



Phase I Geoenvironmental Site Assessment
Fairways Lodge, Prestwich

Reference: 17-206-R1-1
Date: September 2023



PHASE I GEOENVIRONMENTAL SITE ASSESSMENT

Fairways Lodge
George Street
Prestwich
Greater Manchester
M25 9WS

Prepared for:
McCarthy & Stone Ltd

McCARTHY STONE
Life, well lived

Report Ref: 17-206-R1-1
Date Issued: September 2023

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EXECUTIVE SUMMARY

Site Address	Fairways Lodge, George Street, Prestwich, Greater Manchester, M25 9WS
Grid Reference	E 381724, N 402447
Site Area	0.61 Ha
Proposed Development	McCarthy & Stone proposes to construct a retirement home comprising c. 32 one bed apartments and 20 two bed apartments with associated infrastructure, car parking and soft landscaping.
Current Site Use	The site comprises an irregular shaped parcel of land located to the south of George Street in Prestwich. The recently constructed Bellway Homes development site is located adjacent to the east and south. Fairways Lodge (hotel and leisure club) covers the majority of the site, with hardstanding car park areas in the north and east of the site. Mature trees are present along the northern and western site boundaries, with additional sporadic trees and areas of soft standing. Himalayan Balsam was noted in the southeast sector.
Site History	Historical mapping from 1848 suggests that pond/reservoirs were present on site, likely associated with the adjacent Bleach and Dye Works to the south. The reservoir furthest north was no longer recorded by 1932 and a Bowling Green was installed in the centre of the site with a small Pavilion. The reservoir in the south appears to have been infilled by 1973. The current building was constructed by 1988 and recorded as a Club. The building was later noted to be the Village Hotel. No significant changes have occurred since circa 1988.

ENVIRONMENTAL SETTING

Geology	Drift Geology	Hummocky Glacial Deposits – SAND and GRAVEL
	Bedrock Geology	Chester Sandstone Formation (northern sector) Pennine Upper Coal Measures Formation (southern sector) Collyhurst Sandstone Formation (southwest sector)
	Faults	A fault is recorded through the central southern sector of the site, trending NW to SE, with the downthrow to the northeast.
Hydrogeology	Secondary A Aquifer (drift) overlying Secondary A Aquifer and Principal Aquifer (solid). The closest groundwater abstraction is located 222 m southwest at Prestwich Golf Club for spray irrigation. There are no potable abstractions within 1 km.	
Hydrology	Singleton Brook is located 151 m south.	
Utility Locations	A utility survey has been completed which has identified foul sewers and surface water sewers in the north and west of the site. BT and LV cables enter the building from the north.	



Landfill Sites and Ground Gases	Two historical landfill sites are located within 250 m. The closest is located 80 m southeast at the former Mountheath Industrial Park, however the site has now been remediated to form the Bellway Homes development. The landfill received waste from 1979 to 1980, the material is recorded as originating from general construction works and is not domestic refuse. A historical landfill is also recorded 195 m southwest at Heathlands Drive. No further details are available. The site has undergone some historical development and ground working, the Made Ground associated with the historical development may produce hazardous ground gases such as methane and carbon dioxide.
Radon	Less than 1% of houses above the 'Action Level' – no special precautions required.
Hazardous Installations	No hazardous installations that could potentially prejudice the proposed construction of highly sensitive residential dwellings have been identified within influencing distance of the subject site.

PRELIMINARY CONTAMINATED LAND ASSESSMENT

Human Health	Made Ground associated with the infilled ponds/reservoirs and construction and demolition activities may contain heavy metals, PAHs, TPHs and ACM. The former tanks located at the southern site boundary are a potential source of PAHs, TPHs, SVOCs and VOCs. However, investigation completed as part of the E3P works on the adjacent site did not identify any evidence of contamination in the location of the historical tanks. The former bleach and dye works to the south of the site has been remediated, therefore no residual impact is anticipated.
Controlled Waters	The former bleach and dye works historically located to the south of the site is a potential source of mobile contamination, however the site has been remediated and no impact was identified in the deep borehole drilled into the bedrock aquifer. Granular soils may provide a potential pathway, however cohesive drift deposits will inhibit migration towards the underlying aquifers. The sensitivity of the aquifers is reduced, given there are no potable abstractions within 1km. Intrusive investigation with chemical analysis of soil and groundwater samples is recommended to assess the presence of mobile contaminants and facilitate further risk assessment.
Ground Gas	Made Ground and potential organic deposits may produce hazardous ground gases such as carbon dioxide and methane which have associated asphyxiation and explosive risks. An appropriate ground gas risk assessment will be required as part of the ground investigation works to assess this risk.

PRELIMINARY COAL MINING ASSESSMENT

Coal Mining/Land Stability	The site is not located within a Coal Authority deemed High-Risk Development Area. There are no outcrops or mine shaft entries in close proximity. No further assessment is required in relation to coal mining.
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PRELIMINARY GEOTECHNICAL ASSESSMENT

Initial Geotechnical Assessment	Several historically infilled ponds and reservoirs are present within the site boundary, which are potential sources of alluvial deposits, silts and possible organic peat deposits, and potential depths of Made Ground. An investigation will be required to assess these and undertake in-situ geotechnical testing to determine the potential foundation solution for plots in these areas.
Brine Workings	The site is not located within an area affected by brine workings.
Civil and Structural	Significant cut and fill works are not anticipated. It is likely there will be significant Made Ground fill deposits and obstructions. The existing building will require demolition, with all relict foundations grubbing out before the proposed development's construction.
Abnormal Foundations	Foundations will be dependent on proposed ground levels. An abnormal engineering solution may be required where there is significant thickness of Made Ground, tree influence, loose granular soils or soft cohesive deposits.

CONCLUSIONS AND RECOMMENDATIONS

A detailed Phase II intrusive Geoenvironmental Site Assessment should be undertaken to confirm the findings of the initial conceptual site model and value engineer a development solution.



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DRAWING LIST

17-206-001 - Site Location Plan
17-206-002 - Proposed Development Plan
17-206-003 - Historical Features Plan
17-206-004 - Site Features Plan



1. INTRODUCTION

1.1. BACKGROUND

E3P has been commissioned by McCarthy & Stone (the client) to undertake a detailed Phase I Geoenvironmental Site Assessment for Fairways Lodge in Prestwich, Greater Manchester; herein referred to as the site.

This report is required to determine potentially contaminated land and geotechnical liabilities for the proposed site redevelopment.

1.2. PROPOSED DEVELOPMENT

McCarthy & Stone proposes to construct a retirement home comprising c. 32 one bed apartments and 20 two bed apartments with associated infrastructure, car parking and soft landscaping. Drawing 17-206-002 (Appendix IV) identifies the proposed development layout.

A snapshot of the proposed development layout is indicated in Figure 1.1.

FIGURE 1.1 PROPOSED DEVELOPMENT PLAN



1.3. OBJECTIVES

The objectives of the geoenvironmental site assessment are as follows:

- ✿ Review historical plans, geology, hydrogeology, site sensitivity, floodplain issues, mining records and any local authority information available in order to complete a desk study in line with Environment Agency (EA) document *Land Contamination: Risk Management (LCRM)* (July 2023).
- ✿ Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site concerning the site's future use and in relation to off-site receptors.
- ✿ Assess the desk study information and, where possible, provide preliminary recommendations concerning foundations, pavement construction, general geotechnical issues, floor slabs and coal mining related issues.
- ✿ Provide recommendations regarding future works required.

1.4. SOURCES OF INFORMATION

- ✿ Groundsure Enviro+Geo Insight Search Reference GS-IF9-3X6-WN2-T89;
- ✿ Historical mapping dated 1848 - 2023. A selection of historical maps are reproduced in Appendix VI;
- ✿ Online planning records held by Bury Metropolitan Borough Council;
- ✿ Consultations with representatives of Bury Metropolitan Borough Council;
- ✿ Magic Map Groundwater Vulnerability Map;
- ✿ Radon: Guidance on protective measures for new buildings (BRE Document BR 211, 2007);
- ✿ British Geological Survey Map and Borehole Records;
- ✿ UXO - <https://zeticauxo.com/downloads-and-resources/risk-maps/>; and,
- ✿ Flood Risk - <https://map.sepa.org.uk/floodmap/map.htm>.

1.5. LIMITATIONS

The limitations of this report are presented in Appendix I.

1.6. RISK CLASSIFICATION

The description of risk classification and the likely action required as set out in CIRIA C552 are included in Appendix III.



1.7. CONFIDENTIALITY

E3P has prepared this report solely for the use of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such consent.



2. SITE SETTING

2.1. SITE DETAILS

Site Address	Fairways Lodge, George Street, Prestwich, Greater Manchester, M25 9WS
National Grid Reference	E 381724, N 402447
Site Area	0.61 Ha

The Glossary presented in Appendix II defines all acronyms used within this report.

A site location map is presented in Appendix IV as Drawing 17-206-001.

2.2. CURRENT SITE USE

A site walkover was completed by an E3P representative on Tuesday 12th September, with the full details included in Table 2.2.

TABLE 2.1 SITE DESCRIPTION

Occupancy/Use	The site comprises an irregular shaped parcel of land located to the south of George Street in Prestwich. The recently constructed Bellway Homes development site is located adjacent to the east and south. Fairways Lodge (hotel and leisure club) covers the majority of the site, with hardstanding car parking areas in the north and east of the site. Mature trees are present along the northern and western site boundaries, with additional sporadic trees and areas of soft standing. Himalayan Balsam was noted in the southeast sector.	
Structures	The Lodge building covers the majority of the site area. No further structures are present.	
Access	Vehicular and pedestrian access is present from George Street to the north.	
Slope	There is little topographic variance.	
Retaining Structures	No retaining structures are present within the site boundary.	
Surface Cover (%)	Buildings	60%
	Hardstand	35%
	Soft Cover	5%
Vegetation/Ecology	The site is predominantly covered in hardstanding and buildings. Mature trees are present along the northern and western site boundaries, with additional sporadic trees and areas of soft standing. Invasive plant species including Himalayan Balsam were noted in the south of the site.	
Hazardous Material Storage	Above-ground storage tanks (AST) were historically located at the southern site boundary. No further hazardous material storage has been identified.	



Asbestos-Containing Material (ACM)	The building present on-site was constructed prior to 1988 and therefore ACM may have been used within the building fabric. However, as ACM cannot be entirely discounted, it is recommended that copies of any asbestos surveys / registers are requested from the vendor. ACM may have been used in the former structures on-site and may not have been correctly managed during demolition. ACM (fibres and fragments) may therefore be present within the underlying Made Ground soils.
Polychlorinated Biphenyls (PCBs)	No equipment that may contain PCBs, such as transformers or electric substations, are identified on site or in close proximity to the site.
PFAS/PFOA	No potential on-site sources have been identified.
Waste Storage	None known within the site boundary and no licenced waste activities are identified within data searches on-site.
Drainage	A utility survey has been completed which has identified foul sewers and surface water sewers in the north and west of the site.

2.3. SURROUNDING AREA

The surrounding area land uses are summarised in Table 2.2.

TABLE 2.2 SURROUNDING LAND USES

DIRECTION	LAND USE
North	Residential dwellings.
East	Residential dwellings.
South	Residential dwellings.
West	Prestwich Golf Club

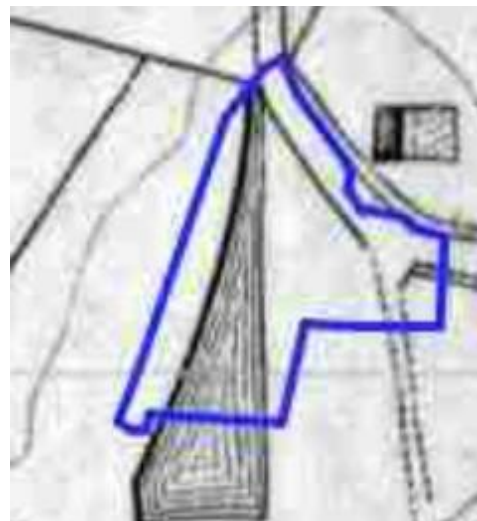


3. SITE HISTORY

3.1. ON-SITE HISTORICAL DEVELOPMENT

A review of historical mapping and historical aerial imagery pertinent to the site is summarised in Table 3.1. In addition, historical site features are presented on Drawing 17-206-003 in Appendix IV.

TABLE 3.1 HISTORICAL DEVELOPMENT

MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1848 1:10,560	A pond/reservoir appears to be located across the majority of the site, likely associated with the Myrtle Grove Dye Works to the south of the site.	

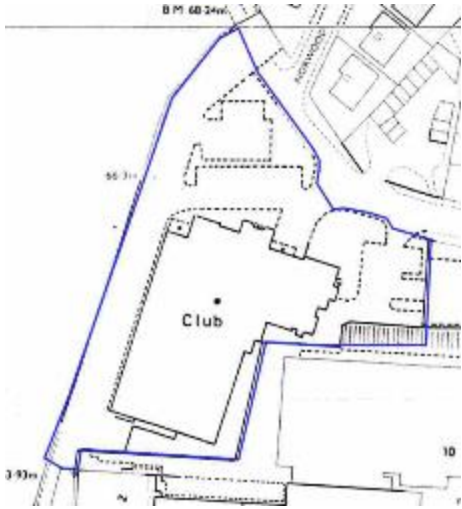


MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1893 1:2,500	Reservoirs are recorded in the south of the site. A rectangular structure is present in the northern sector. Tracks are present in the north and east of the site.	
1932 1:2,500	The reservoir furthest north is no longer recorded. A Bowling Green is recorded in the centre of the site with a small Pavilion. Small tanks are recorded at the southern site boundary associated with the adjacent Bleach and Dye Works.	



MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1952 1:1,250	The buildings in the north of the site are no longer present. A footpath is recorded to the north of the Bowling Green.	
1973 1:1,250	The reservoir in the south appears to have been infilled. A Pavilion is now present to the west of the Bowling Green, rather than to the north. An area of ground workings/land raising is present in the southeast.	



MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1988 1:1,250	The reservoir in the south has been infilled. The Bowling Green is no longer present and a Club building has been constructed across the majority of the site.	
2003 1:1,250	The Club building is now recorded as the Village Hotel.	



MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
2019 Aerial Photograph	There are no significant changes. The area to the north of the hotel is utilised as a car park.	



3.1.1. SUMMARY OF ON-SITE HISTORICAL DEVELOPMENT

The following summary points have been highlighted after a detailed review of the historical mapping series.

POTENTIAL HISTORICAL CONTAMINATION ISSUES

- ☛ Made Ground associated with infilled ground (including ponds/ reservoirs), demolition and construction activities may contain contaminants.
- ☛ The former tanks at the southern boundary associated with the historical bleach and dye works are a potential source of contamination.

POTENTIAL HISTORICAL GEOTECHNICAL ISSUES

- ☛ Organic deposits may be present in the location of infilled ponds and reservoirs.
- ☛ Obstructions will be present beneath the existing building.

3.2. OFF-SITE HISTORICAL DEVELOPMENT

A review of potentially contaminative uses identified on historical Ordnance Survey maps within a 150 m radius of the site is summarised in Table 3.2.

TABLE 3.2 SURROUNDING HISTORICAL DEVELOPMENT

SURROUNDING FEATURE	DISTANCE	DATES	DIRECTION
Myrtle Grove Bleach & Dye Works ...then Mountheath Industrial Park ...then no longer recorded	0 m	Pre 1848 – Pre 1984 Pre 1984 – Pre 2020 Pre 2020 – Present	South
Tanks ...then no longer recorded	0 m	Pre 1909 – Pre 1970 Pre 1970 – Present	South
Tanks ...then no longer recorded	75 – 100 m	Pre 1970 – Pre 1984 Pre 1984 – Present	South
Electricity Substation ...then no longer recorded	80 m	Pre 1984 – Pre 2020 Pre 2020 – Present	East
Tanks ...then no longer recorded	90 m	Pre 1970 – Pre 1984 Pre 1984 – Present	East
Reservoirs ...then no longer recorded	80 – 150 m	Pre 1893 – Pre 1984 Pre 1984 – Present	East
Sand Pit ...then no longer recorded	100 m	Pre 1907 – Pre 1922 Pre 1915 – Present	North East
Filter Tanks/Beds ...then no longer recorded	120 m	Pre 1909 – Pre 1984 Pre 1984 – Present	South



3.3. PLANNING HISTORY

E3P has undertaken a review of the Bury Council planning website and the following pertinent information has been identified.

- ✿ Planning ref (59705) confirms that Units 1-4 at the former Sedgley Park Trading Estate (adjacent to the south of the site) were reconstructed due to fire damage.

3.4. PREVIOUS REPORTS

No previous reports have been provided for the subject site area.

E3P previously completed the ground investigation and remediation validation works on the adjacent Bellway Homes land parcel. The pertinent E3P reports are listed below, and the reports are available on the public planning portal:

- ✿ **E3P** – E3P Phase I & II Geo-Environmental Report (ref:12-197-R1-Rev 1) dated November 2018, Prepared for Bellway Homes
- ✿ **E3P** – E3P Tier II DQRA Controlled Waters Risk Assessment (ref:12-197-R2-Rev 5) dated July 2020, Prepared for Bellway Homes
- ✿ **E3P** – E3P Remediation and Enabling Works Strategy (ref:12-197-R3-Rev 6) dated August 2020, Prepared for: Bellway Homes
- ✿ **E3P** – E3P Remediation Validation Report (ref:12-197-R6-3) dated September 2020, Prepared for: Bellway Homes

A summary of the pertinent information from the above reports is included below:

Ground Conditions

- ✿ Made Ground was encountered in all exploratory hole locations to depths of between 0.10 m and 5.00 m bgl.
- ✿ Concrete obstructions were prevalent in the southern sector of the site.
- ✿ A sweet odour indicative of TCE/PCE was observed in TP104 at 1.90 m bgl.
- ✿ Drift deposits were encountered to a maximum depth in excess of 15.00 m bgl and generally comprised light orange brown fine to medium SAND over firm becoming very stiff brown slightly gravelly CLAY.
- ✿ Historical (~1850) borehole records for the site suggest that sandstone bedrock is present at ~25.0m bgl. A deep E3P borehole identified red weathered SANDSTONE was identified at 26.50 m bgl.
- ✿ Occasional groundwater seepages were identified between 1.00 m bgl – 6.00 m bgl, no definitive saturated aquifer was identified.



Contaminated Land Assessment

- ✚ Chemical Analysis confirmed the presence of elevated inorganic heavy metals, PAH, non-volatile TPH and Asbestos within the anthropogenic soils.
- ✚ Concentrations of chlorinated volatile organic compounds above the limit of detection were identified throughout the western sector. Elevated concentrations of PCE and TCE were identified in WS103.
- ✚ A vapour assessment indicated that vapour concentrations would not exceed the tolerable daily limits, therefore subject to the delineation and removal of PCE and TCE as isolated 'hotspots' exceeding the Tier 2 GAC, the residual impact to soil and groundwater would not present an unacceptable degree of risk to chronic human health.
- ✚ Deeper boreholes identified impermeable clay from circa 5.00 m to in excess of 15.00 m bgl underlying the Made Ground and overlying granular drift deposits, offering protection to the underlying Principal Aquifer.
- ✚ The groundwater sampling identified exceedances of PCE and VOC's above the limit of detection.
- ✚ The upstream sample of the culvert did not identify any VOC's, whereas the downstream sample identified exceedances of PCE, indicating that the site was having an effect on the culvert water quality.
- ✚ A review of the hydrological information from the Ground Investigation identified a groundwater body which appeared to flow in a southerly direction to a topographic low point where Singleton Brook flows in a culvert.
- ✚ Given that a complete pollutant linkage was identified associated with impact to Singleton Brook (flowing in a culvert across the site) in conjunction with proven impact within the Secondary Aquifer (superficial drift deposits), a process of remediation works was required to ensure no significant risk to controlled waters or the wider environs remains post site development.
- ✚ A Detailed Quantitative Risk Assessment Model was developed utilising the EA Remedial Targets Methodology (RTM P20) to define the site specific remediation criteria for soil.

Remediation/Validation Works

- ✚ Prior to the commencement of the remediation works in the south west sector, a single deep borehole was installed to the underlying aquifer (50 m) to confirm the absence of any vertical migration of chlorinated solvent impact through the clay aquitard to this receptor. Groundwater sampling did not identify any impact to the principal aquifer.
- ✚ The historical BGS boreholes mapped on site were not located and it is assumed that these have been historically abandoned, and therefore no conduit for pollution migration remains.
- ✚ A deep well was identified which was decommissioned in accordance with EA guidance.
- ✚ Surface water samples were collected throughout the remediation works. Given the initial concentrations of VOCs downstream are similar to those identified during the remediation works, no unacceptable risk was identified.



- ✚ Previously defined hotspots for volatile contaminants were delineated and excavated. The excavated soils were either re-used in an area of low sensitivity or removed from site.
- ✚ The historical mapping from 1909 records a small tank adjacent to the southern site boundary. E3P completed soil sampling in this location and no contamination was identified.
- ✚ A large pipe was identified which was considered to be the main source of chlorinated solvent impact. The pipe was excavated with validation sampling completed along the base and sides of the pipe route.
- ✚ The old culvert was excavated and removed and Singleton Brook was realigned to the south of the site.
- ✚ Japanese Knotweed was identified in the south east of the site. The knotweed was excavated and removed under the supervision of a knotweed specialist.
- ✚ No organic material or geotechnically unsuitable material was identified in any of the trial pit excavations in the location of the former reservoirs.
- ✚ No landfill material was identified in the eastern sector.
- ✚ The asbestos within the buildings was removed by specialists and personal and reassurance air testing was completed.
- ✚ Asbestos impacted soils were placed in accordance with the asbestos CSM. Visible ACM was removed from site.
- ✚ The substation located in the west of the site was decommissioned and disposed of at a licensed facility.
- ✚ The majority of plots were prepared for vibro stone columns.
- ✚ A site wide cover system was constructed utilising certified sub-soil and topsoil.
- ✚ Vapour membranes were required for specific plots due to residual contamination, however vapour membranes were not required for plots adjacent to the subject site boundary.
- ✚ The ground gas classification was a combination of Characteristic Situation 1 and Characteristic Situation 2.
- ✚ Basic radon protective measures were required, however the revised UK radon map suggests the site is unaffected by radon.



4. ENVIRONMENTAL SETTING

4.1. GEOLOGY AND HYDROGEOLOGY

The British Geological Survey (BGS) map for the site, (Sheet 85) and online records indicate the site is underlain by the geological sequence presented in Table 4.1.

TABLE 4.1 SUMMARY OF UNDERLYING GEOLOGY

GEOLOGICAL UNIT	CLASSIFICATION	DESCRIPTION	AQUIFER CLASSIFICATION
Drift	Hummocky (moundy) Glacial Deposits	SAND and GRAVEL	Secondary A Aquifer
Solid	Chester Sandstone Formation (northern sector)	SANDSTONE	Principal Aquifer Secondary A Aquifer (southwest)
	Pennine Upper Coal Measures Formation (southern sector)	MUDSTONE, SILTSTONE, SANDSTONE	
	Collyhurst Sandstone Formation (southwest sector)	SANDSTONE	

E3P has reviewed the BGS database, which identified boreholes in close proximity, from which to compare the published geology above.

The borehole logs are summarised in Table 4.2.

TABLE 4.2 SUMMARY OF BGS BOREHOLE RECORDS

LOCATION	DEPTH	MADE GROUND	DRIFT	SOLID
5m S (ref: SD80SW14)	148.74 m	0.00–3.66 m	SAND and CLAY 3.66–24.84 m	SANDSTONE and MARL 24.84–75.44 m SHAPE, SANDSTONE and MARL 75.44 – 148.74 m
41 m SW (ref: SD80SW16)	83.36 m	Soil 0.00 – 0.30 m	SAND and GRAVEL, MARL Drift 0.30 – 21.79 m	MARL 21.79 – 34.75 m Red Rock 34.75 – 83.36 m
64 m S (ref: SD80SW15)	83.67	Soil 0.00 – 0.30 m	GRAVEL, MARL Drift 0.30 – 28.04 m	Red Rock 28.04 – 83.67 m

The BGS mapping also identifies the location of faults, as presented in Table 4.3.

TABLE 4.3 SUMMARY OF FAULTS

LOCATION	DEPTH
On site	Normal fault, inferred, trending NW to SE, downthrow to the northeast.



4.2. HYDROGEOLOGY

The Groundsure report indicates that the site is not located within a groundwater source protection zone. Furthermore, there are no potable abstractions within 1km of the site.

The closest groundwater abstraction is located 222 m southwest for spray irrigation at Prestwich Golf Club. There are no further groundwater abstractions within 1km.

4.3. NATURAL LANDFORM AND GEOMORPHOLOGY

Based on the initial geological assessment, a review of available topographic data and pertinent mapping, E3P has undertaken a preliminary geomorphological evaluation of the landform and its possible mechanism for formation.

It would appear that the placement and upfilling of material will have formed the current site level plateau before the construction of the existing building.

FIGURE 4.1 SURFACE LIDAR DATA (HOUSEPRICES.IO)



4.4. RADON RISK POTENTIAL

The Groundsure report indicates that the site is situated in an area where less than 1% of homes are above the "Action Level" and that the BGS reports that full protective measures are not necessary for the construction of new dwellings or extensions.



4.5. HYDROLOGY

Surface water features within 250 m of the subject site are summarised in Table 4.4 below.

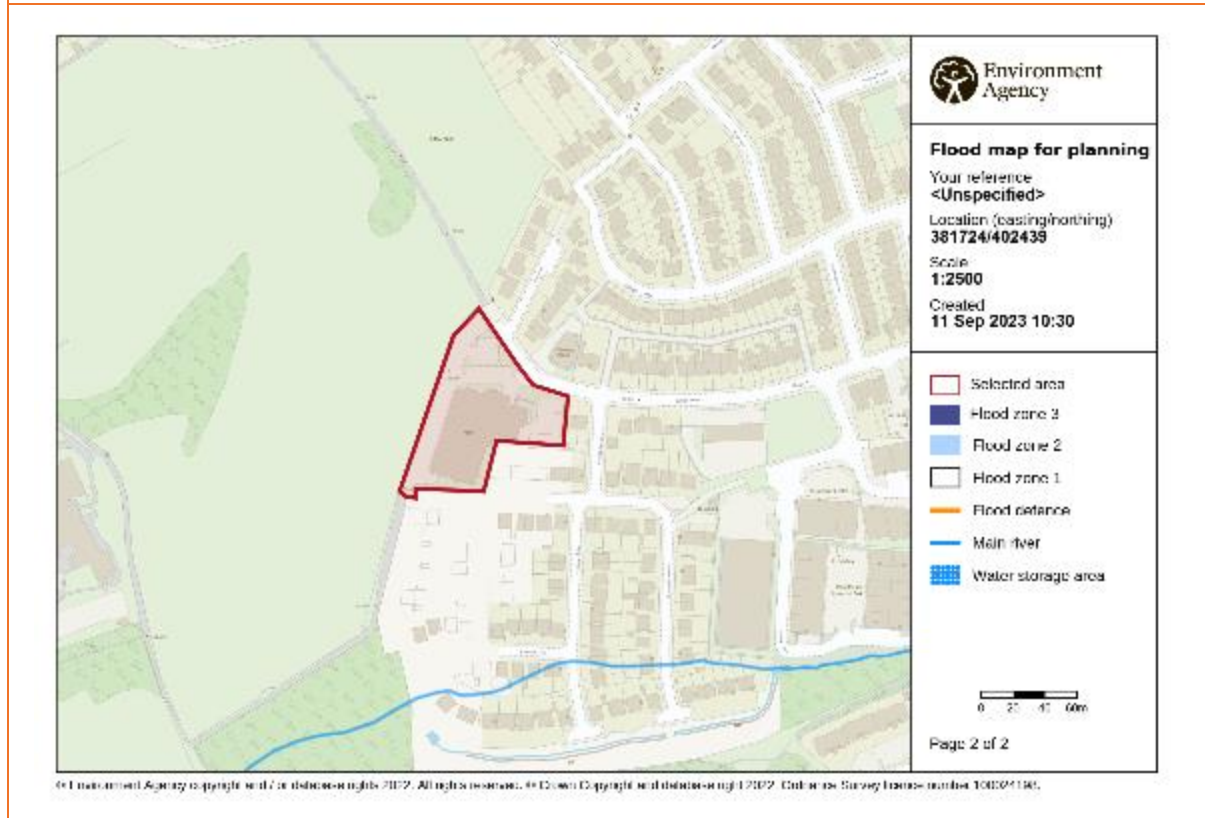
TABLE 4.4 SURFACE WATER FEATURES

SURFACE WATER FEATURE	QUALITY	DISTANCE (m)	DIRECTION
Singleton Brook	Unknown	151	South

The site is predominantly located within a currently defined area deemed as not being at risk from river, coastal or surface water flooding. The site is defined as having a moderate risk of groundwater flooding.

The Fluvial Flood Risk Map is presented in Figure 4.2.

FIGURE 4.2 FLUVIAL FLOOD RISK MAP



Source – <https://flood-map-for-planning.service.gov.uk/>

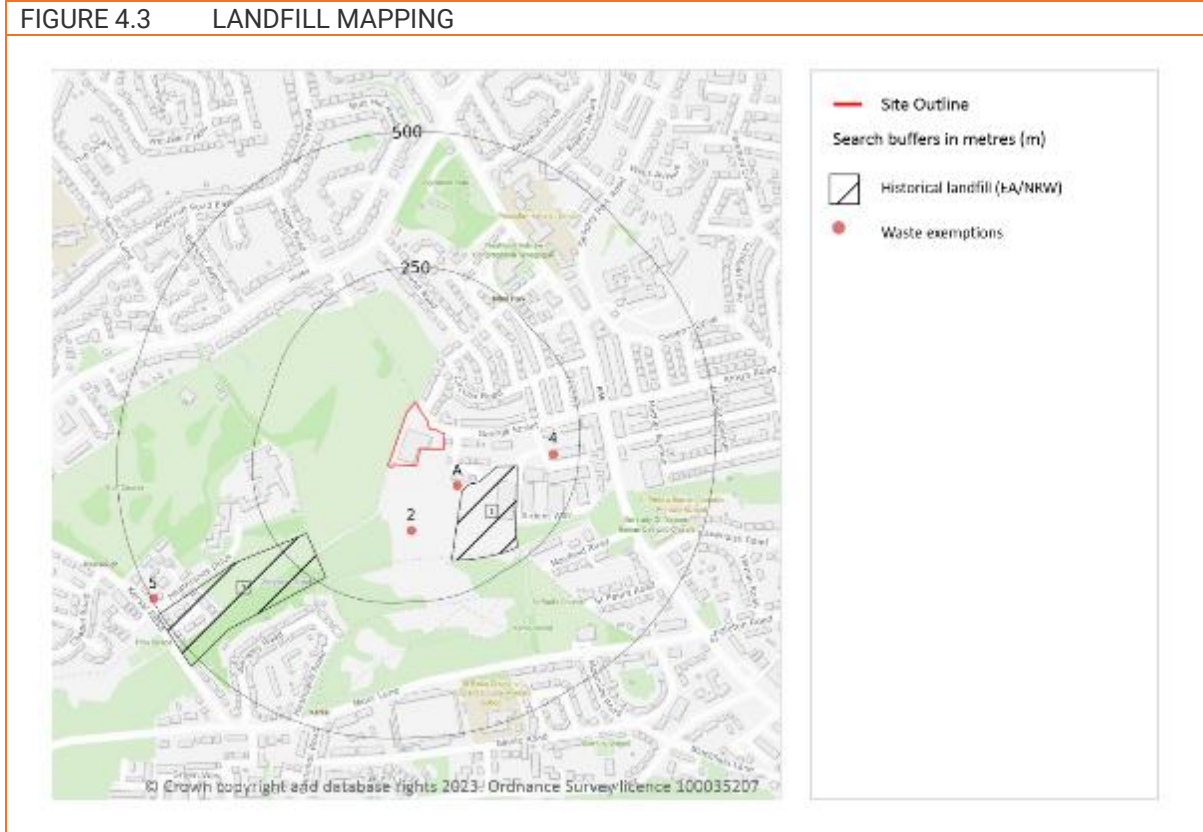
4.6. LANDFILL SITES AND WASTE TREATMENT SITES

Two historical landfill sites are located within 250 m. The closest is located 80 m southeast at the former Mountheath Industrial Park, however the site has now been remediated to form the Bellway Homes development. The landfill received waste from 1979 to 1980, the material is recorded as originating from general construction works and is not domestic refuse.

A historical landfill is also recorded 195 m southwest at Heathlands Drive. No further details are available.

A screenshot of the mapping showing landfill locations within 250 m radius of the site is included in Figure 4.3.

FIGURE 4.3 LANDFILL MAPPING



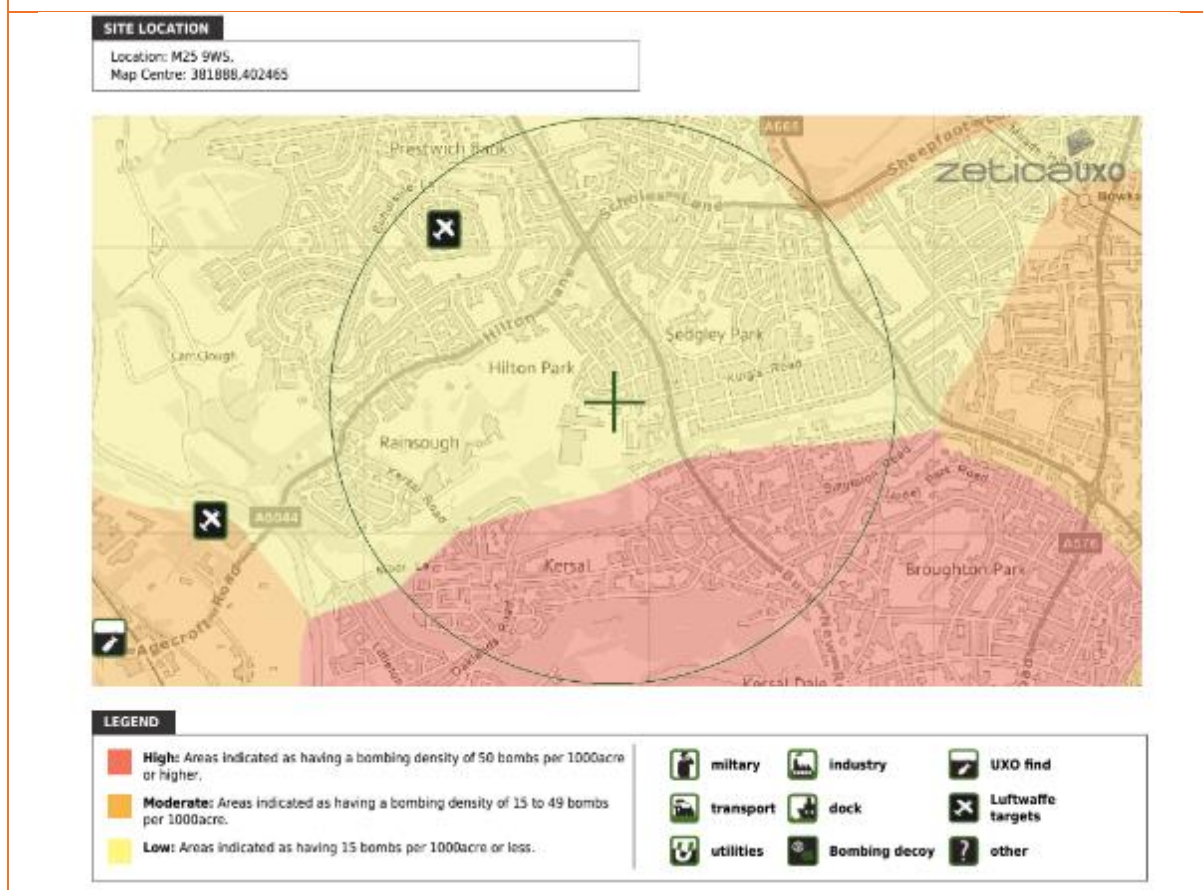
4.6.1. WASTE MANAGEMENT LICENSES & ENVIRONMENTAL PERMITS

There are three waste exemptions registered within 250 m. Two of these are associated with the adjacent Bellway Homes development site for use of waste in construction and treating waste. A waste exemption is also registered to Howden Joinery located 202 m east for storing waste.

4.7. UNEXPLODED ORDNANCE

The regional unexploded bomb risk map from Zetica (2014) indicates that the Site is in an area at low risk from possible unexploded ordnance (UXO) resulting from the Second World War. The Zetica UXO Risk Map is presented in Figure 4.4.

FIGURE 4.4 ZETICA UXO RISK MAP



Source – <https://zeticauxo.com/downloads-and-resources/risk-maps/>

4.8. INDUSTRIAL LAND USES

There are 14No. recent industrial land uses recorded within 250 m of the site boundary, however a number of these relate to the former Mountheath Industrial Estate to the south of the site, which is now the Bellway Homes development.

4.9. SITE SENSITIVITY ASSESSMENT

The site is assessed to be located within a “Moderate” sensitivity setting as discussed within Table 4.5 overleaf.



TABLE 4.5 SITE SENSITIVITY ASSESSMENT

SENSITIVITY PROFILE	DISCUSSION	RATING
Groundwater Source Protection Zone or Drinking Water Safeguard Zone	None identified.	Low
Distance to the Closest Groundwater Abstraction Point	The closest groundwater abstraction is located 222 m southwest for spray irrigation at Prestwich Golf Club. There are no further groundwater abstractions within 1 km.	Moderate
Aquifer Classification in Superficial Drift Deposits	Secondary A Aquifer	Moderate
Aquifer Classification in Bedrock	Principal Aquifer and Secondary A Aquifer	High
Is the Site Underlain by Low-Permeability Drift to Depths in Excess of 10 m?	Drift strata is likely to comprise sand and clay to depths in excess of 15.00 m bgl.	Moderate
Is the Site Located Within 50 m of a Surface Watercourse?	No surface water features are located within 50 m of the site boundary.	Low
Sensitive Land Uses Within Close Proximity (e.g. Residential, School, Nursery, Local Nature Reserves)	The closest residential properties are located adjacent to the east and south of the site. The site is located within a Nitrate Vulnerable Zone and SSSI Impact Risk Zone.	High
OVERALL SITE ENVIRONMENTAL SENSITIVITY		Moderate

4.10. REGULATORY DATABASE

The information summarised in Table 4.6 has been obtained from a commercially available environmental database. The summary table only includes records from within 250 m of the subject site and not otherwise detailed in the report.



TABLE 4.6 SUMMARY OF ENVIRONMENTAL DATA

RECORD	ENTRIES WITHIN 250 m	DETAILS
Contaminated Land Register Entries and Notices	0	None Identified.
Authorised Industrial Processes (IPC/IPPC/LAPPC)	0	None Identified.
Fuel Stations Entries	0	None Identified.
Licensed Radioactive Substances	0	None Identified.
Enforcements, Prohibitions or Prosecutions	0	None Identified.
Discharge Consents	0	None identified.
Pollution Incidents	0	None Identified.
Consents Issued Under the Planning (Hazardous Substances) Act 1990	0	None Identified.
Control of Major Accident Hazard (COMAH) Sites	0	None Identified.

4.11. REGULATORY CONSULTATIONS

E3P contacted the Environmental Health Department at Bury Council and a response is awaited.



5. PRELIMINARY GEOTECHNICAL ASSESSMENT

5.1. GEOTECHNICAL DATA

Geotechnical data presented within a commercially available environmental database is summarised in Table 5.1.

TABLE 5.1 SUMMARY OF GEOTECHNICAL DATA

HAZARD	DESIGNATION
Shrink-Swell Clay	No hazard
Landslides	Very low risk
Ground Dissolution	No hazard
Compressible Ground	No hazard
Collapseable Deposits	Very low risk
Running Sand	Very low risk

5.2. PRELIMINARY GEOTECHNICAL ASSESSMENT

Based on the desk-study information, the following geotechnical assessment has been made:

- ✳ It is likely there will be significant Made Ground fill deposits and obstructions. The existing building will require demolition, with all relict foundations grubbing out before the proposed development's construction.
- ✳ Several historically infilled ponds and reservoirs are present within the site boundary, which are potential sources of alluvial deposits, silts and possible organic peat deposits, and potential depths of Made Ground. An investigation will be required to assess these and undertake in-situ geotechnical testing to determine the potential foundation solution for plots in these areas.

5.3. COAL MINING

The site is not located within a Coal Authority deemed High-Risk Development Area. There are no outcrops or mine shaft entries in close proximity. No further assessment is required in relation to coal mining.



5.4. PRELIMINARY GEOTECHNICAL RISK REGISTER

POTENTIAL CONSTRAINT	ABNORMAL	LOCATION ON SITE	ESTIMATED AREA OF SITE AT RISK (%)	ASSESSMENT AND MITIGATION
Remediation of contaminated soils		All	TBC	Ground investigation is required to confirm.
Bedrock		All	N/A	BGS boreholes suggest that bedrock will be present at depths of >20.00 m bgl.
Obstructions		All	60	Obstructions will be present beneath the existing building.
Artificially levelled and filled platforms		All	100	The site appears to have been artificially infilled.
Retaining walls		N/A	N/A	No retaining walls are present.
Trench collapse		All	TBC	Excavations may be unstable in deep Made Ground or granular soils.
Infilled ponds/reservoirs		All	TBC	Investigation will be required to confirm the extent of any organic deposits.
Mature trees		All	TBC	Sporadic trees are present on site. Dense vegetation is present along the western site boundary. An aboricultural survey is likely to be required.
Volume change potential clay		All	TBC	If clay soils are present an assessment will be required.
Peat		TBC	TBC	Peat is unlikely to be present and is not mapped on Site.
Running sands		N/A	N/A	Very low risk identified.
Ground dissolution		N/A	N/A	No hazard identified.
Concrete design		TBC	TBC	Ground investigation required to confirm.
Low-permeability ground		TBC	TBC	Soakaways may not be possible where low permeability cohesive drift deposits are present.
Services/sensitive structures		All	TBC	A number of services are present within the site boundary.
Abnormal foundation solutions		TBC	TBC	Ground investigation required to confirm. Abnormal foundations may be required where deep Made Ground, soft clays or loose sands are identified.



6. INITIAL CONCEPTUAL SITE MODEL

Under EA LCRM (July 2023) and BSI 10175 (Code of Practice for Investigation of Potentially Contaminated Land), and BS EN ISO 21365:2021 (Soil Quality – Conceptual models for potentially contaminated sites), E3P has developed a Tier 1 Risk Assessment comprising an initial conceptual site model (CSM) to identify potential contamination sources, migration pathways and receptors within the study area. An initial screening of the on and potential off-site sources of contamination has been undertaken in Table 6.1, with the more detailed initial CSM included overleaf as Table 6.2.

TABLE 6.1 INITIAL CONTAMINANT SOURCE SCREENING

SOURCE	SOIL	GROUNDWATER	GROUND GAS
ON-SITE			
Made Ground (Infilled Ponds/Reservoirs, Construction, Demolition)	Polycyclic Aromatic Hydrocarbons (PAHs), Heavy Metals, Total Petroleum Hydrocarbons (TPH), Asbestos	Unlikely	Carbon dioxide & methane
OFF-SITE			
Above Ground Storage Tanks (low risk as the land has been remediated)	PAHs, TPHs, SVOCs, VOCs	PAHs, TPHs, SVOCs, VOCs	Volatile vapours
Bleach and Dye Works (low risk as the land has been remediated)	Polycyclic Aromatic Hydrocarbons (PAHs), Heavy Metals, Total Petroleum Hydrocarbons (TPH), Asbestos, SVOCs, VOCs	Heavy Metals, PAHs, TPHs, SVOCs, VOCs	Volatile vapours
Historical Landfill Sites	Unlikely	Unlikely	Carbon dioxide & methane – limited due to distance
Infilled Sand Pit	Unlikely	Unlikely	Carbon dioxide & methane – limited due to distance



6.1. INITIAL CONCEPTUAL SITE MODEL

Upon assessment of the information collated for the Phase 1 desk study, the initial conceptual site model shown in Table 6.2 has been prepared for the Site.

TABLE 6.2 INITIAL CONCEPTUAL MODEL

CONTAMINANT LINKAGE			PLAUSIBLE LINKAGE?	COMMENTARY AND PROPOSED RESPONSE
SOURCES	MIGRATION PATHWAYS	RECEPTORS		
SOIL				
Made Ground, Infilled Ponds/Reservoirs Heavy Metals, PAH, Heavy end TPH	Accidental ingestion and/or dermal contact with contaminated soil and/or leachate. PL1/PL2	Human Health – site personnel	Yes	Made Ground is a potential source of heavy metals, PAHs and TPH. Site personnel have a greater chance of coming into contact with contaminated soils. Particularly during excavation and soil recovery works. Recommendation: Construction works to be completed with appropriate PPE and welfare facilities.
	Inhalation of contaminated dust. PL3	Human Health – end users	Yes	Hard-standing and engineered clean cover system shall likely break migration pathways to end users. Recommendation: Intrusive investigation and assessment will determine the requirement for a cover system in all soft landscaped areas.
Historical Tanks (southern boundary) VOCs, SVOCs, hydrocarbons, volatile PAHs (naphthalene)	Inhalation of vapours. PL4	Human Health – end users	Yes	Made Ground is a potential source of hydrocarbon compounds and volatile PAHs.
	Migration through permeable strata and preferential pathways.	Human Health – Off-site receptors	No	The former tanks located at the southern site boundary are a potential source of PAHs, TPHs, SVOCs and VOCs. However, investigation completed as part of the E3P works on the adjacent site did not identify any evidence of contamination in the location of the historical tanks. Recommendation: Intrusive investigation and assessment will be required to determine the level of mitigation measures and/or remediation.



CONTAMINANT LINKAGE			PLAUSIBLE LINKAGE?	COMMENTARY AND PROPOSED RESPONSE
SOURCES	MIGRATION PATHWAYS	RECEPTORS		
Made Ground Asbestos (Asbestos containing materials (ACM) and loose fibres)	Inhalation (of fibres). Construction works disturbing bound material and releasing fibres. PL3	Human Health - Site personnel, end land users, and users of adjacent sites	Yes	Risk of inhalation of fibres during Ground Investigation and construction works. Disturbance of ACMs and dust derivatives from construction would increase risk to adjacent sites. Recommendation: Intrusive investigation will be required to determine presence of ACMs and develop appropriate mitigation measures. Construction works to be completed with appropriate PPE and welfare facilities.
Made Ground Sulphate from potential ash within the Made Ground.	Sulphate attack on concrete. PL6	Building concrete	Yes	Sulphate in ash deposits (associated with Made Ground) may impact the proposed building concrete. Recommendation: Intrusive investigation will be required to assess the concrete classification. Construction works to be completed with appropriate PPE and welfare facilities.
Made Ground Organic contaminants such as hydrocarbons, solvents	Ingestion of tainted water supply. PL7	Human Health – End Users Water pipeline	Yes	Made Ground may contain organic contaminants such as hydrocarbons which pose a risk to future site users through the ingestion of tainted water supply. The risk is considered to be low. Recommendation: Intrusive investigation required.
Made Ground Phytotoxic contaminants	Direct contact (plant uptake). PL8	Flora	Yes	Contamination is considered possible in areas of Made Ground, which may be taken up by flora in soft landscaping/gardens. Recommendation: Intrusive investigation required.



CONTAMINANT LINKAGE			PLAUSIBLE LINKAGE?	COMMENTARY AND PROPOSED RESPONSE
SOURCES	MIGRATION PATHWAYS	RECEPTORS		
CONTROLLED WATERS				
Mobile Contaminants	Leaching of contaminants from Made Ground through infiltration and percolation of rainwater. PL5	Controlled waters, underlying Secondary aquifer A	Yes (limited)	The former bleach and dye works historically located to the south of the site is a potential source of mobile contamination. The site has been remediated, therefore no residual impact is anticipated. Granular soils may provide a potential pathway, however cohesive drift deposits will inhibit migration towards the underlying aquifers. The sensitivity of the aquifers is reduced, given there are no potable abstractions within 1km. Recommendation: Intrusive investigation with chemical analysis of soil and groundwater samples is recommended to assess the presence of mobile contaminants and facilitate further risk assessment.
		Infrastructure and services	Yes (limited)	The development of the proposed infrastructure will reduce the leachate produced from contaminated soils. Infrastructure and services shall be designed to resist chemical attack and ingress.
Groundwater	Contact with contaminated groundwater. PL2	Human Health – site personnel	No	Groundwater is known to be below construction level and as such, is expected to not rise above ground level or the final level of the road.
	Contaminants leached from the Made Ground and from off-site sources may be mobilised to greater distances through advective flow. PL5	Human Health – end users	No	Impacted groundwater could transport contaminants vertically and horizontally through permeable strata. However, the site works will not exacerbate this, and site work will be undertaken above the water table. Groundwater will need to be considered for surrounding developments.



CONTAMINANT LINKAGE			PLAUSIBLE LINKAGE?	COMMENTARY AND PROPOSED RESPONSE
SOURCES	MIGRATION PATHWAYS	RECEPTORS		
GROUND GAS				
Ground gases (methane and carbon dioxide associated with Made Ground, infilled ponds/reservoirs)	Inhalation of ground gas. PL4	Human Health – site personnel	Yes (limited)	During excavation work, removal of confining strata may expose workers to volumes of pocketed gas. Recommendation Protective measures during the works required including appropriate PPE/ RPE.
	Accumulation of ground gas in confined spaces (asphyxiation or explosion)	Human Health – end users	Yes	Ground Investigation including gas monitoring is required to confirm the ground gas classification.
		Infrastructure and services	No	Service conduits will likely be designed with passive venting systems.

Main exposure pathways:

PL1 = soil ingestion, PL2 = dermal contact and ingestion, PL3 = dust inhalation; PL4 = Vapour/Gas Inhalation; PL5 = Vertical / Lateral Migration; PL6 = Corrosion of concrete; PL7=Tainting of water supply; PL8 = Uptake by plants.



7. CONCLUSIONS

7.1. SITE SUMMARY

Current Site Use	The site comprises an irregular shaped parcel of land located to the south of George Street in Prestwich. The recently constructed Bellway Homes development site is located adjacent to the east and south. Fairways Lodge (hotel and leisure club) covers the majority of the site, with hardstanding car parking areas in the north and east of the site. Mature trees are present along the northern and western site boundaries, with additional sporadic trees and areas of soft standing. Himalayan Balsam was noted in the southeast sector.
Historical Site Use	Historical mapping from 1848 suggests that pond/reservoirs were present on site, likely associated with the adjacent Bleach and Dye Works to the south. The reservoir furthest north was no longer recorded by 1932 and a Bowling Green was installed in the centre of the site with a small Pavilion. The reservoir in the south appears to have been infilled by 1973. The current building was constructed by 1988, recorded as a Club. The building was later noted to be the Village Hotel. No significant changes have occurred since circa 1988.

7.2. CONTAMINATED LAND ASSESSMENT

Human Health	Made Ground associated with the infilled ponds/reservoirs and construction and demolition activities may contain heavy metals, PAHs, TPHs and ACM. The former tanks located at the southern site boundary are a potential source of PAHs, TPHs, SVOCs and VOCs. However, investigation completed as part of the E3P works on the adjacent site did not identify any evidence of contamination in the location of the historical tanks. The former bleach and dye works to the south of the site has been remediated, therefore no residual impact is anticipated.
Controlled Waters	The former bleach and dye works historically located to the south of the site is a potential source of mobile contamination, however the site has been remediated and no impact was identified in the deep borehole drilled into the bedrock aquifer. Granular soils may provide a potential pathway, however cohesive drift deposits will inhibit migration towards the underlying aquifers. The sensitivity of the aquifers is reduced, given there are no potable abstractions within 1km. Intrusive investigation with chemical analysis of soil and groundwater samples is recommended to assess the presence of mobile contaminants and facilitate further risk assessment.



Ground Gas	Made Ground and potential organic deposits may produce hazardous ground gases such as carbon dioxide and methane which have associated asphyxiation and explosive risks. An appropriate ground gas risk assessment will be required as part of the ground investigation works to assess this risk.
Potable Water	Elevated hydrocarbon concentrations may be present in localised areas beneath the site. An intrusive investigation is required to confirm requirements for the proposed water supply.

7.3. GEOTECHNICAL ASSESSMENT

Geological	Several historically infilled ponds and reservoirs are present within the site boundary, which are potential sources of alluvial deposits, silts and possible organic peat deposits, and potential depths of Made Ground. An investigation will be required to assess these and undertake in-situ geotechnical testing to determine the potential foundation solution for plots in these areas.
Civil and Structural	Significant cut and fill works are not anticipated. It is likely there will be significant Made Ground fill deposits and obstructions. The existing building will require demolition, with all relict foundations grubbing out before the proposed development's construction.
Abnormal Foundations	Foundations will be dependent on proposed ground levels. An abnormal engineering solution may be required where there is significant thickness of Made Ground, tree influence, loose granular soils or soft cohesive deposits.

END OF REPORT



APPENDIX I

LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between E3P and the client as indicated in Section 1.2.
2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information, it has been assumed it is correct. No attempt has been made to verify the information.
3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination which are enforced by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
4. During the site walkover, reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover, no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials, this is for indicative purposes only and do not constitute or replace full and proper surveys.
8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
9. E3P cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by E3P is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by E3P in this connection without their explicit written agreement there to by E3P.
10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.



APPENDIX II

GLOSSARY

TERMS

ACM	Asbestos-containing material	MMP	Materials management plan
ADS	Acoustic design statement	ND	Not detected
AST	Above-ground storage tank	NDP	Nuclear density probe
BGS	British Geological Survey	NMP	Noise management plan
BSI	British Standards Institute	NPSE	Noise policy statement for England
BTEX	Benzene, toluene, ethylbenzene, xylenes	NR	Not recorded
CA	Coal Authority	PAH	Polycyclic aromatic hydrocarbon
CBR	California bearing ratio	PCB	Polychlorinated biphenyl
CIEH	Chartered Institute of Environmental Health	PI	Plasticity index
CIRIA	Construction Industry Research Association	PID	Photo ionisation detector
CLEA	Contaminated land exposure assessment	POS	Public open space
CML	Council of Mortgage Lenders	PPE	Personnel protective equipment
CoC	Contaminants of concern	ProPG	Professional practice guidance
CSM	Conceptual site model	QA	Quality assurance
DNAPL	Dense non-aqueous phase liquid (chlorinated solvents, PCB)	SGV	Soil guideline value
DWS	Drinking water standard	SPH	Separate-phase hydrocarbon
EA	Environment Agency	SPT	Standard penetration test
EQS	Environmental quality standard	SVOC	Semi-volatile organic compound
FFL	Finished floor level	TPH	Total and speciated petroleum hydrocarbon
GAC	General assessment criteria	TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group)
GL	Ground level	UKWIR	United Kingdom Water Infrastructure Risk
GSV	Gas screening value	UST	Underground storage tank
HCV	Health criteria value	VCC	Vibro-concrete column
ICSM	Initial conceptual site model	VOC	Volatile organic compound
LEL	Lower explosive limit	VRSC	Vibro-replacement stone columns
LMRL	Lower method reporting limit	VSC	Vibro-stone columns
LNAPL	Light non-aqueous phase liquid (petrol, diesel, kerosene)	WHO	World Health Organisation
MCV	Moisture condition value	WRAP	Waste and Resources Action Programme



MIBK	Methyl isobutyl ketone	WTE	Water table elevation
m	Metres	ppm	Parts per million
km	Kilometres	mg/m³	Milligram per metre cubed
% v/v	Percent volume in air	m bgl	Metres below ground level
mb	Millibars (atmospheric pressure)	m bcl	Metre below cover level
l/hr	Litres per hour	mAOD	Metres above ordnance datum (sea level)
µg/l	Micrograms per litre (parts per billion)	kN/m²	Kilonewtons per metre squared
ppb	Parts per billion	µm	Micrometre
mg/kg	Milligrams per kilogram (parts per million)		



APPENDIX III

RISK CLASSIFICATION

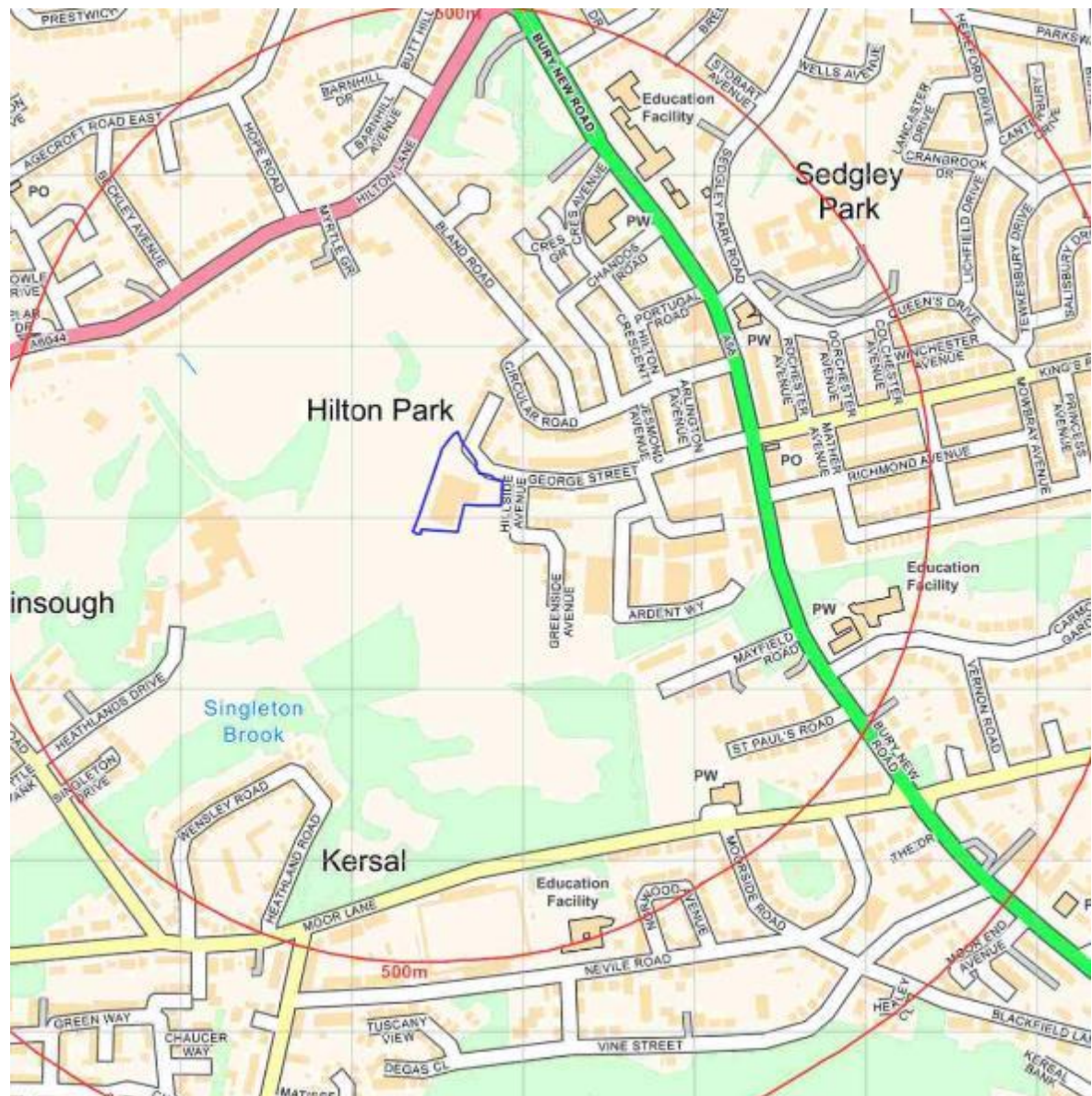
RISK CLASSIFICATION

RISK	DEFINITION
Low	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property.
Low Moderate	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property with regard to the proposed use. However, minor issues may require further consideration in the event of future redevelopment of the Site.
Moderate	Some potential contaminated land liabilities/geotechnical constraints are likely to affect the property as a result of historical and/or current activities. The risks identified are unlikely to pose an immediate significant issue but the purchaser/developer may wish to make further enquiries of the vendor or undertake further environmental improvements. Redevelopment of the Site will likely require further site investigation.
Moderate High	Some potentially significant contaminated land liabilities/geotechnical constraints have been identified at the property that requires further assessment, including intrusive ground investigations.
High	Significant potential contaminated land liabilities/geotechnical constraints have been identified at the property. Further assessment including intrusive ground investigation will be required to determine the level of risk and associated liability.



APPENDIX IV DRAWINGS

DRAWING 17-206-001 – SITE LOCATION PLAN





Notes:					
P1	REVA	18.09.2023	EB	NS	NS
Phase	Issue	Date	Drawn	Checked	PM

Client:	McCarthy & Stone
Job Title:	Fairways Lodge, Prestwich

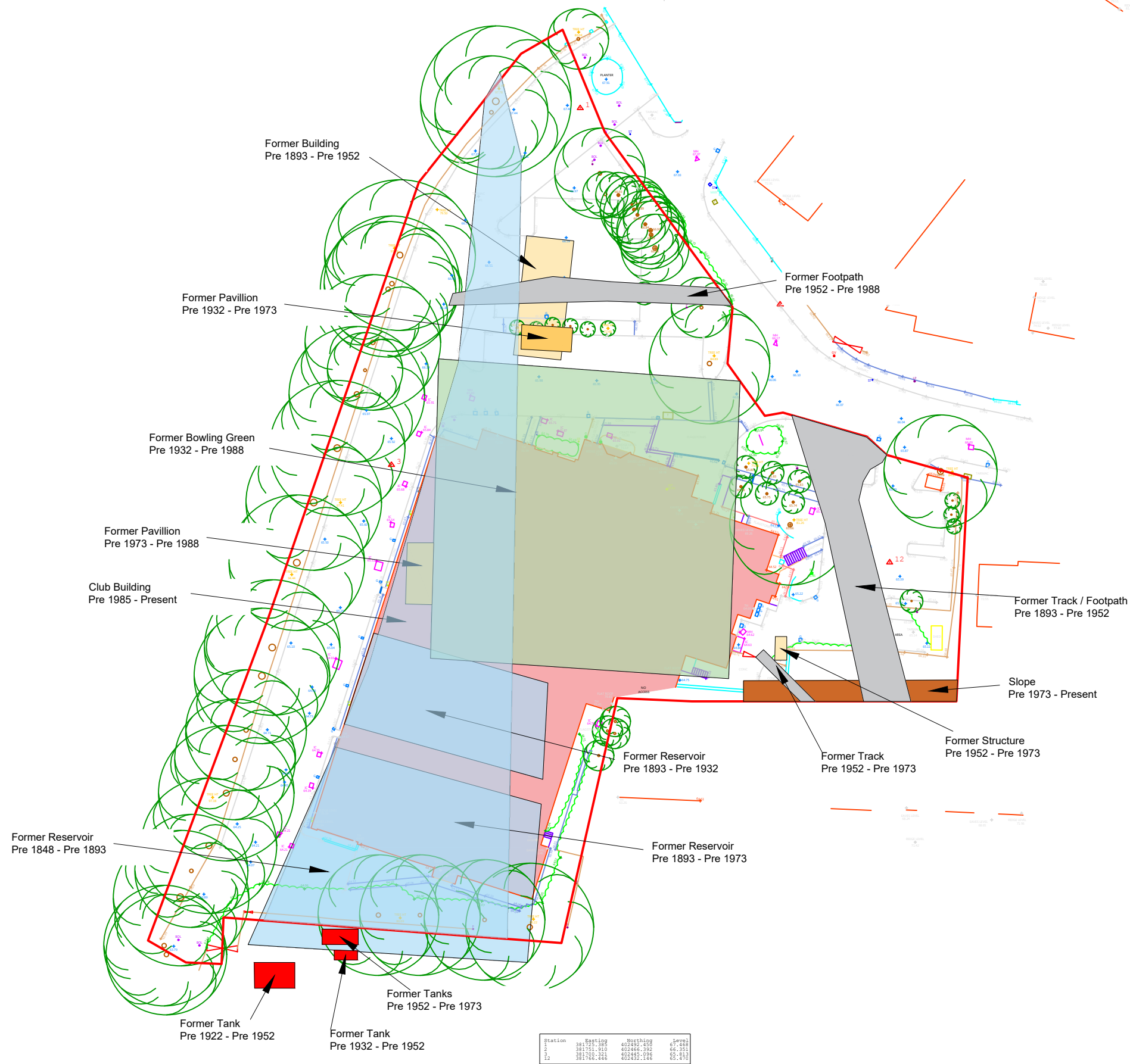
Job No:	17-206
Drawing No:	002

Date:	18.09.2023
Scale:	NTS@ A3



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Taylor Road, Trafford Park
Urmston, Manchester, M41 7JQ
Tel: 0161 707 9612
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Website: www.e3p.co.uk

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Historical Features

- Former Reservoirs
- Club Building
- Former Bowling Green
- Former Pavillions
- Former Building / Structure
- Former Tanks
- Former Footpaths / Tracks
- Slope

Notes:

P1	REVB	19.09.2023	EB	NS	NS
Phase	Issue	Date	Drawn	Checked	PM

Client:

McCarthy & Stone

Job Title:

Fairways Lodge,
Prestwich

Job No:

17-206

Drawing No:

003

Date:

19.09.2023

Scale:

NTS@ A3

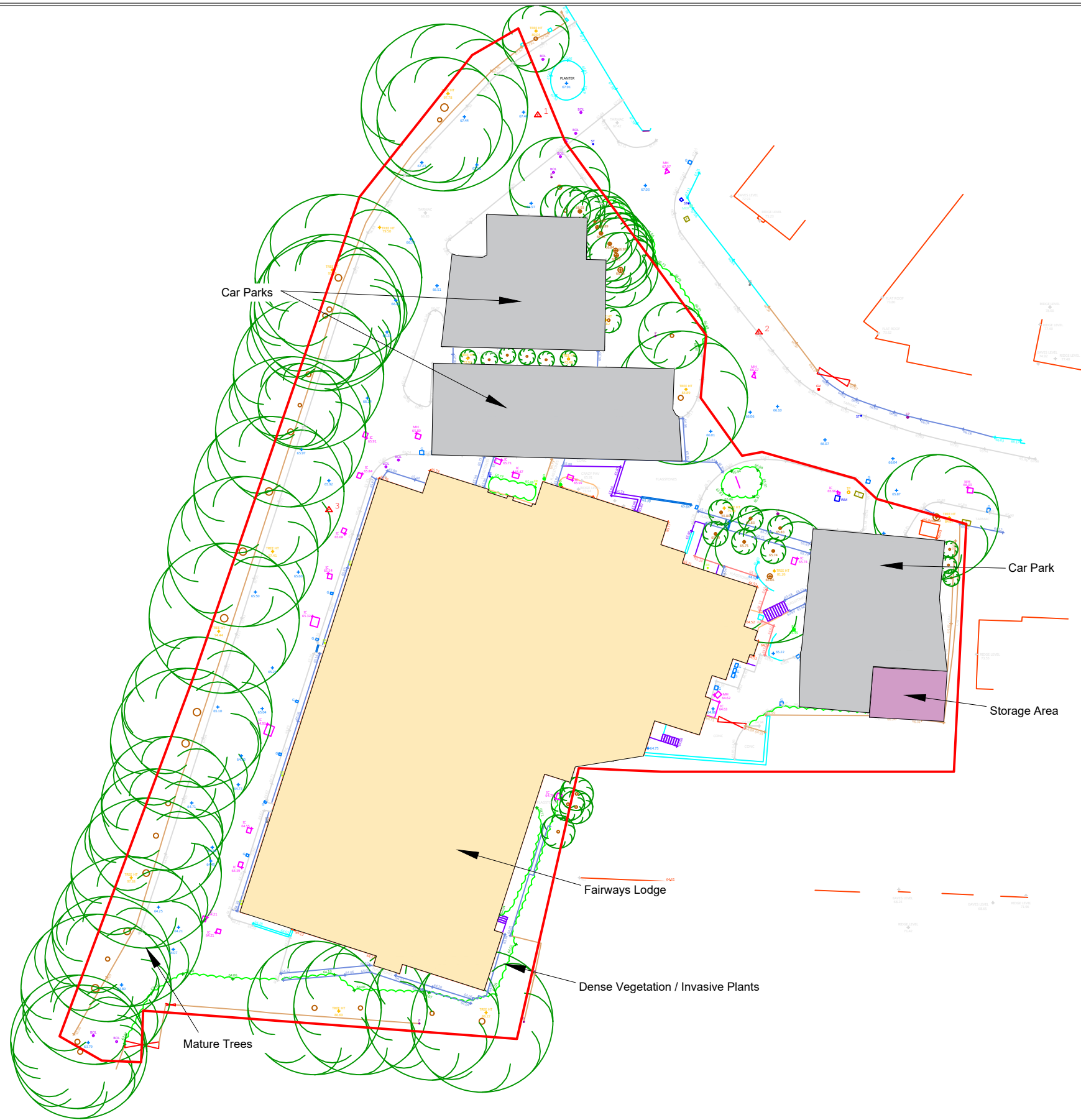
Drawing Title:

Historical Features
Plan



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Site Features

- Fairways Lodge
- Storage Area
- Car Parks
- Mature Trees

Notes:

P1	REVB	19.09.2023	EB	NS	NS
P1	REVA	18.09.2023	EB	NS	NS
Phase	Issue	Date	Drawn	Checked	PM

Client:

McCarthy & Stone

Job Title:

Fairways Lodge,
Prestwich

Job No:

17-206

Drawing No:

004

Date:

19.09.2023

Scale:

NTS@ A3



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Drawing Title:

Site Features Plan

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APPENDIX V

PHOTOGRAPHS

PLATE 1 VIEW OF CAR PARK IN THE NORTH (FACING SOUTH)



PLATE 2 VIEW OF FAIRWAYS LODGE FROM GEORGE STREET IN THE NORTH



PLATE 3 MATURE TREES ALONG NORTHERN BOUNDARY



PLATE 4 VIEW OF FAIRWAYS LODGE AND TREES ALONG THE WESTERN BOUNDARY



PLATE 5 INVASIVE PLANTS – SOUTHEAST SECTOR



PLATE 6 INVASIVE PLANTS – SOUTHEAST SECTOR



APPENDIX VI

HISTORICAL MAPS

Site Details:

VILLAGE SQUASH CLUB,
FAIRWAYS LODGE HOTEL,
GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1848

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

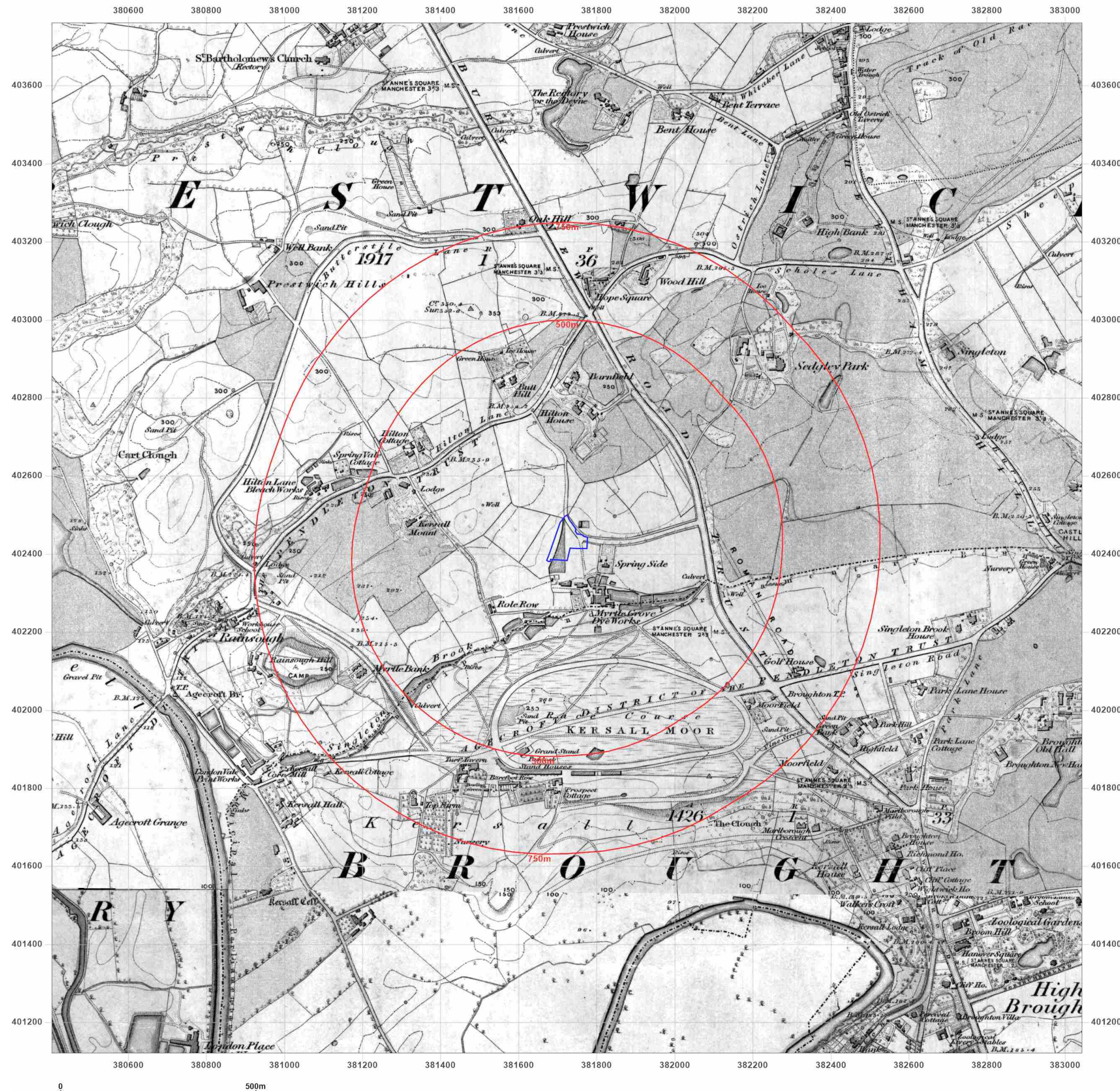


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Production date: 08 September 2023

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

VILLAGE SQUASH CLUB,
FAIRWAYS LODGE HOTEL,
GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1891-1894

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1889
Revised 1889
Edition 1894
Copyright N/A
Levelled N/A

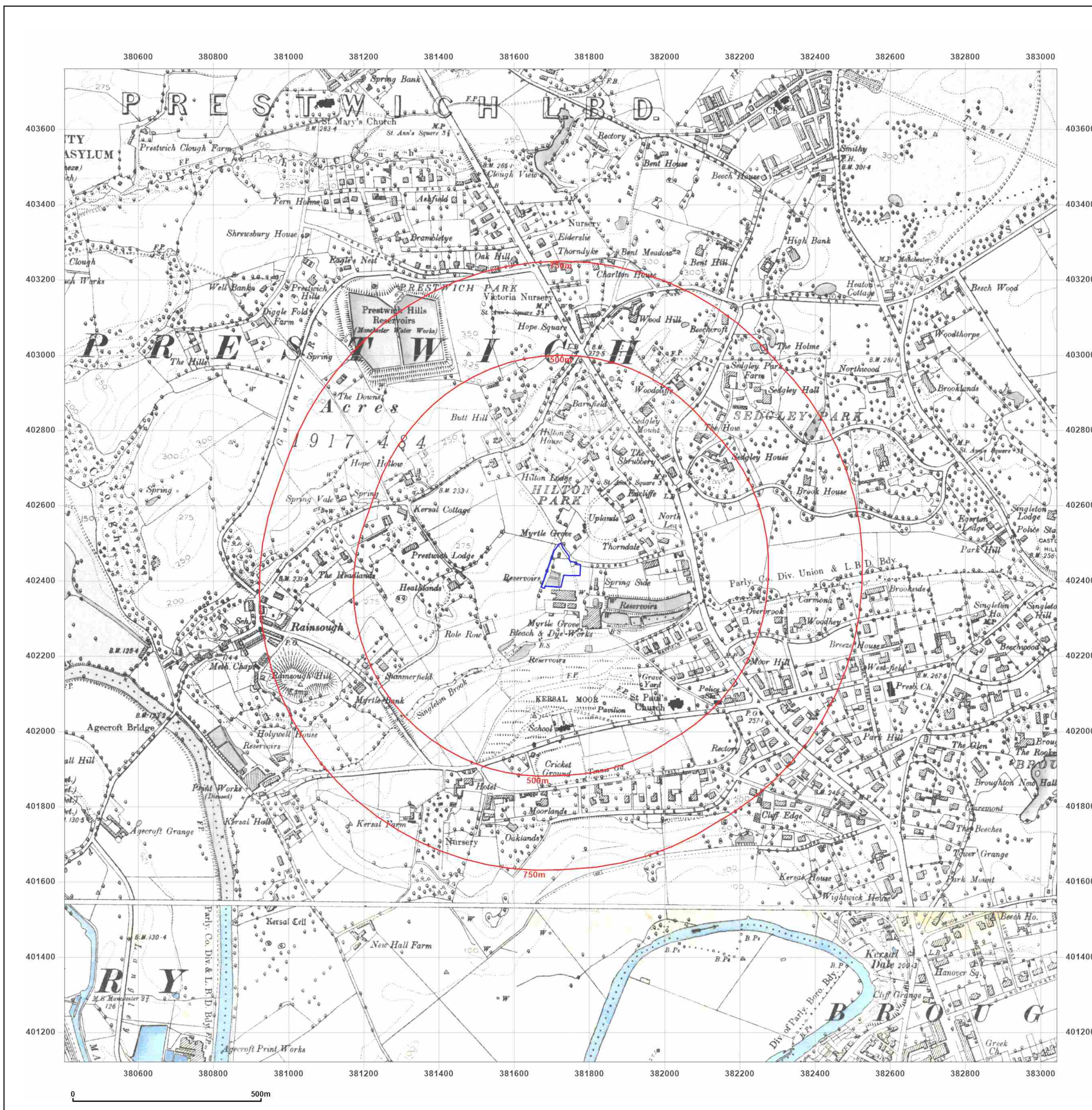


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Site Details:

VILLAGE SQUASH CLUB,
FAIRWAYS LODGE HOTEL,
GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1906-1907

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1907
Edition N/A
Copyright N/A
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Surveyed 1844
Revised 1906
Edition 1906
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M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1915

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
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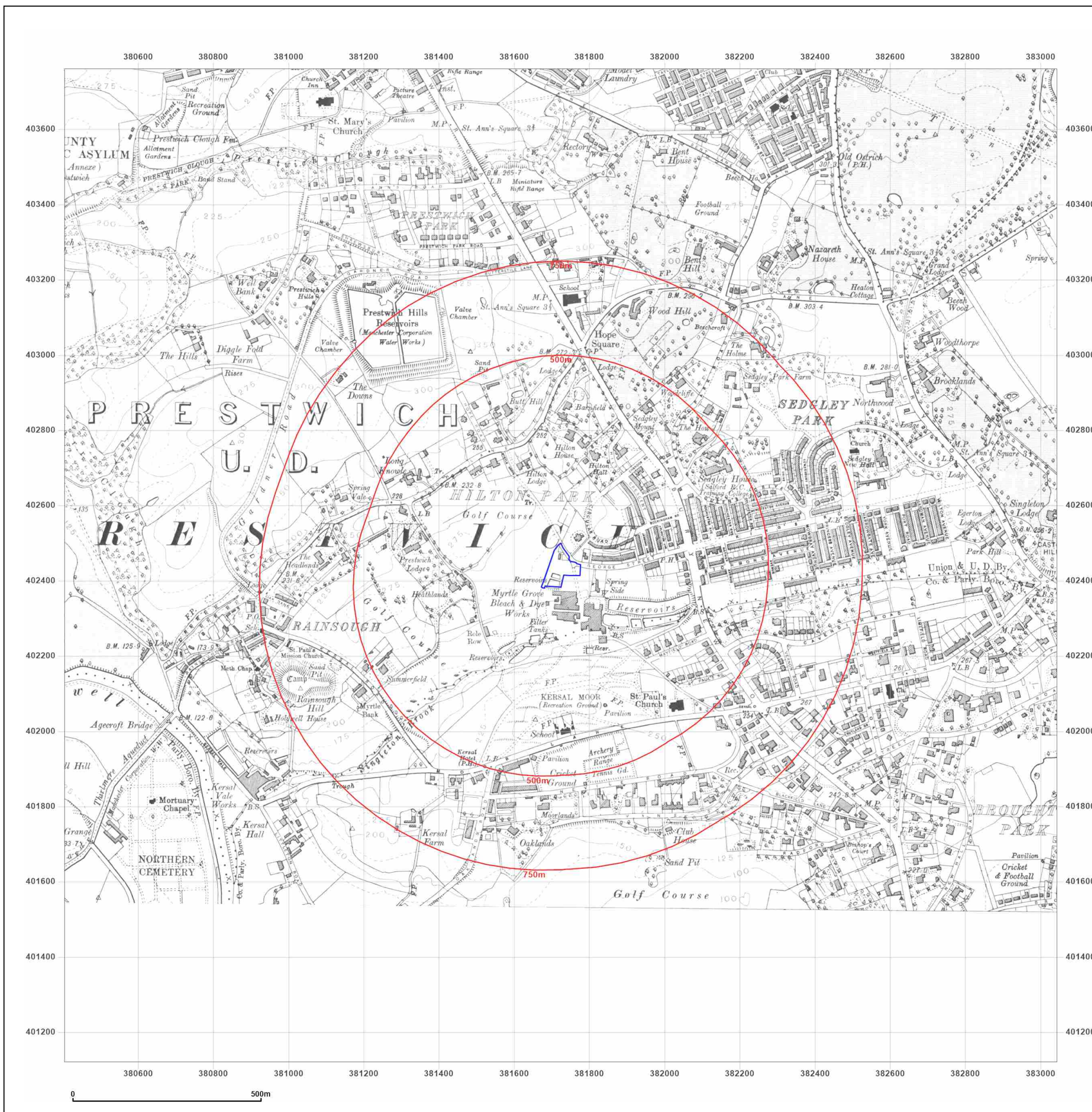


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M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

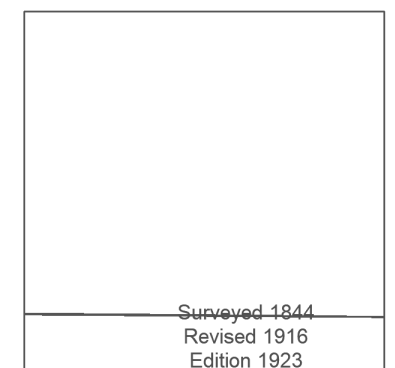
Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

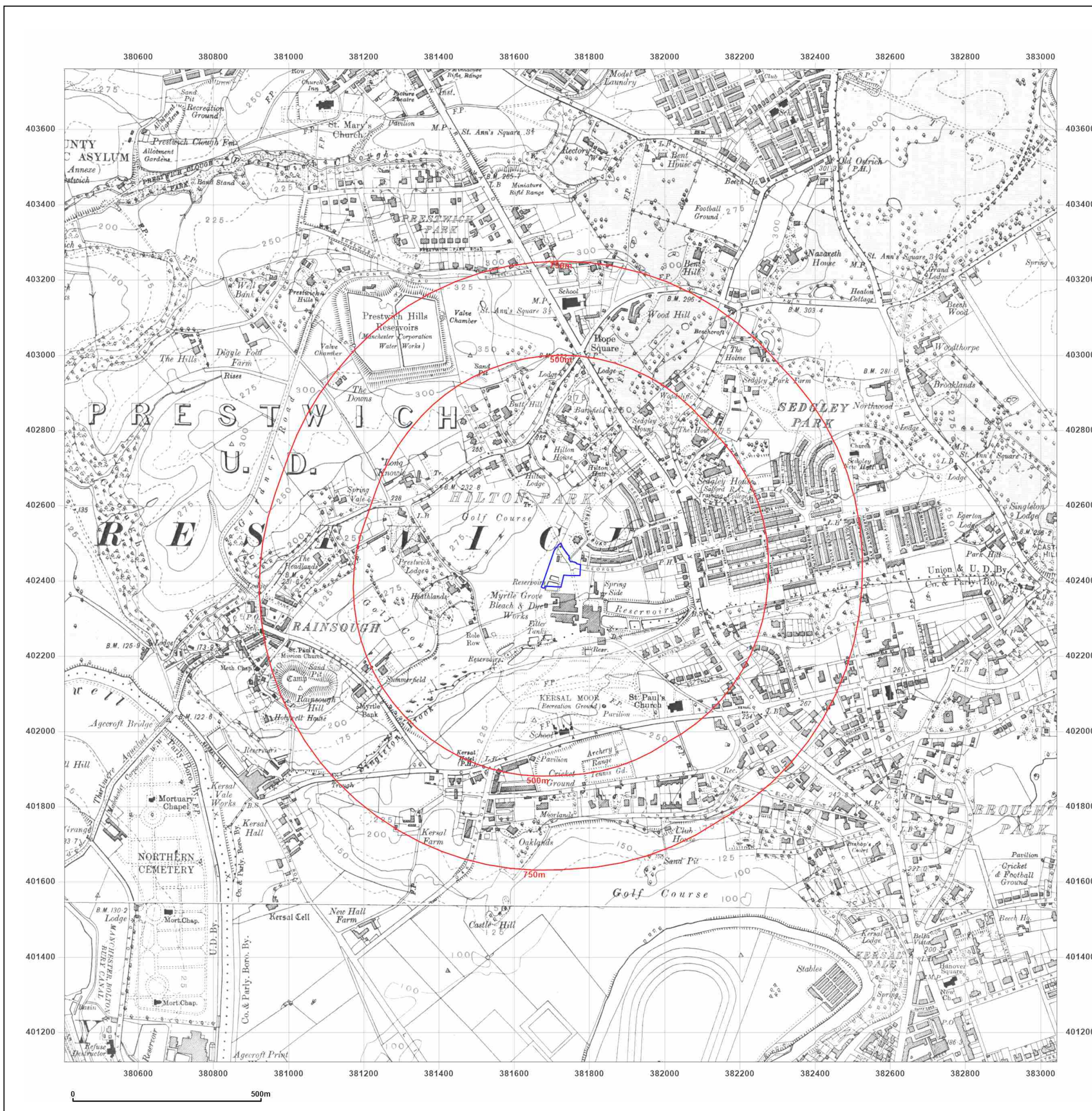


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Site Details:

VILLAGE SQUASH CLUB,
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GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1931-1932

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1931
Edition 1931
Copyright N/A
Levelled 1927

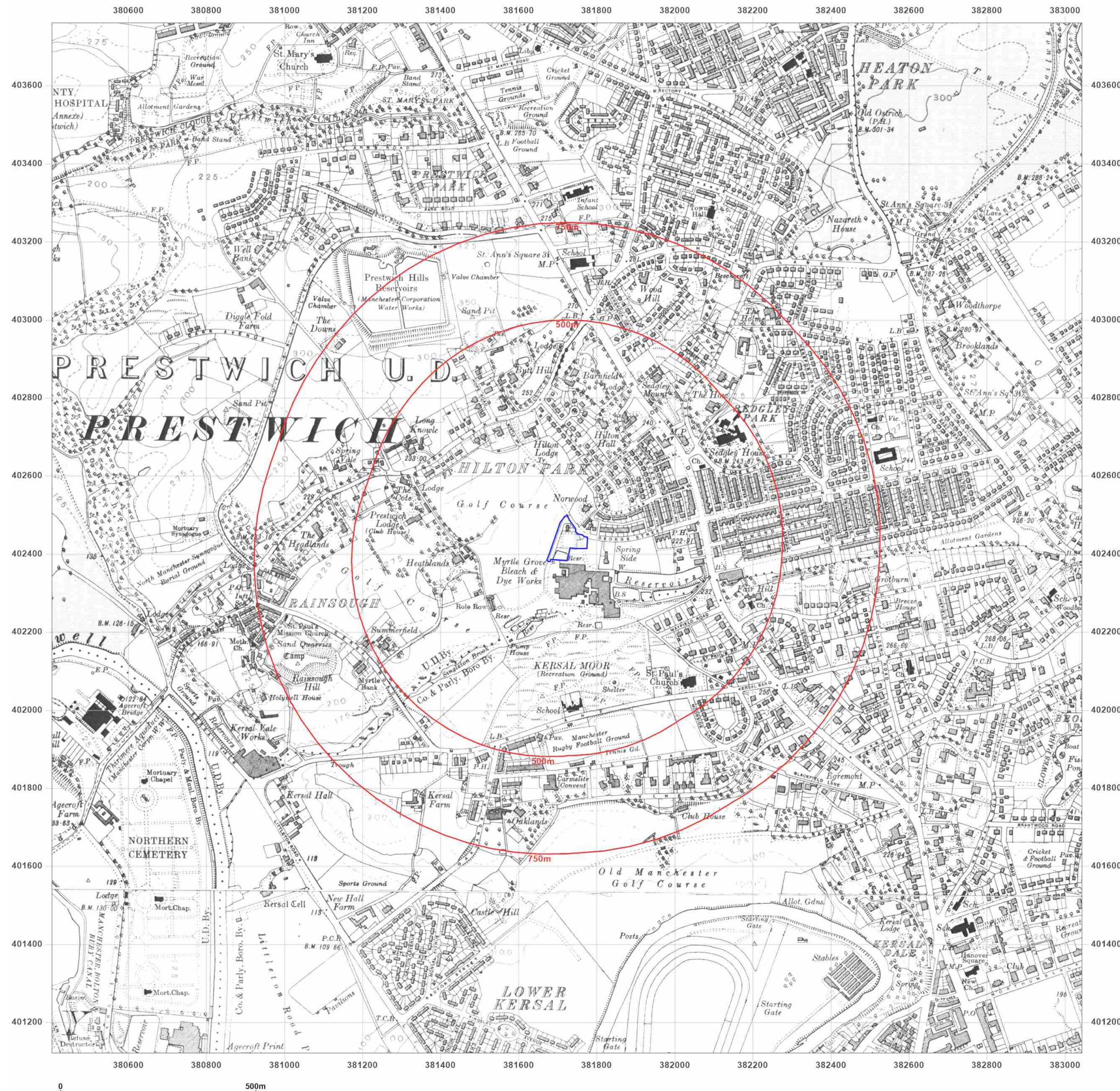


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Site Details:

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GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
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Surveyed 1844
Revised 1938
Edition 1938
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Site Details:

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FAIRWAYS LODGE HOTEL,
GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref:

006107

Report Ref:

GS-EI9-HQT-QWP-51R

Grid Ref:

381723, 402440

Map Name:

Provisional

Map date:

1956

Scale:

1:10,560

Printed at:

1:10,560



Surveyed 1956
Revised 1956
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Site Details:

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GEORGE STREET, PRESTWICH,
M25 9WS

Client Ref: 006107
Report Ref: GS-EI9-HQT-QWP-51R
Grid Ref: 381723, 402440

Map Name: Provisional

Map date: 1968

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1968
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