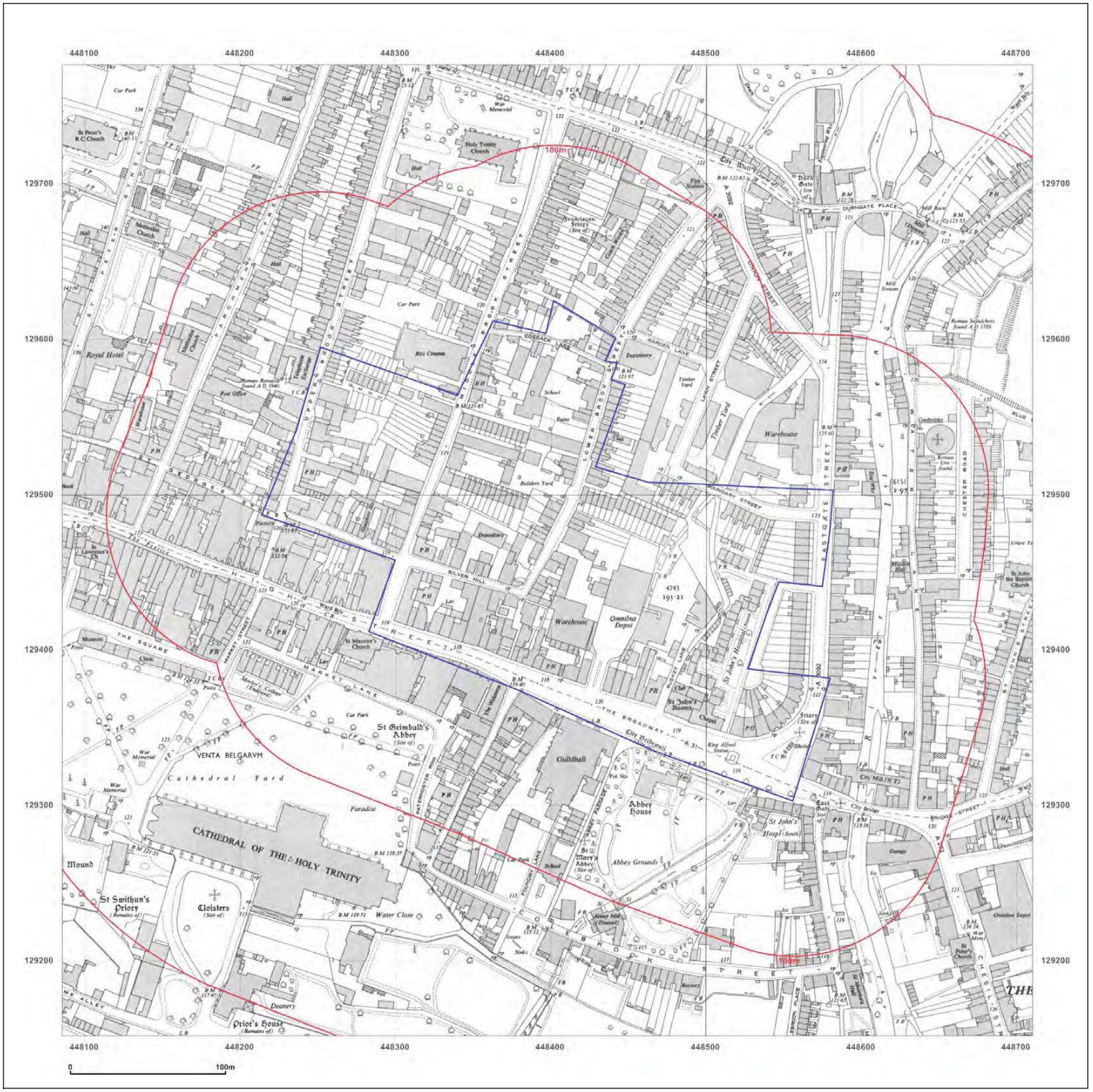

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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Production date: 22 December 2016

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Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: 1960

Scale: 1:2,500

Printed at: 1:2,500

N W E S

Surveyed 1960
Revised 1960
Edition 1962
Copyright 1962
Levelled 1959

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Production date: 22 December 2016

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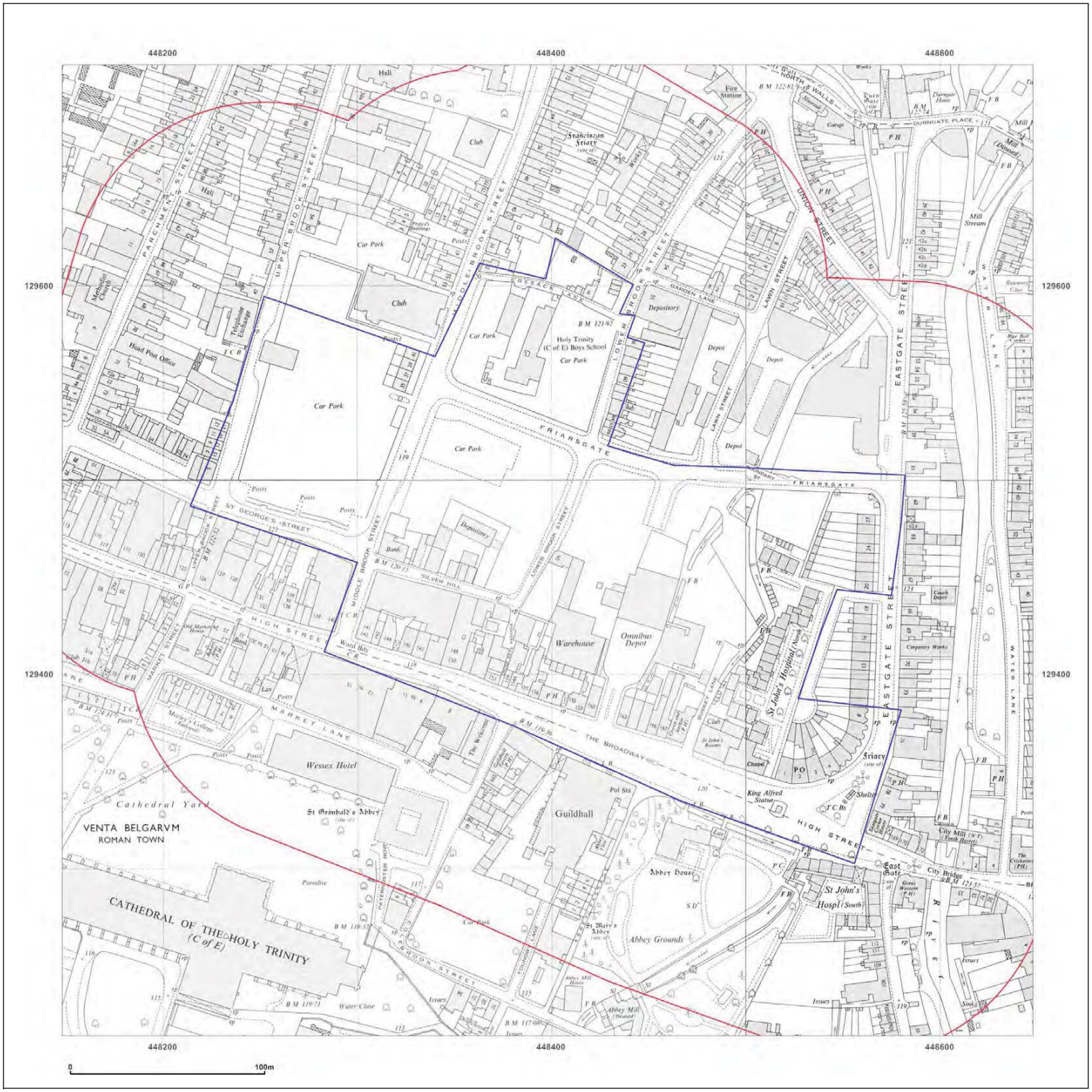

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK
STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1963-1967**
Scale: 1:1,250
Printed at: 1:2,000

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Production date: 22 December 2016

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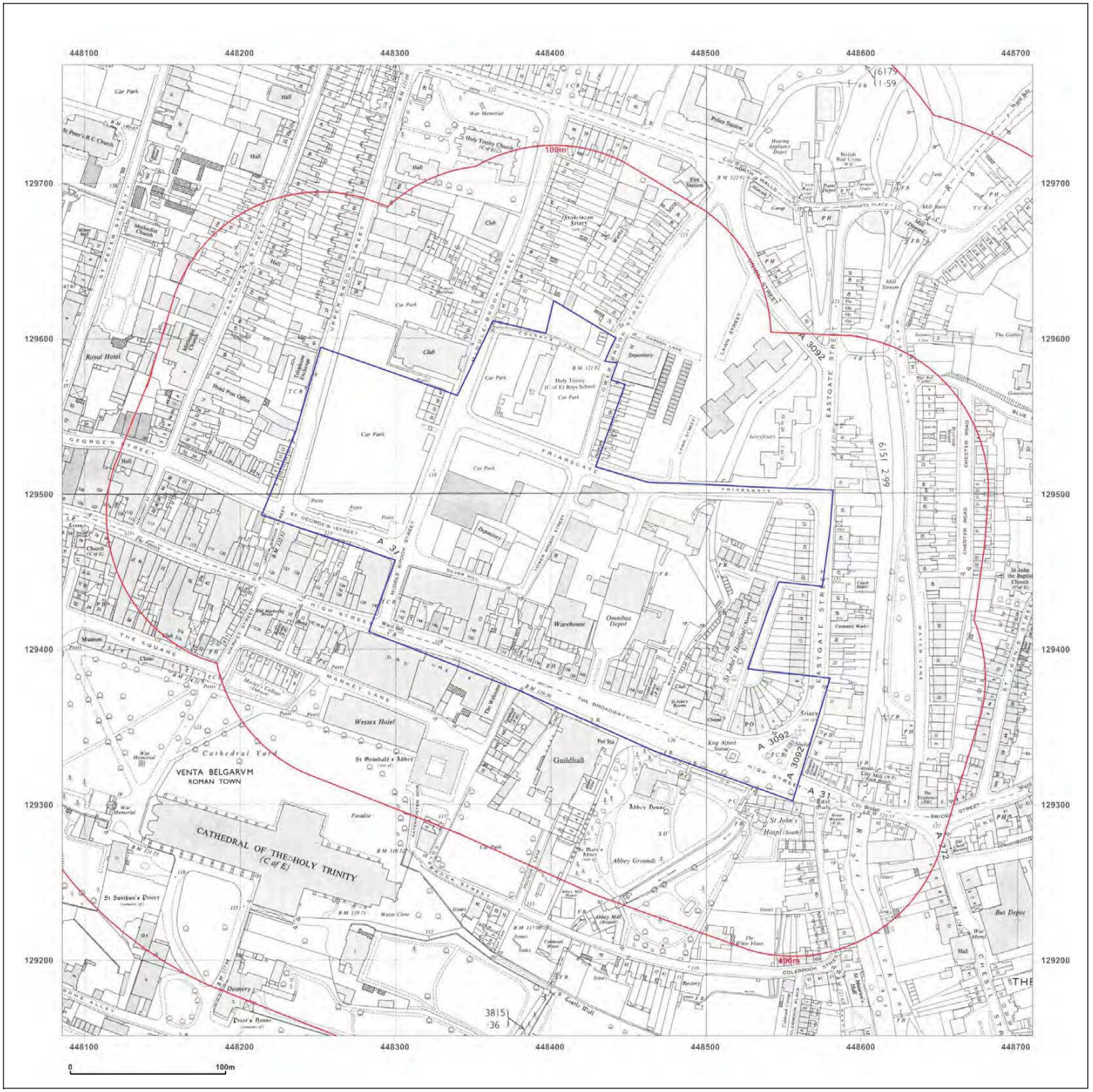

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1967**
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1967
Revised 1967
Edition N/A
Copyright 1969
Levelled 1959

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Production date: 22 December 2016

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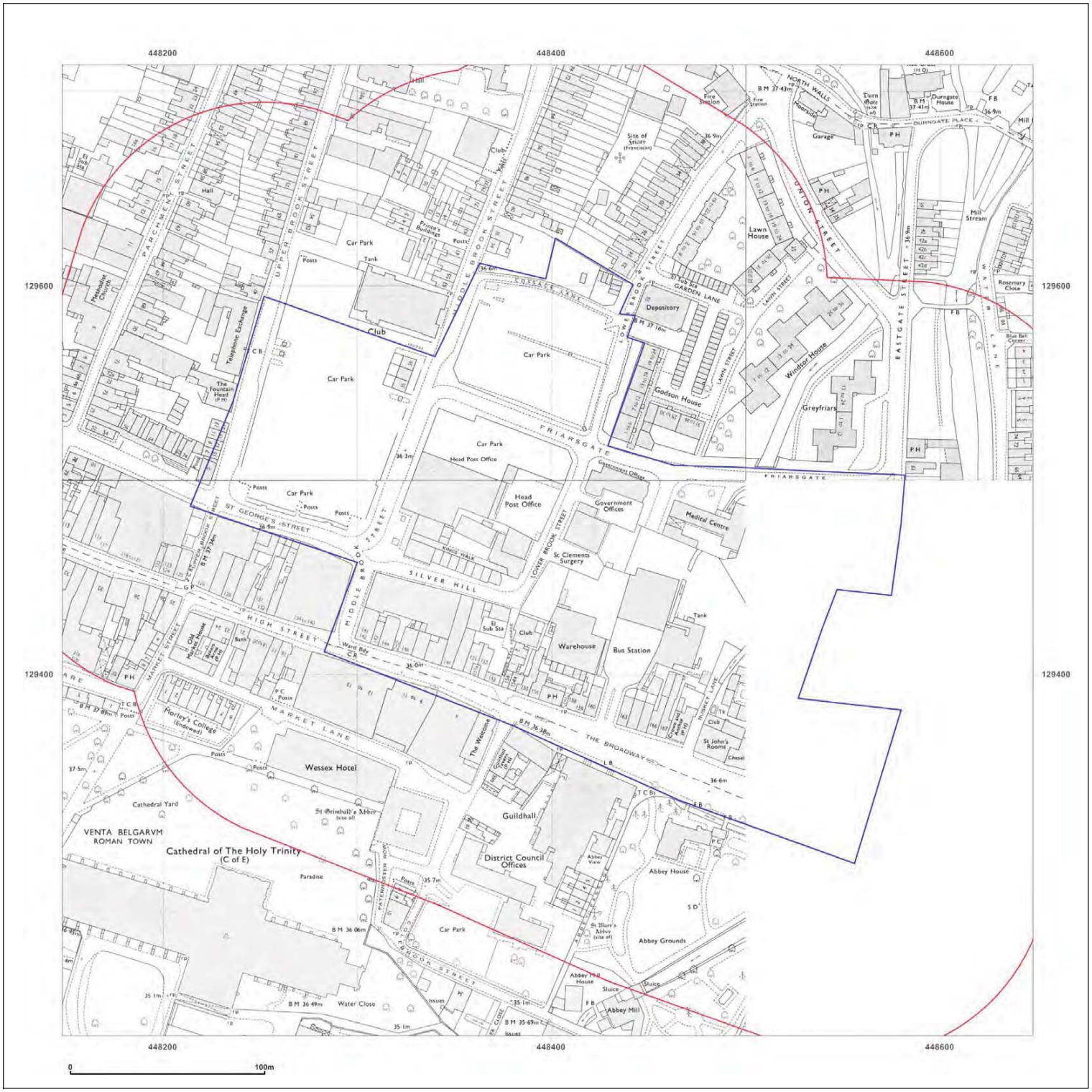

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid
Map date: **1973-1975**
Scale: 1:1,250
Printed at: 1:2,000

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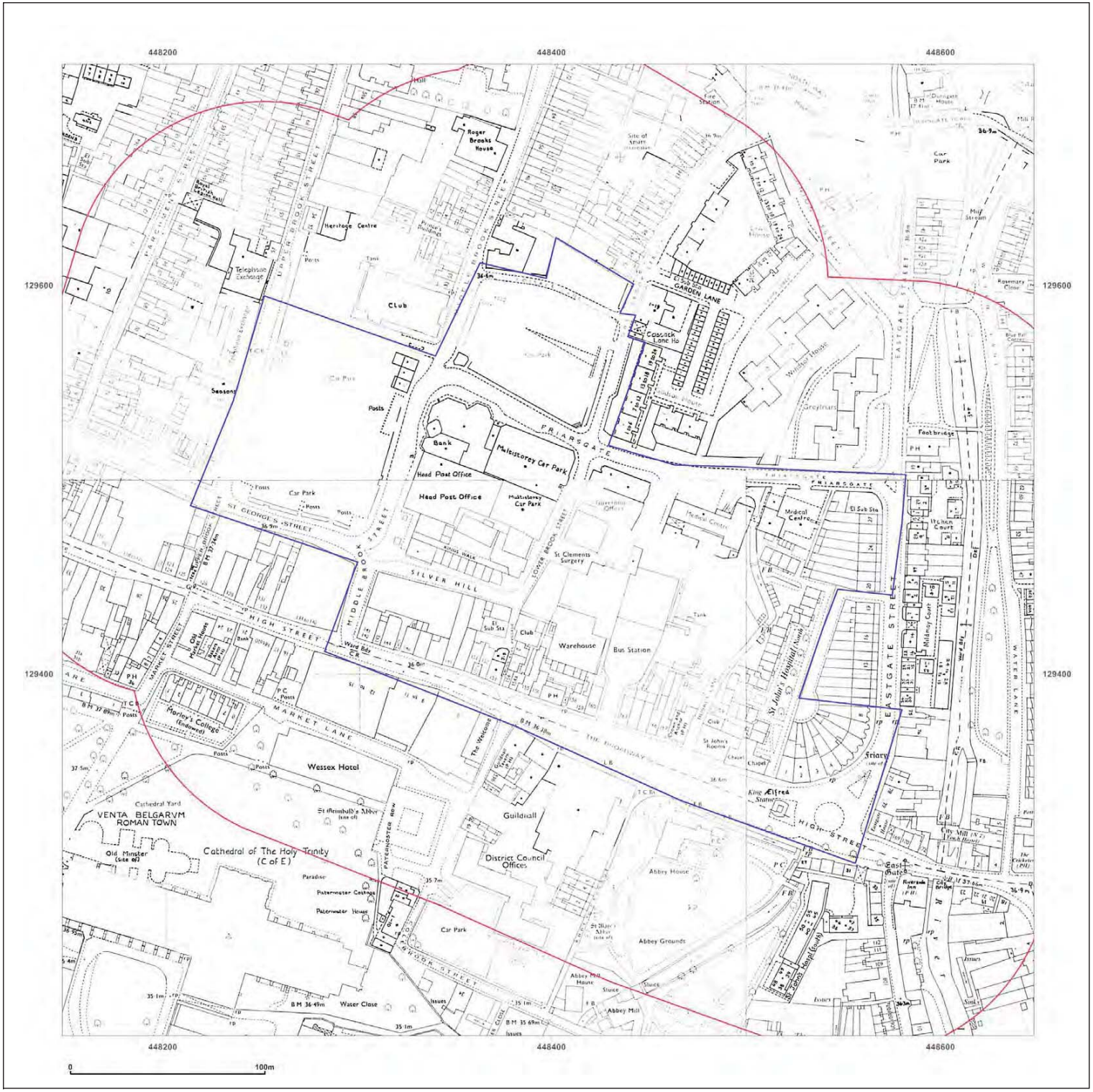
Production date: 22 December 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1985-1987**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1985
Levelled 1958

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1987
Levelled 1958

Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
Levelled 1958

Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
Levelled 1958

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Production date: 22 December 2016

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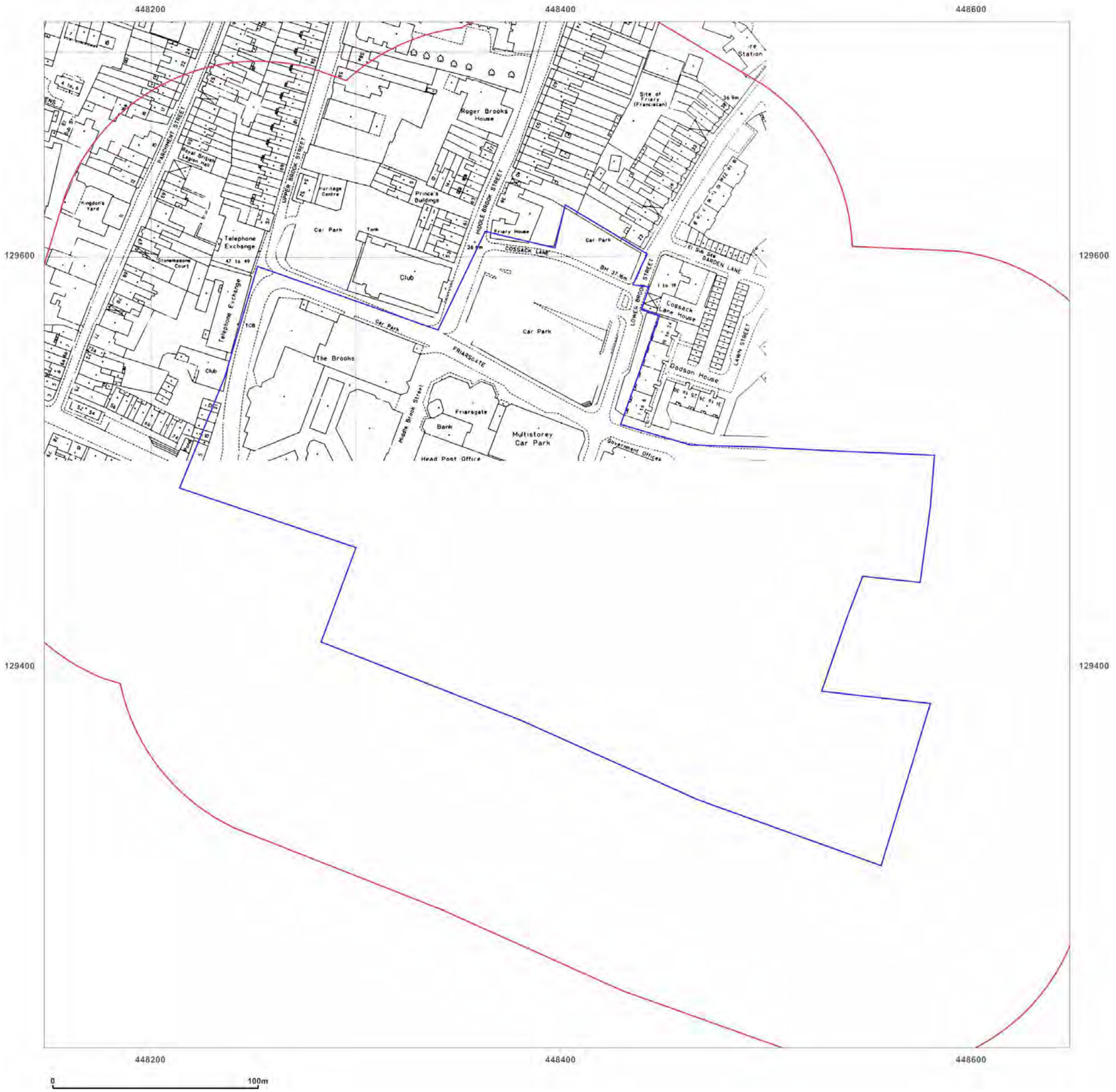

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

N
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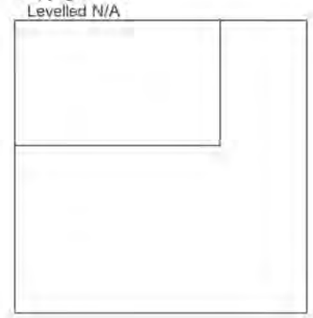
Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



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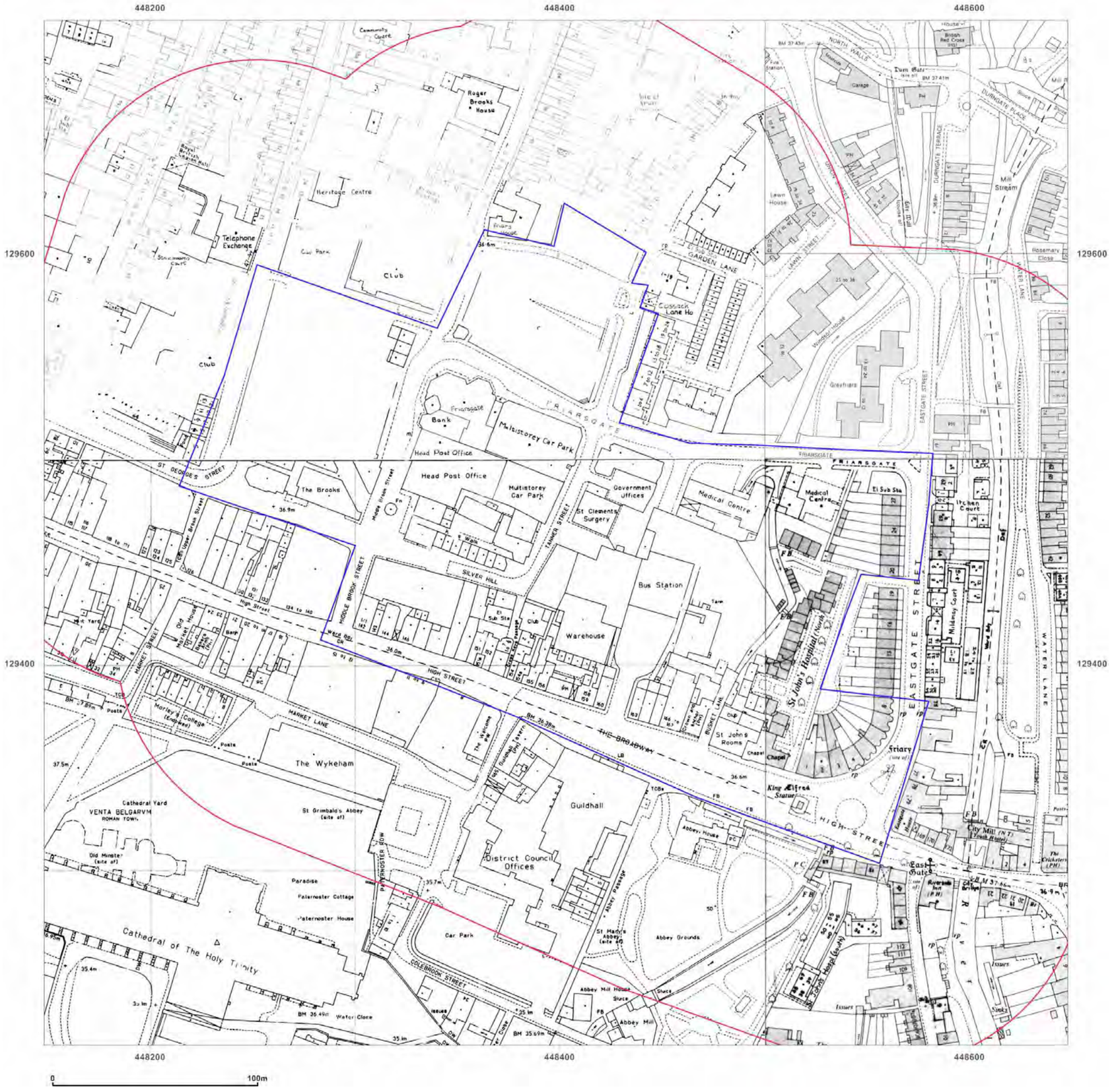

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A Revised N/A Edition N/A Copyright 1988 Levelled 1958	Surveyed 1990 Revised 1990 Edition N/A Copyright 1991 Levelled N/A
Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A	Surveyed 1958 Revised 1988 Edition N/A Copyright 1988 Levelled 1958

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Production date: 22 December 2016

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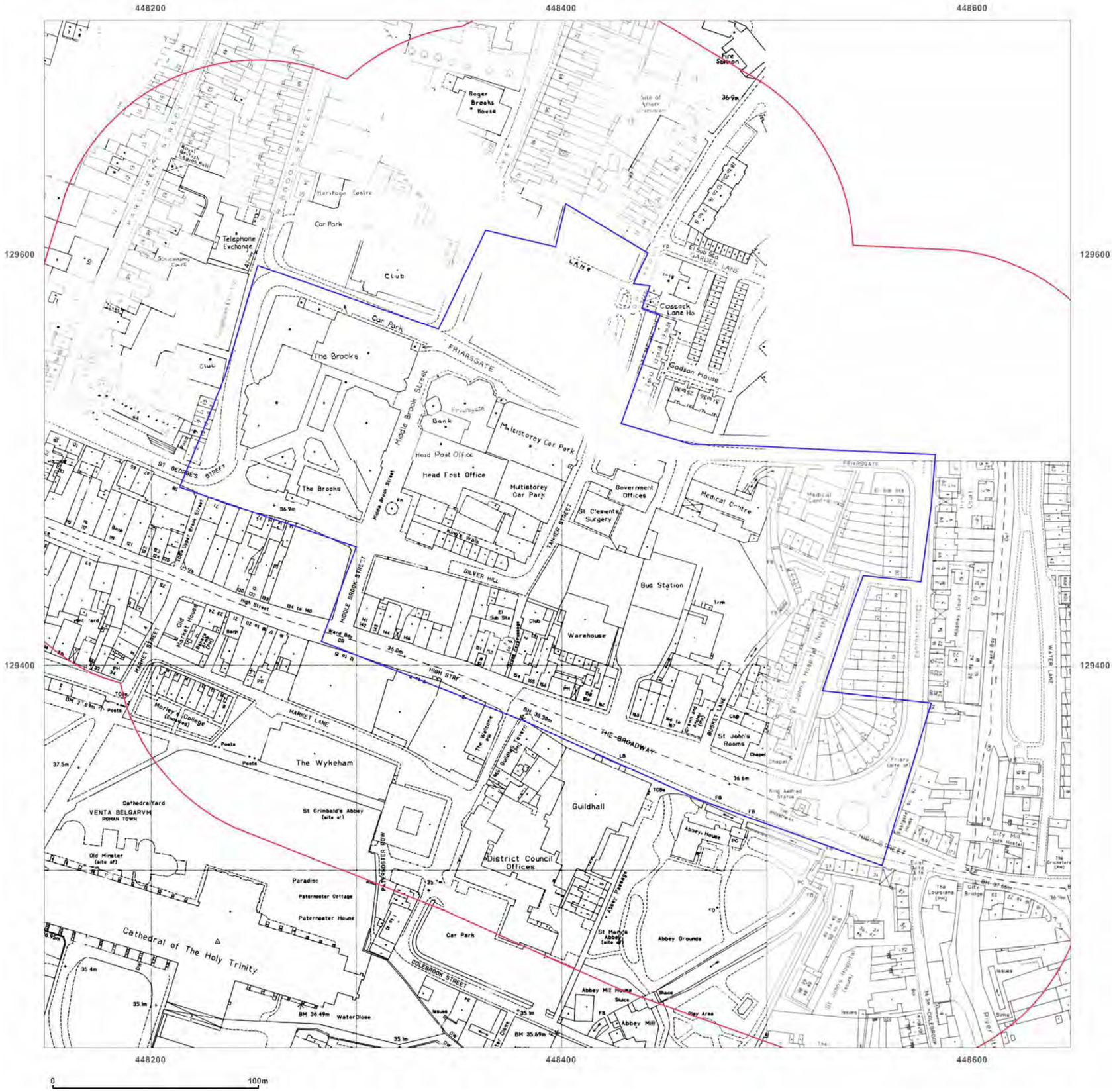

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

Surveyed 1994 Revised N/A Edition N/A Copyright 1994 Levelled N/A	Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled 1958

Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

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W: www.groundsure.com

Production date: 22 December 2016

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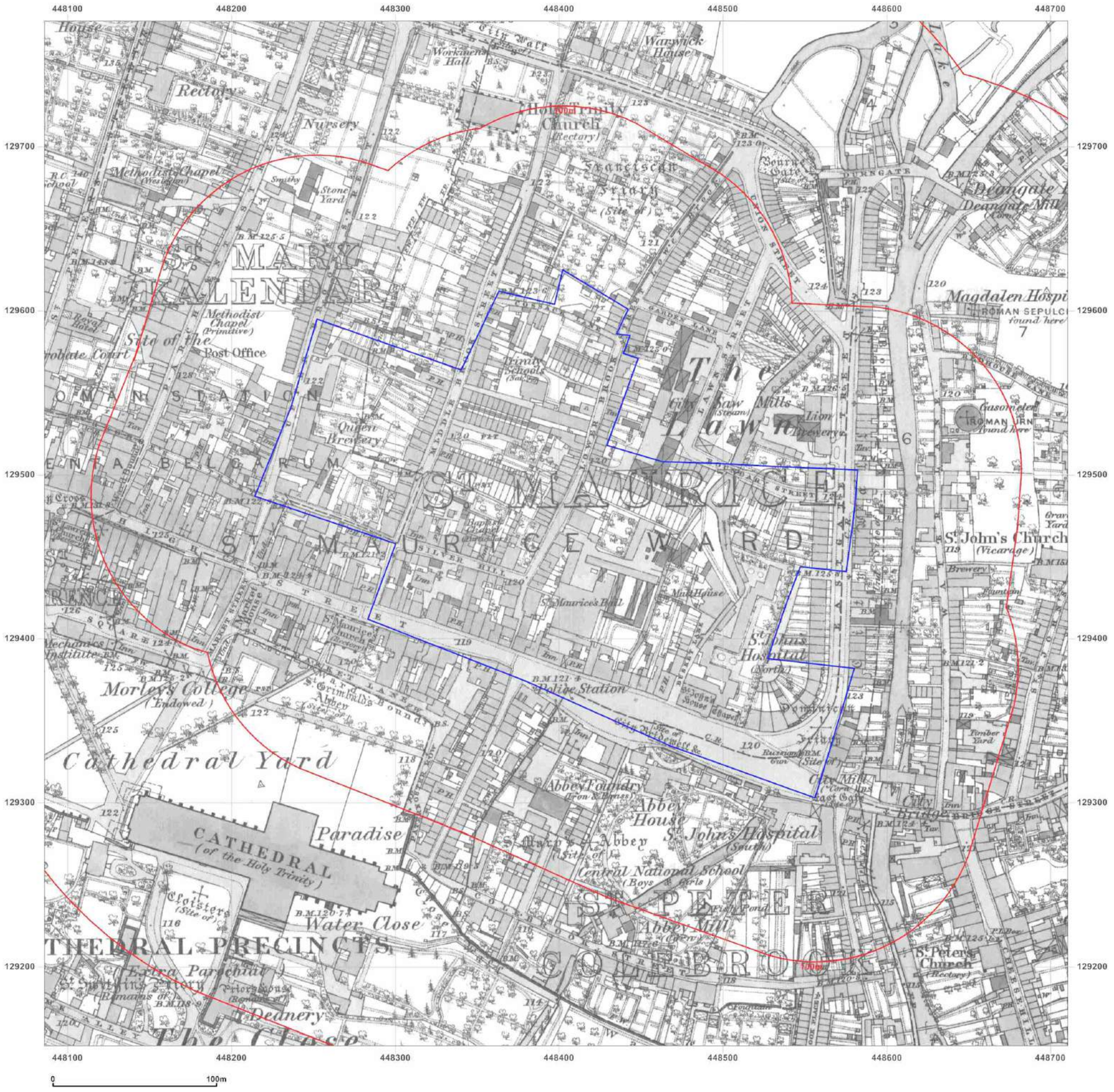

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK
STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1871**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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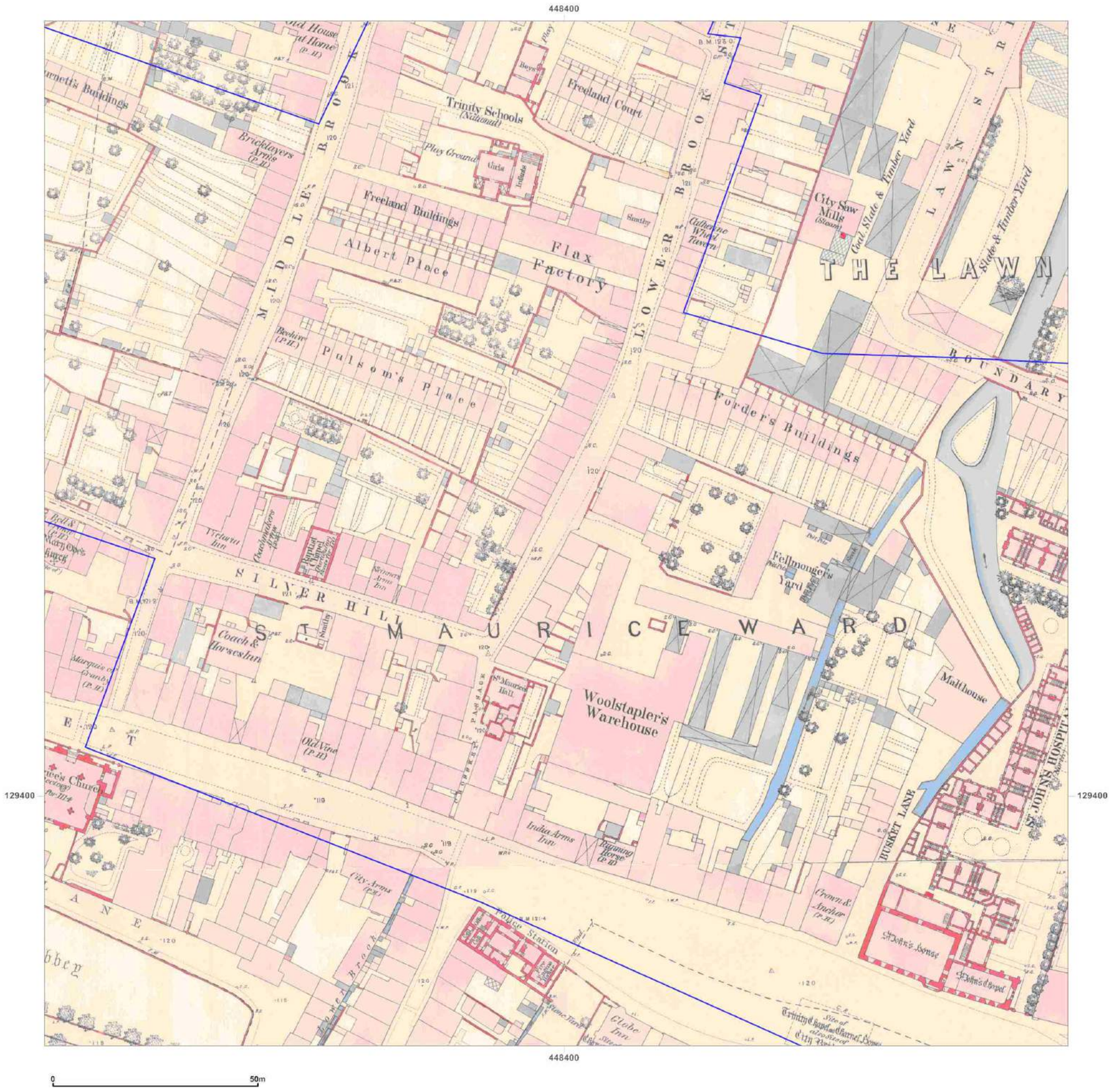

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series Town Plan

Map date: **1871**

Scale: 1:500

Printed at: 1:1,000

N
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Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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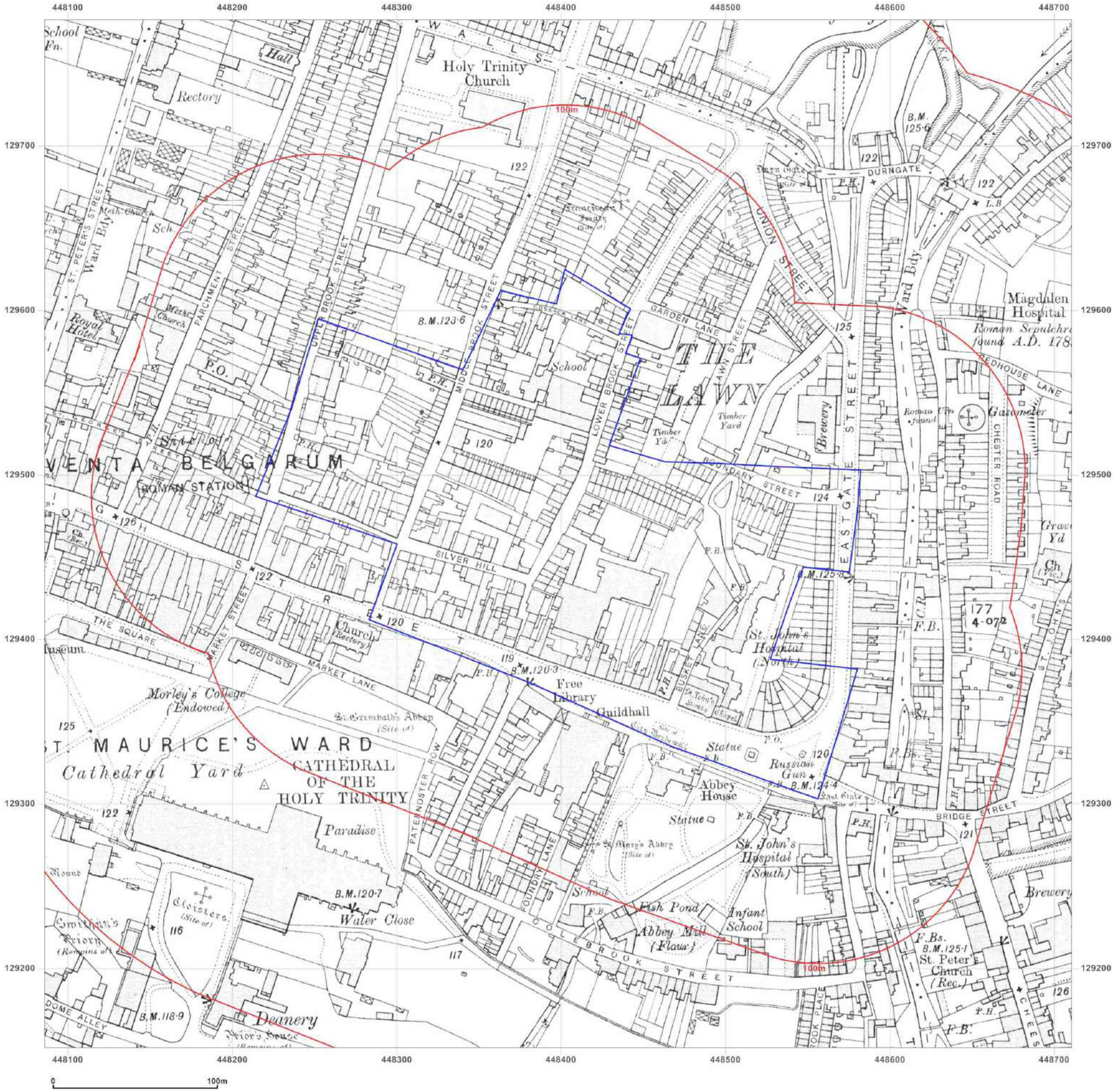

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1909**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1870
Revised 1908
Edition 1909
Copyright N/A
Levelled N/A

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Site Details:

WINCHESTER CITY COUNCIL,
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STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1932**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1870
Revised 1931
Edition 1932
Copyright N/A
Levelled 1908

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Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1940**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1870
Revised 1940
Edition N/A
Copyright N/A
Levelled 1940

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1952**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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W: www.groundsure.com

Production date: 22 December 2016

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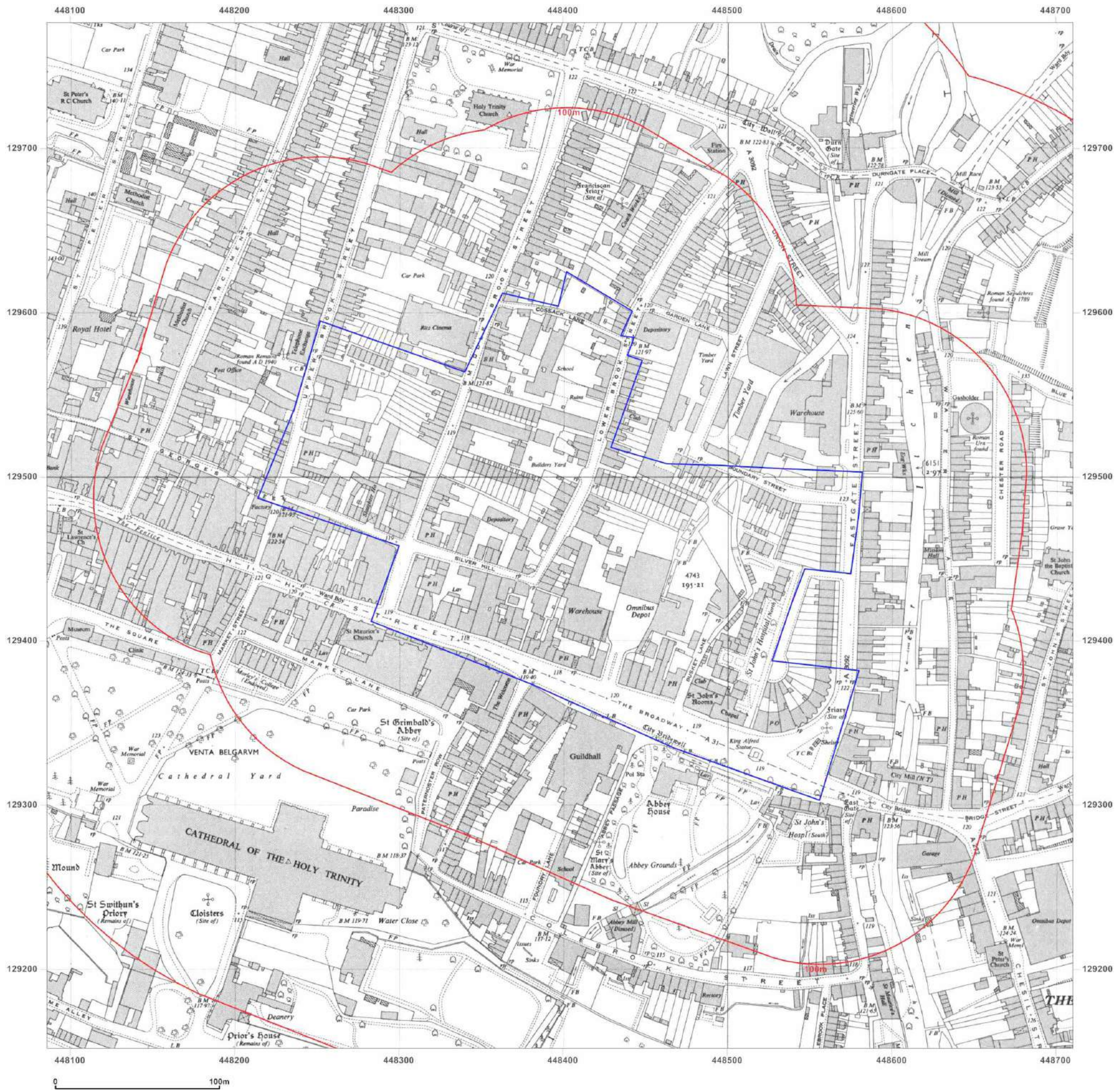

Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK
STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1940

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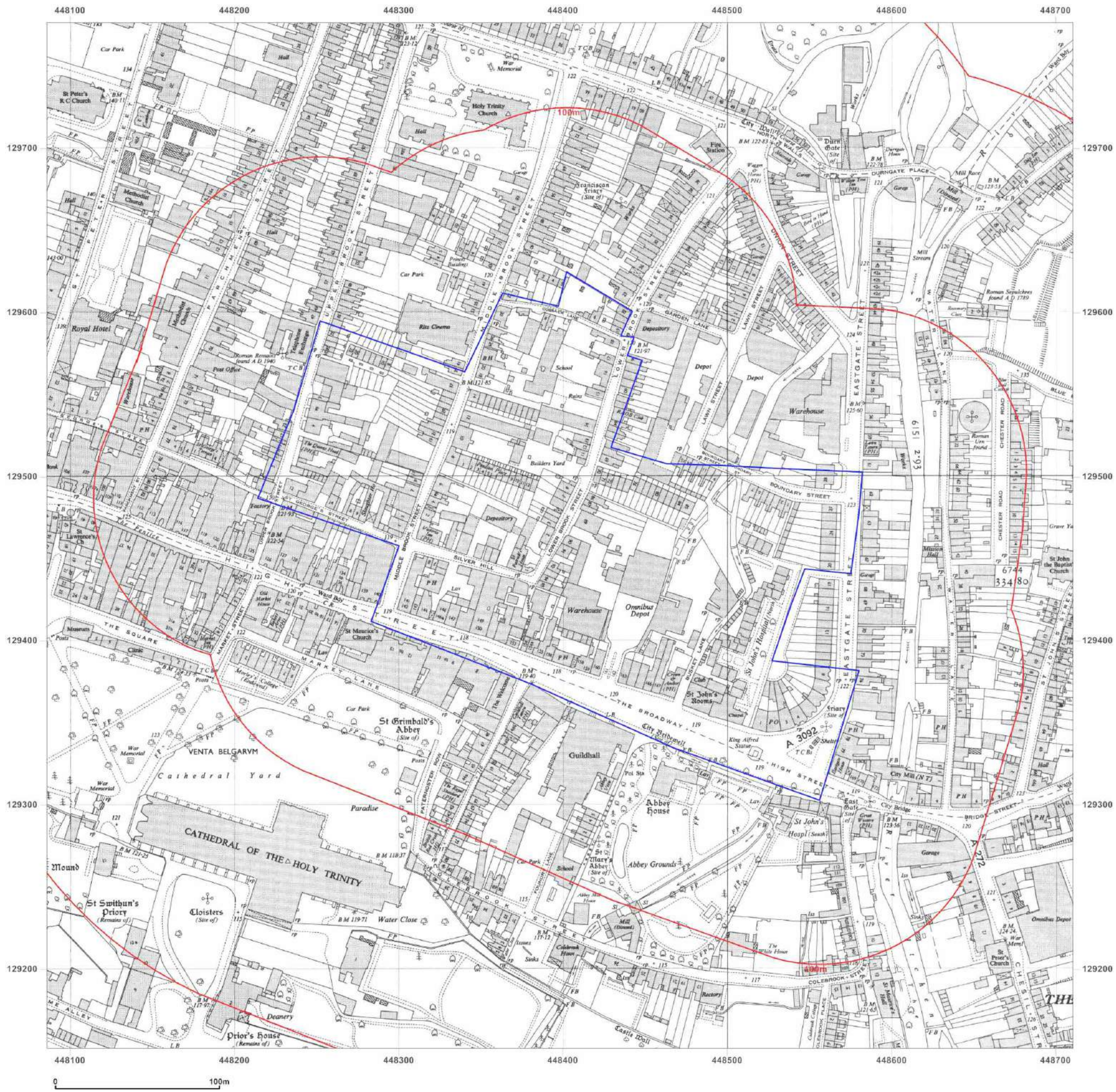
W: www.groundsure.com

Production date: 22 December 2016

To view map legend click here *Legend*



Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK
STREET, WINCHESTER, SO23
9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1960**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1960
Revised 1960
Edition 1962
Copyright 1962
Levelled 1959

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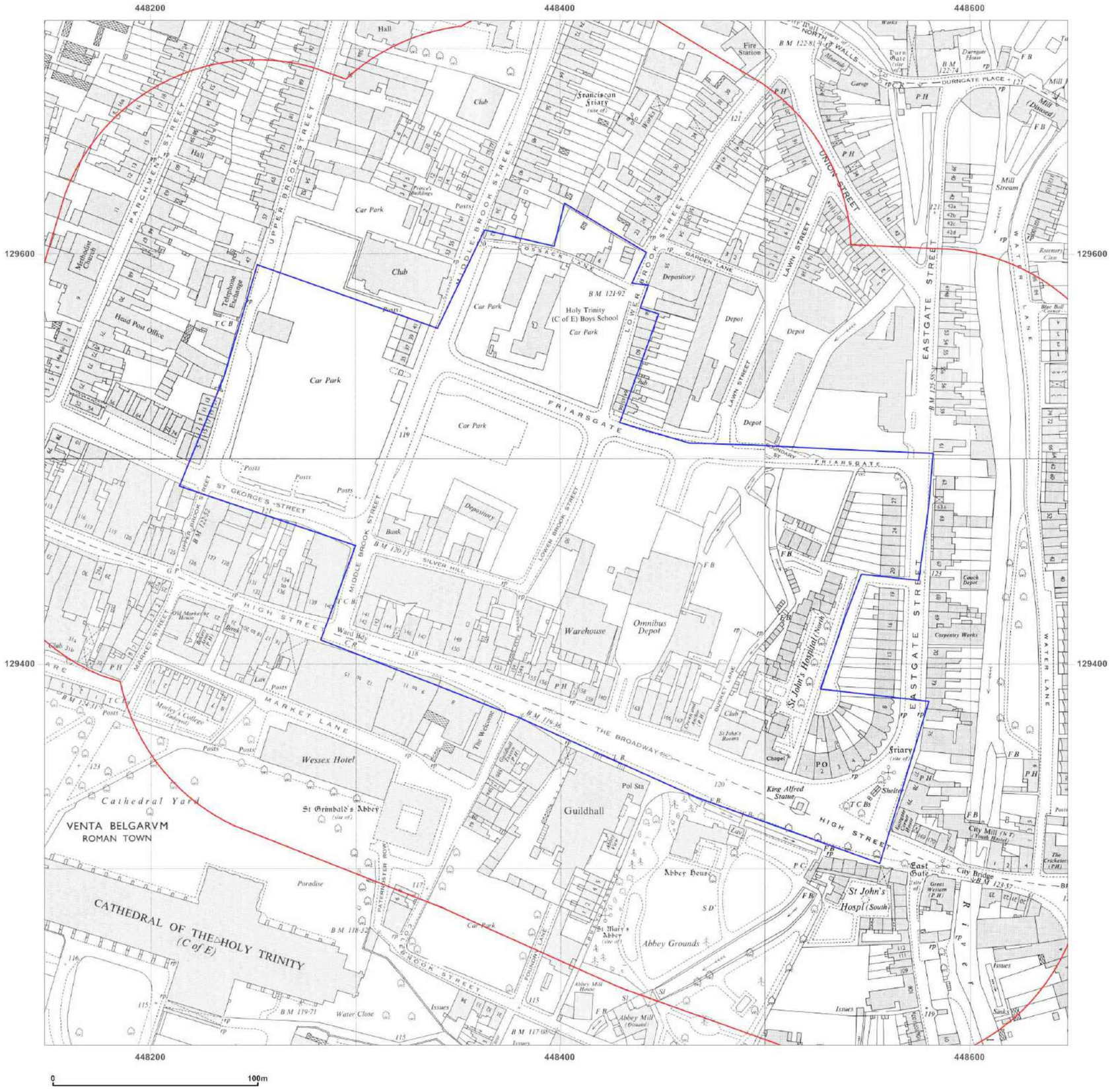
Production date: 22 December 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1963-1967**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1952 Revised 1964 Edition N/A Copyright 1965 Levelled 1958	Surveyed 1952 Revised 1962 Edition N/A Copyright 1963 Levelled 1958
Surveyed 1952 Revised 1964 Edition N/A Copyright 1965 Levelled 1958	Surveyed 1952 Revised 1966 Edition N/A Copyright 1967 Levelled 1958

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W: www.groundsure.com

Production date: 22 December 2016

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Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1967**

Scale: 1:1,250

Printed at: 1:2,000

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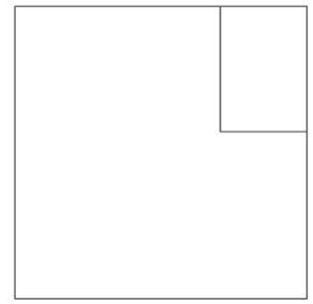
Surveyed 1952
Revised 1966
Edition N/A
Copyright 1967
Levelled 1958



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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1967**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1967
Revised 1967
Edition N/A
Copyright 1969
Levelled 1959

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1973-1975**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1952
Revised 1973
Edition N/A
Copyright 1973
Levelled 1958

Surveyed 1952
Revised 1974
Edition N/A
Copyright 1974
Levelled 1958

Surveyed 1952
Revised 1975
Edition N/A
Copyright 1975
Levelled 1958

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1985-1987**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed N/A Revised N/A Edition N/A Copyright 1985 Levelled 1958	Surveyed N/A Revised N/A Edition N/A Copyright 1987 Levelled 1958
Surveyed 1958 Revised 1985 Edition N/A Copyright 1985 Levelled 1958	Surveyed 1958 Revised 1985 Edition N/A Copyright 1985 Levelled 1958

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Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1988
Levelled 1958

Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed 1958
Revised 1989
Edition N/A
Copyright 1989
Levelled 1958

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Production date: 22 December 2016

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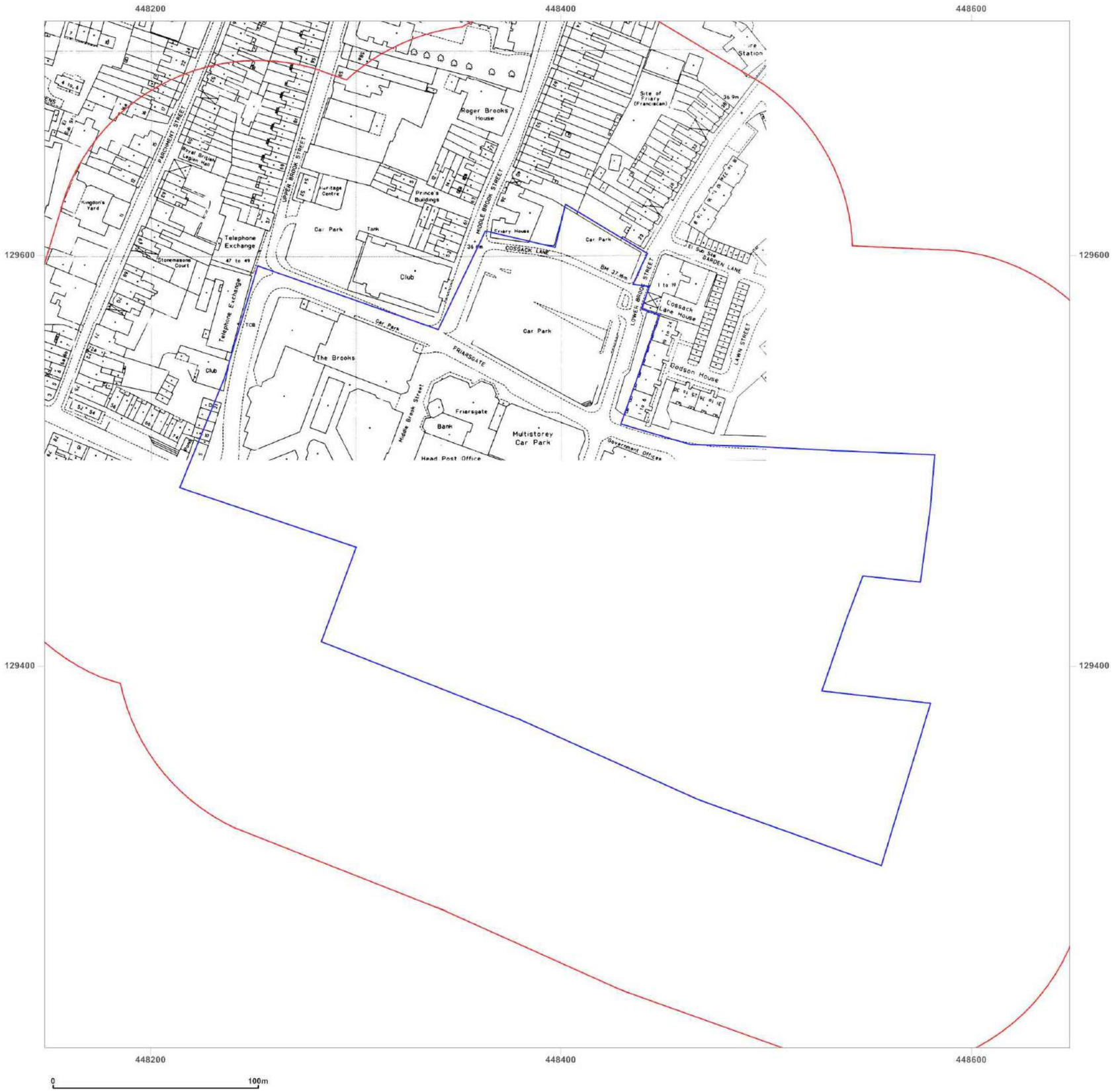


Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

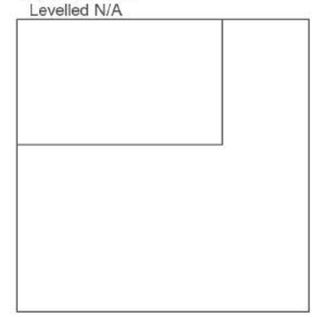
Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



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Groundsure INSIGHTS

Site Details:

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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed N/A Revised N/A Edition N/A Copyright 1988 Levelled 1958	Surveyed 1990 Revised 1990 Edition N/A Copyright 1991 Levelled N/A
Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A	Surveyed 1958 Revised 1988 Edition N/A Copyright 1988 Levelled 1958

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1994 Revised N/A Edition N/A Copyright 1994 Levelled N/A		Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled 1958

Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

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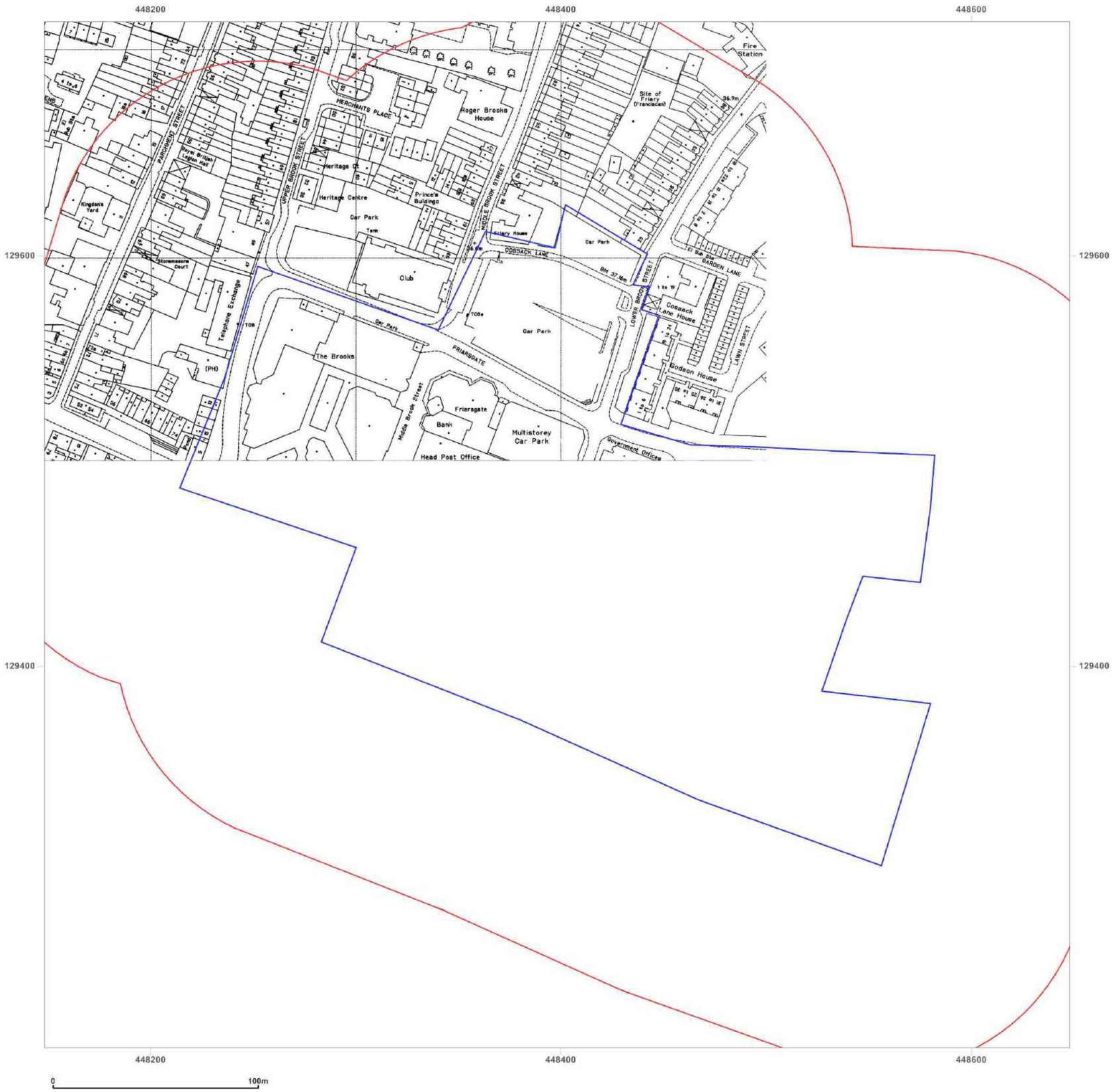


Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

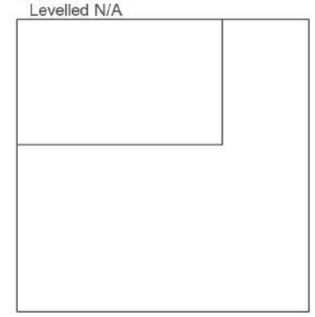
Map date: **1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A



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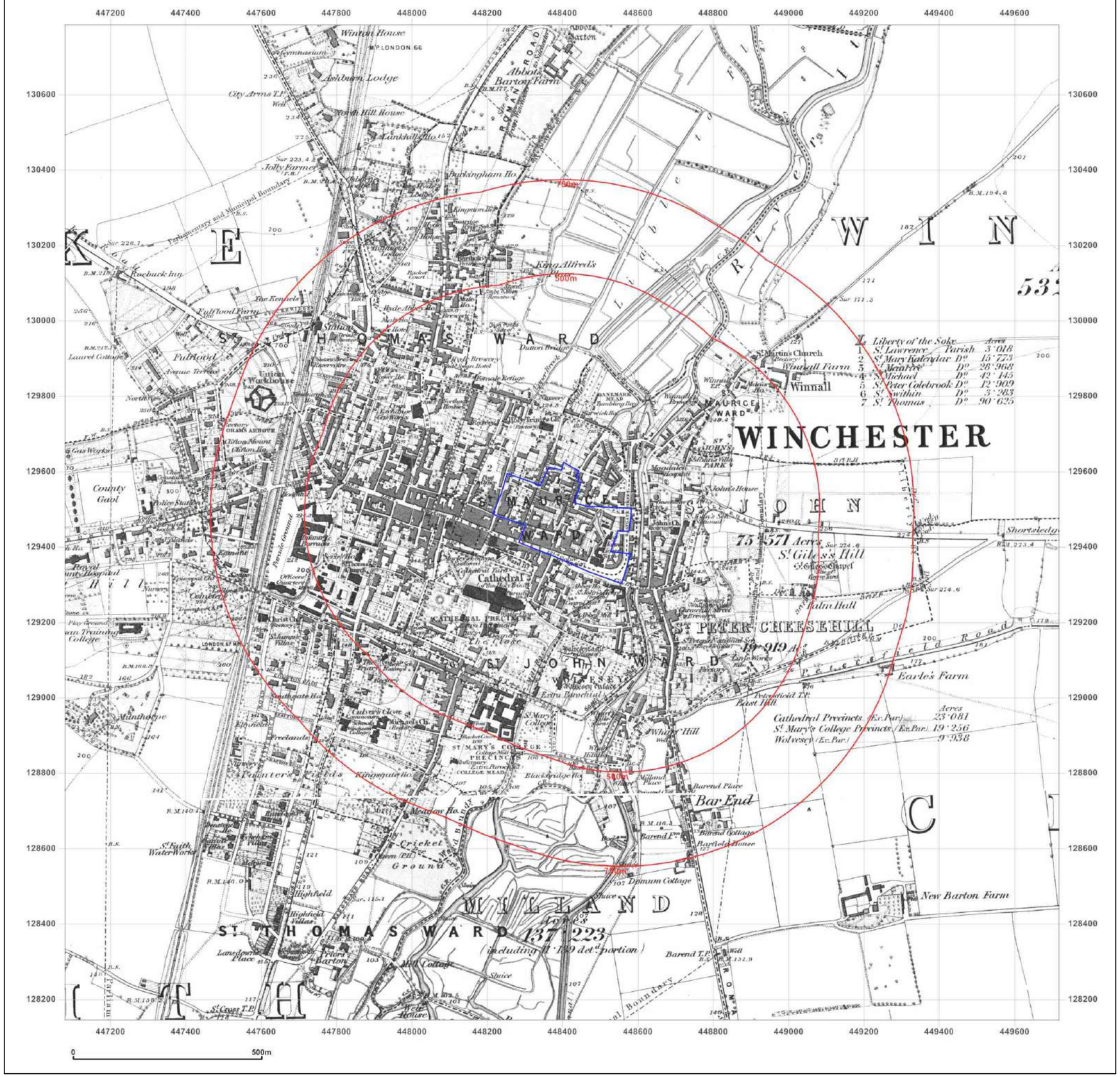

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1870-1874**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1869
Revised N/A
Edition 1874
Copyright N/A
Levelled 1873

Surveyed 1870
Revised 1870
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1895-1898**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1870
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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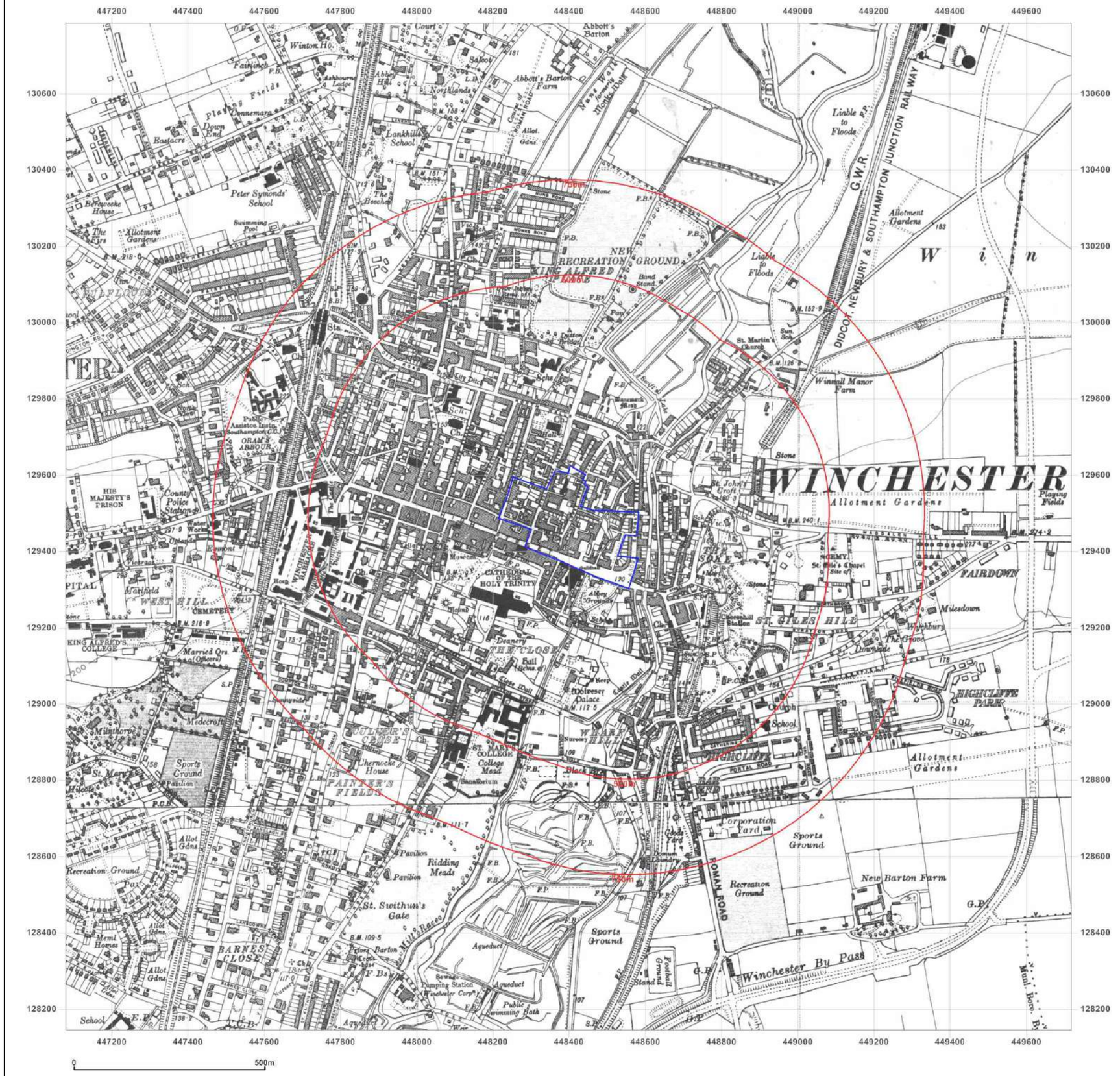

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1870
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1869
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

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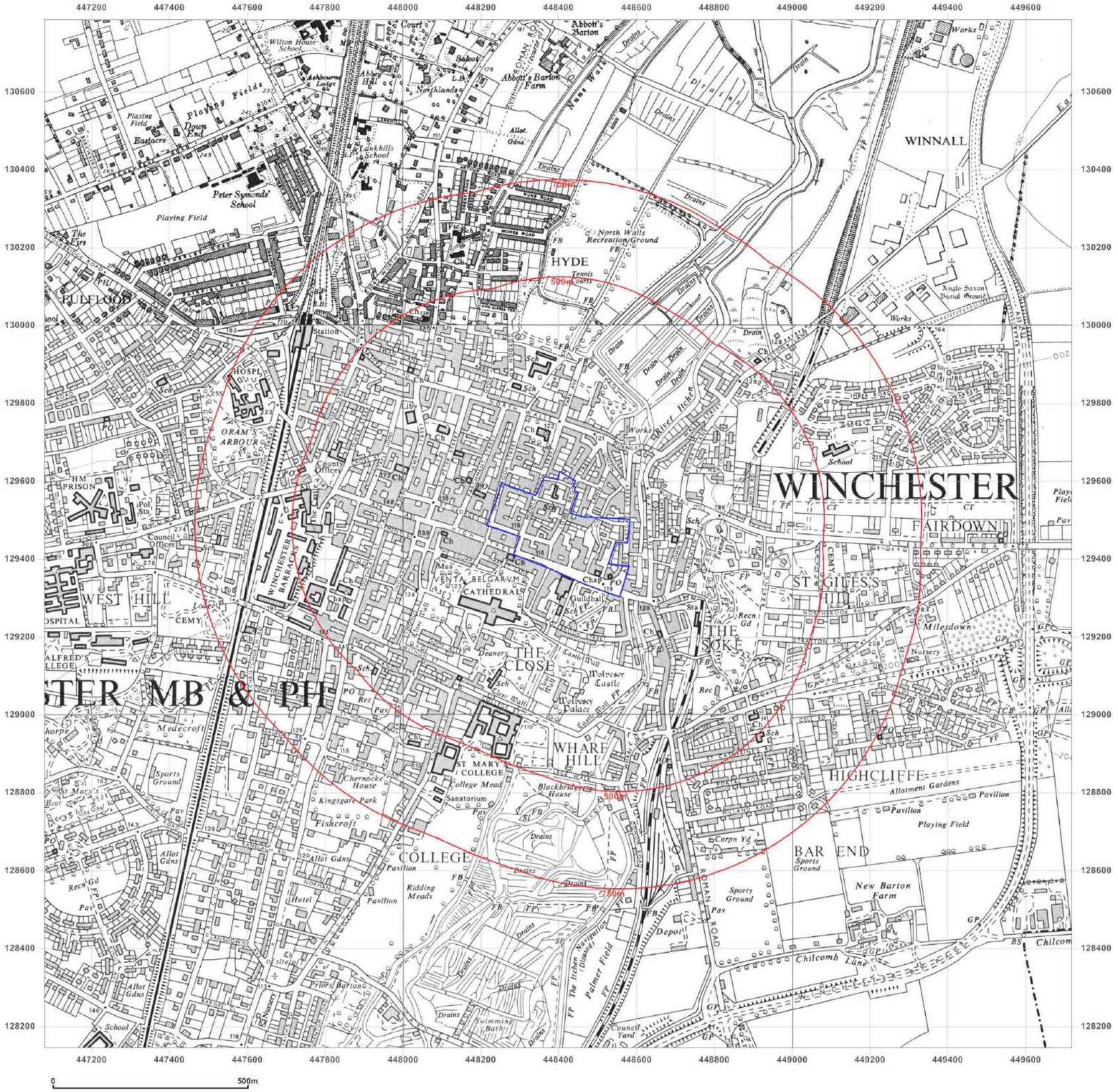

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: Provisional

Map date: **1957-1961**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1957
Revised 1961
Edition N/A
Copyright 1962
Levelled N/A

Surveyed 1870
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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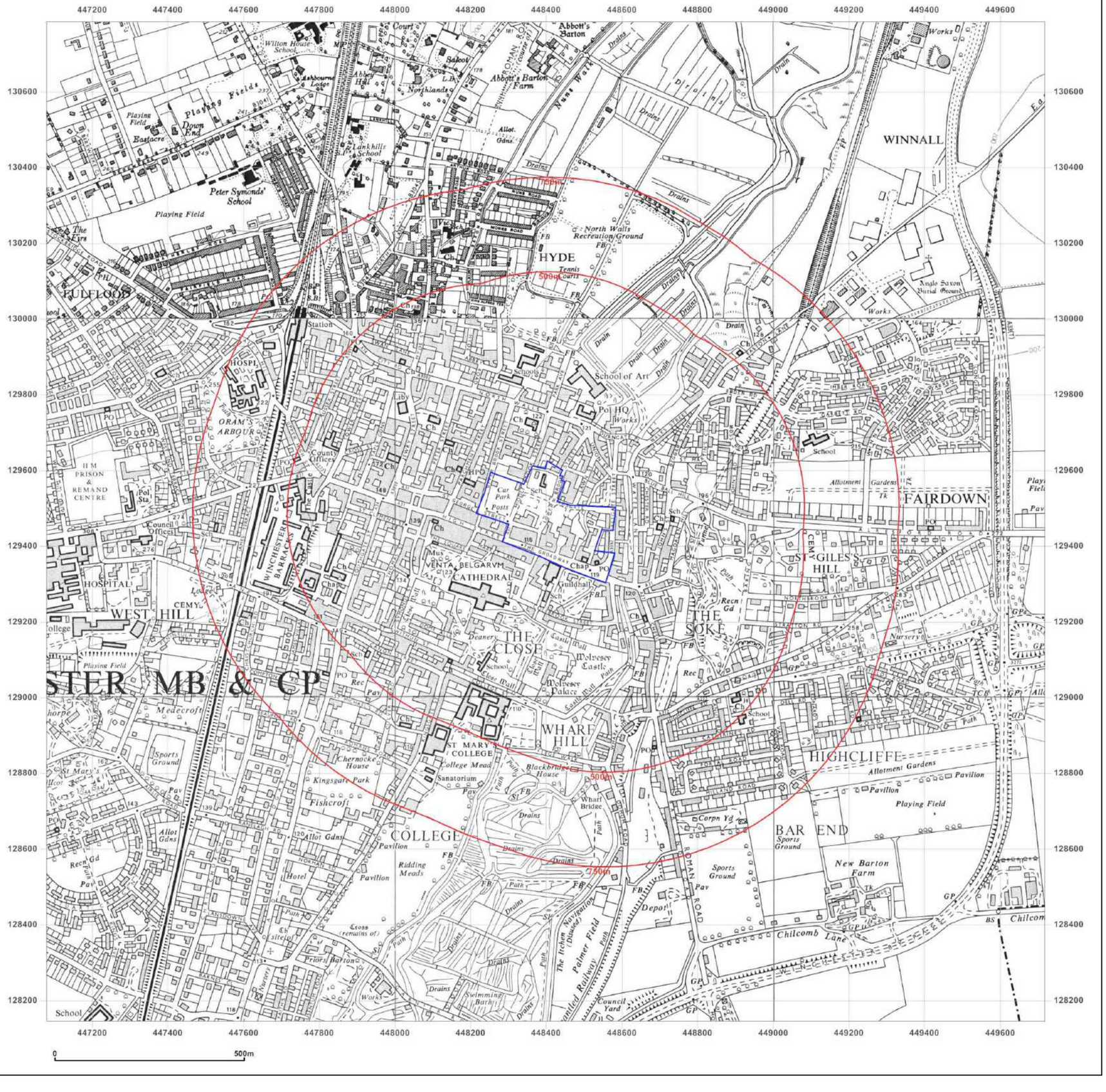

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: Provisional

Map date: **1966-1968**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed N/A
Revised 1966
Edition 1962
Copyright 1962
Levelled N/A

Surveyed 1968
Revised 1968
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
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Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1977-1981**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
Levelled 1975

Surveyed 1981
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1987-1989**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1983
Revised 1987
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1988
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: 1:10,000 Raster
Map date: **2002**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
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2002

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Production date: 22 December 2016

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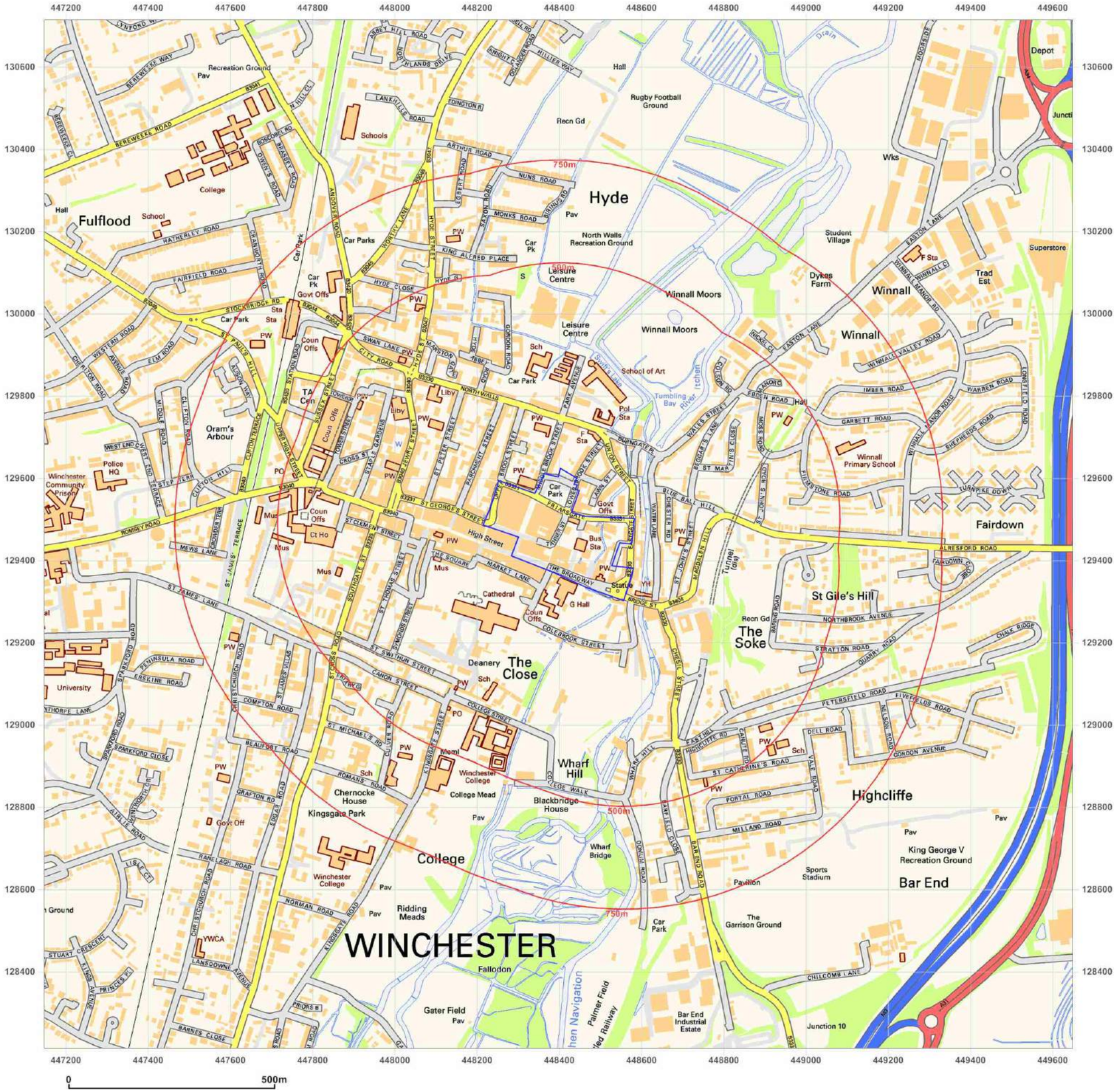

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **2014**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

2014

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Production date: 22 December 2016

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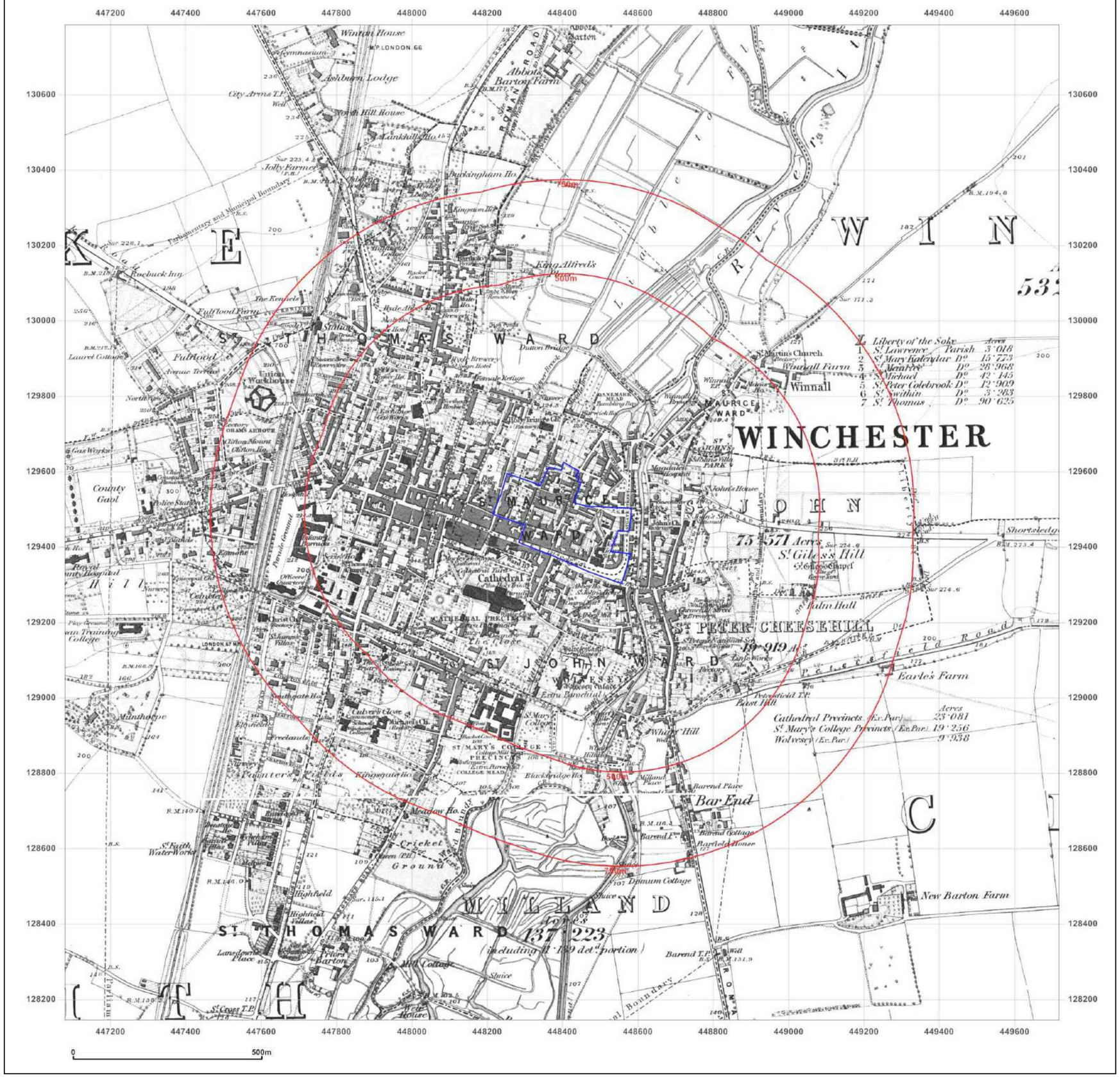

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1870-1874**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1869
Revised N/A
Edition 1874
Copyright N/A
Levelled 1873

Surveyed 1870
Revised 1870
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1895-1898**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1870
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1908**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1870
~~Revised 1908~~
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1869
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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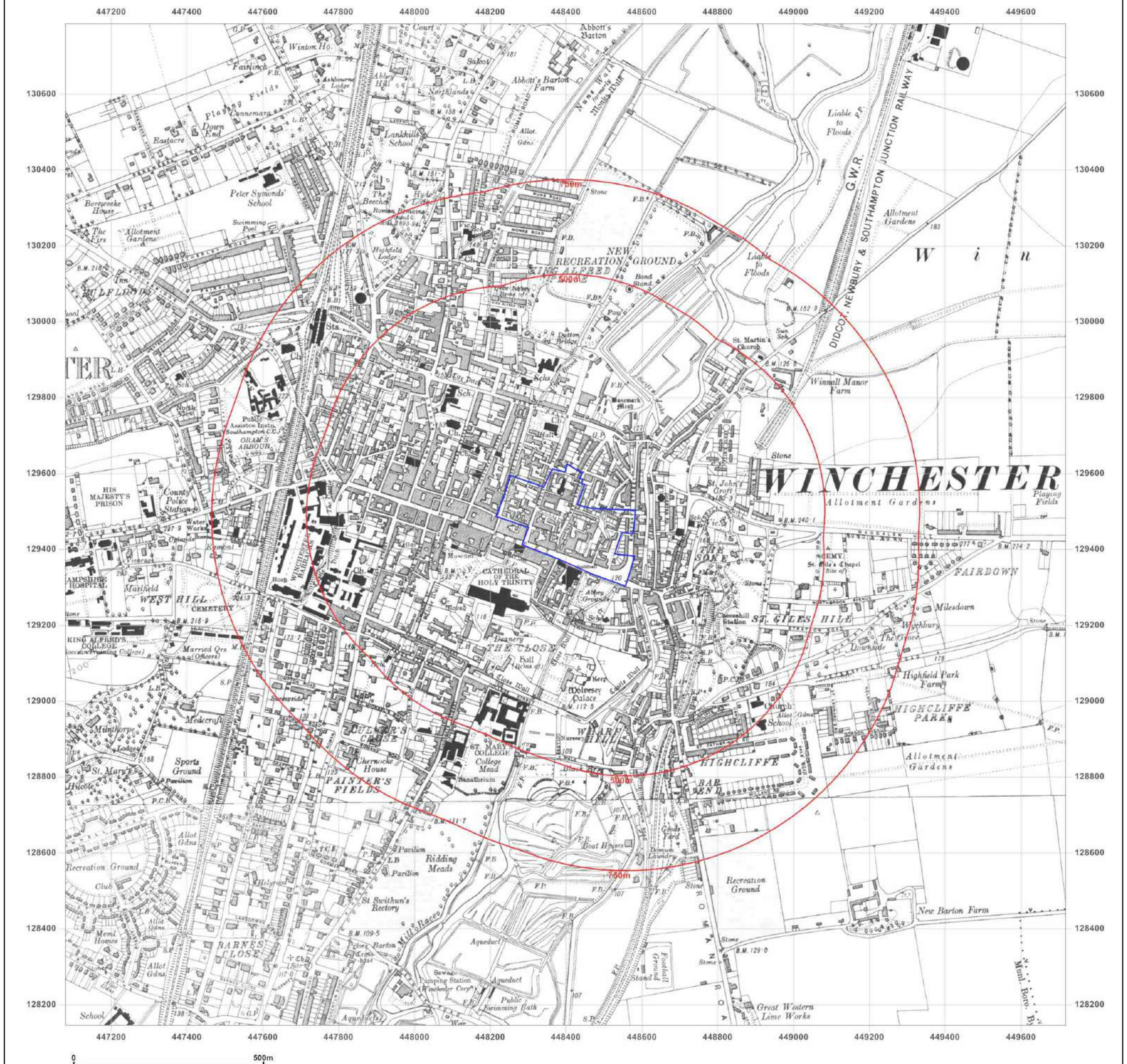

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1931**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1870
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1869
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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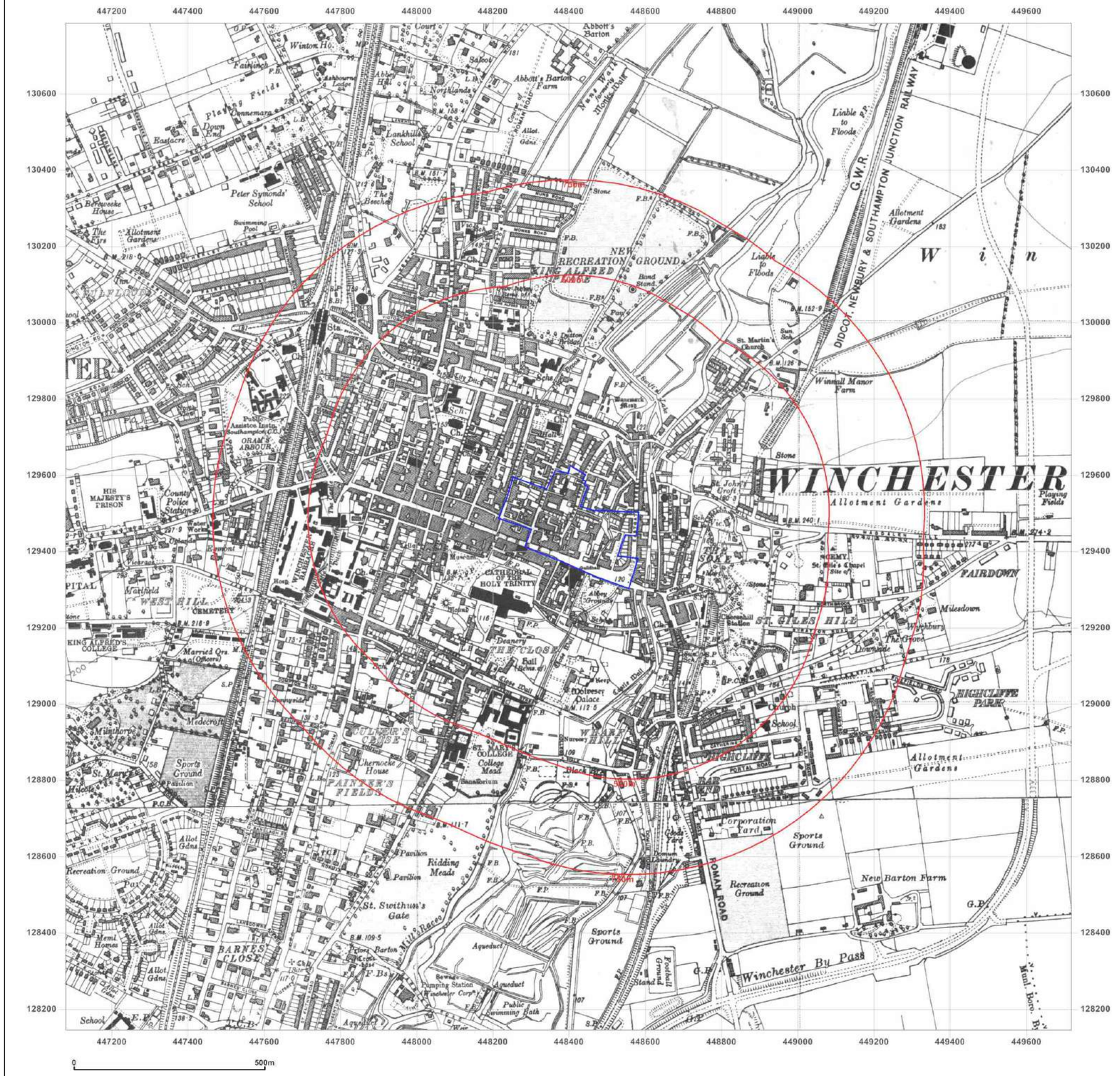

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1870
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1869
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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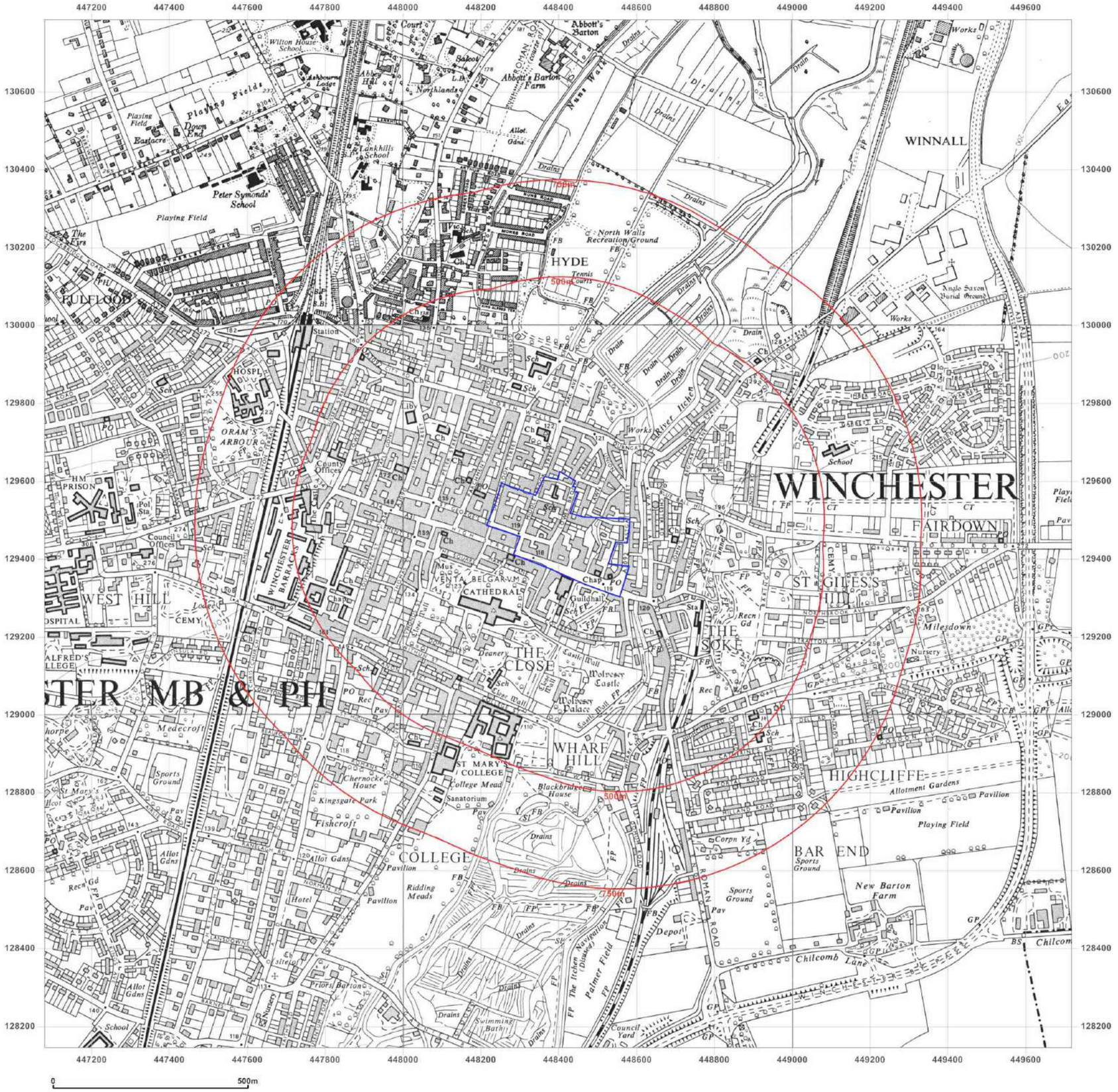

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: Provisional

Map date: **1957-1961**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1957
Revised 1961
Edition N/A
Copyright 1962
Levelled N/A

Surveyed 1870
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

Production date: 22 December 2016

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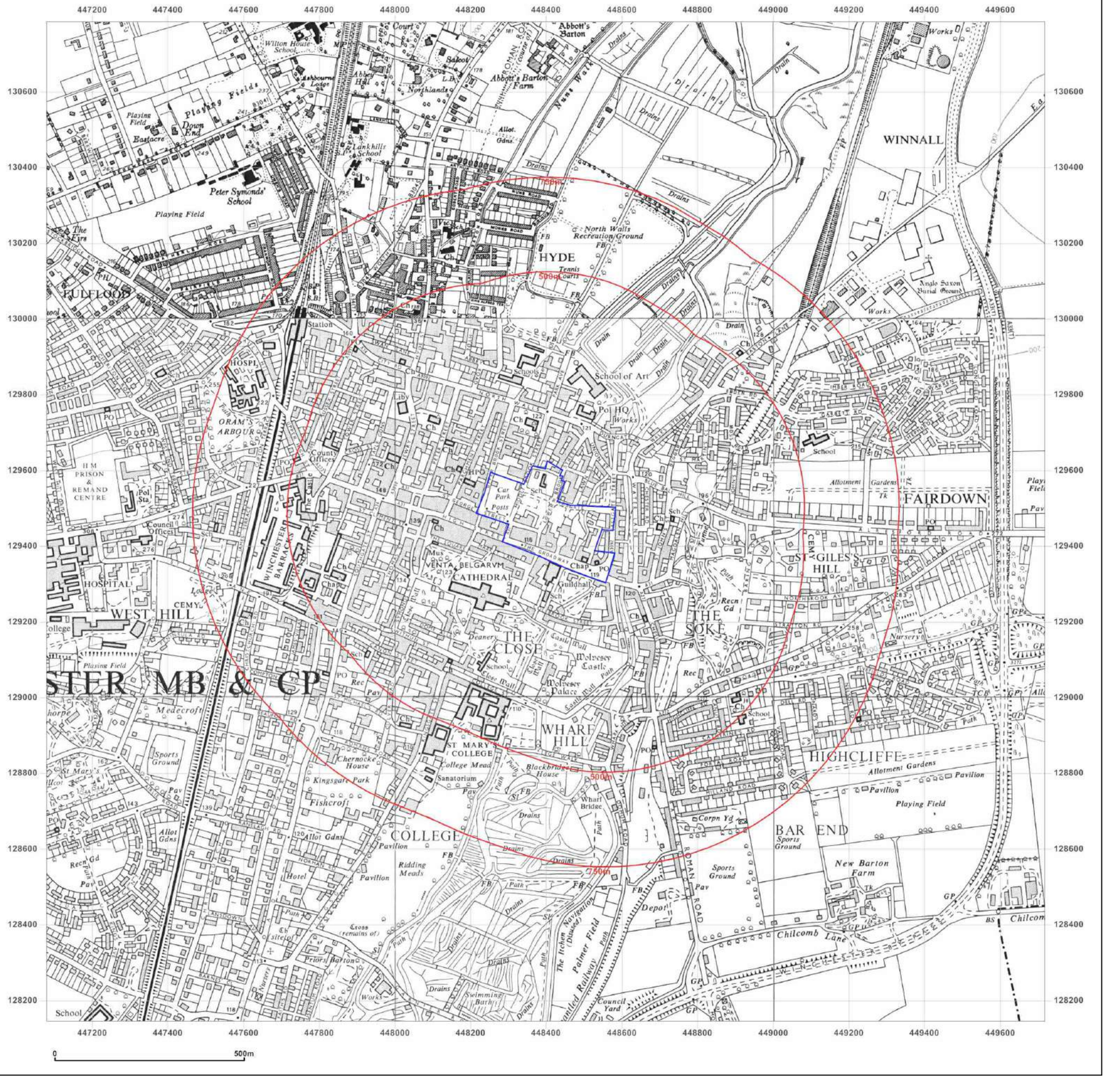

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: Provisional

Map date: **1966-1968**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed N/A
Revised 1966
Edition 1962
Copyright 1962
Levelled N/A

Surveyed 1968
Revised 1968
Edition N/A
Copyright N/A
Levelled N/A

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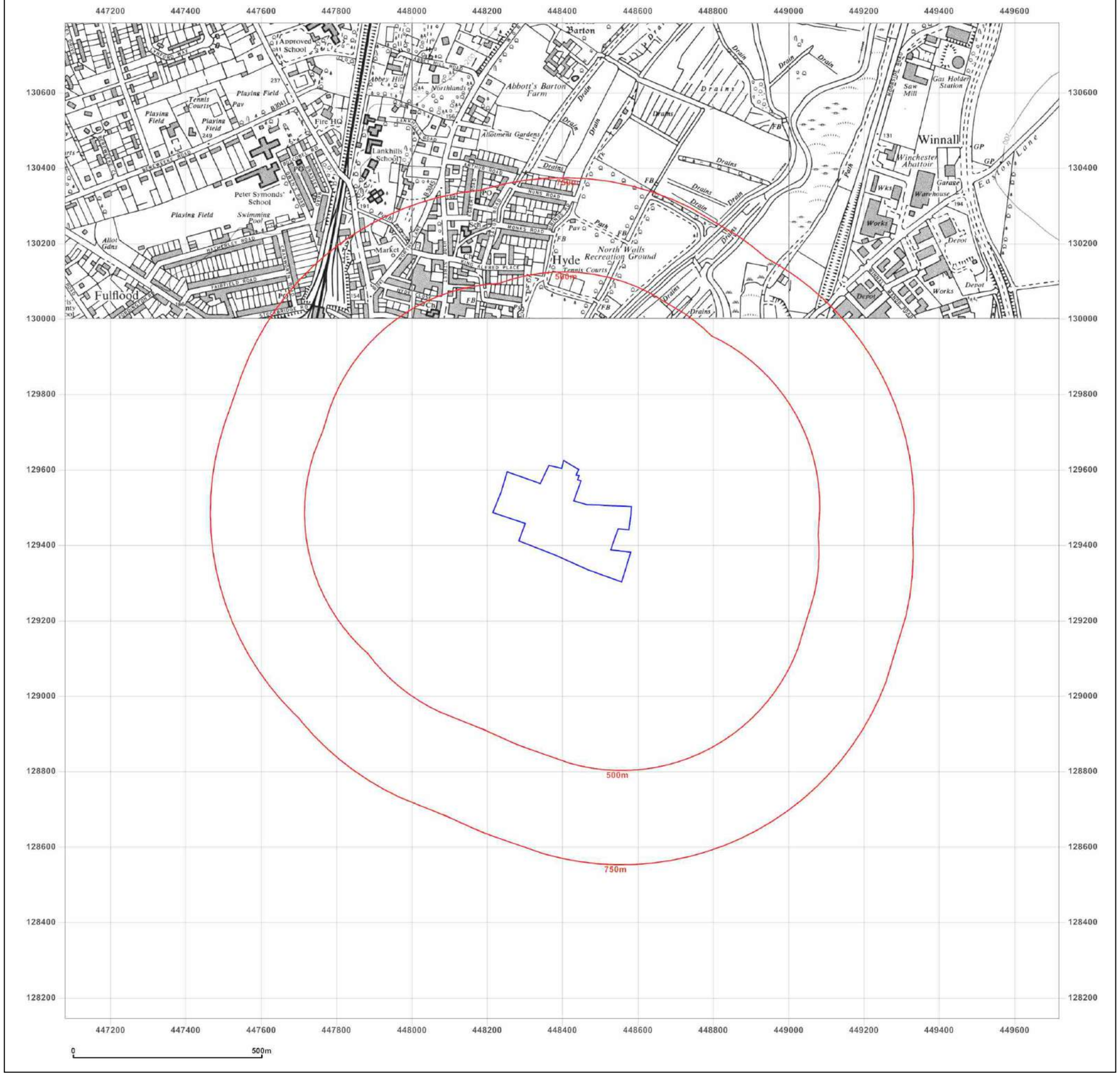
Production date: 22 December 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: Provisional

Map date: **1969**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1969
Revised 1969
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure Insights
T: 08444 159000
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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL,
CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1977-1981**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
Levelled 1975

Surveyed 1981
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

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Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **1987-1989**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1983
Revised 1987
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1988
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 December 2016

To view map legend click here *Legend*

Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: 1:10,000 Raster
Map date: **2002**
Scale: 1:10,000
Printed at: 1:10,000

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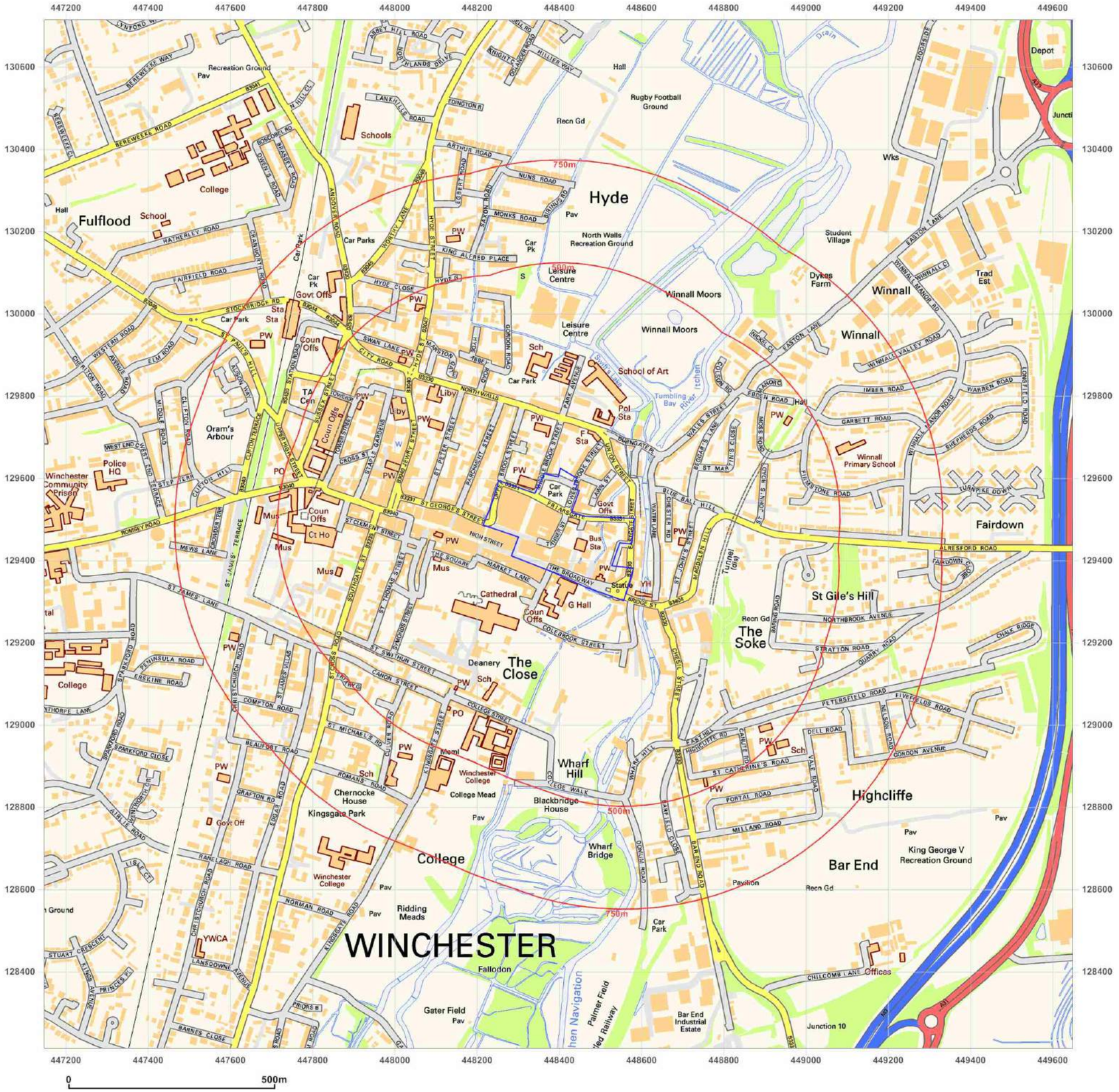
2002

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 December 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

2010

Powered by

Produced by
Groundsure Insights
T: 08444 159000
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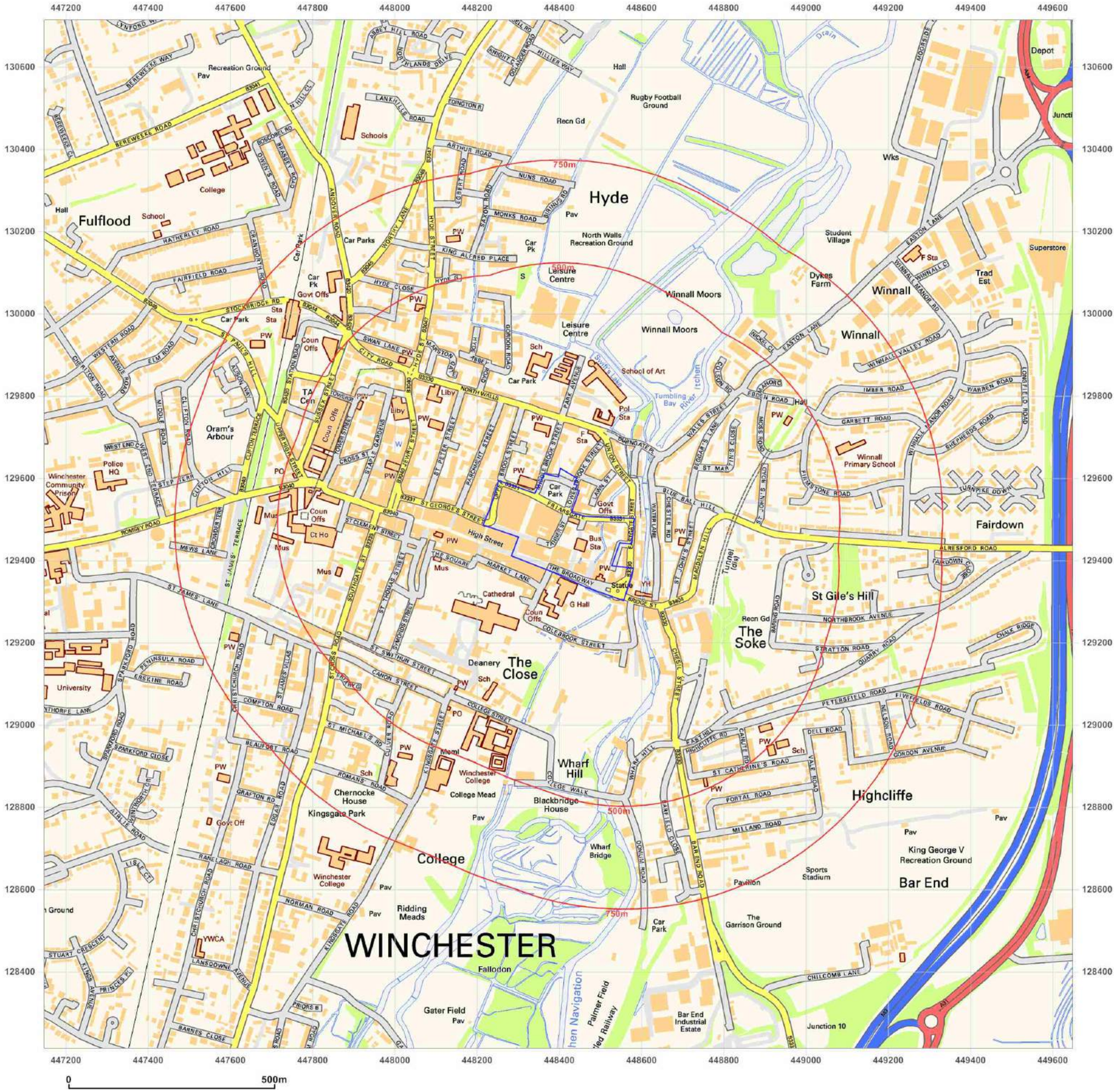
W: www.groundsure.com

Production date: 22 December 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

WINCHESTER CITY COUNCIL, CITY OFFICES, COLEBROOK STREET, WINCHESTER, SO23 9LJ

Client Ref: JER1070_-_Central_Winchester_
Report Ref: RPS-3539600
Grid Ref: 448398, 129464

Map Name: National Grid

Map date: **2014**

Scale: 1:10,000

Printed at: 1:10,000

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2014

Powered by OS

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T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 22 December 2016

To view map legend click here *Legend*

APPENDIX 4

Site Photographs (10/01/2017)

View west down the High Street from The Broadway.

View east along The Broadway.

Winchester Bus Station, parking area.

Winchester Bus Station, service yard.

Winchester Bus Station, maintenance area.

Entrance to Winchester Bus Station, off The Broadway.

Looking east on The Broadway, close to statue of King Alfred.

Derelict building on Friarsgate.

Watercourse to north of Friarsgate.

Commercial buildings on Friarsgate.

Demolition on Tanner Street.

Brooks Shopping Centre from Upper Brook Street.

Watercourse outside derelict building on Friarsgate.

View west along Silver Hill to Brooks Shopping Centre

View west along Silver Hill from Tanner Street.