

QUALITY	DESCRIPTION	ACC.	QUALITY	DESCRIPTION
1	Drainage Survey	100%	2	Drainage Survey
2	Drainage Survey	100%	3	Drainage Survey
3	Drainage Survey	100%	4	Drainage Survey
4	Drainage Survey	100%	5	Drainage Survey

DETECTION METHOD
IN ACCORDANCE WITH PAS 128:2014 SURVEY TYPE B

DRAINAGE SURVEY
All accessible Manholes and Inspection chambers have had their respective covers lifted with pipe scopes, invert, chamber cross-sections and service data recorded from ground level. All connections from DPH, Gullies, Drains, VFR, RE's and templates have been proven wherever possible using audio connections (AC) and/or sonde instrumentation where applicable. Where these methods have proved unsuccessful then assumed (AR) straight line connections will be shown.

CCTV DRAINAGE SURVEY
All accessible Manholes and Inspection chambers have had their respective covers lifted with pipe scopes, invert, chamber cross-sections and service data recorded from ground level. Pipework has been traced, accessed and collected for post processing. Drainage layout, including manhole covers not located by topographical survey, may be taken from CCTV change and will be shown as indicative only.

Electricity
Elec cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

British Telecoms
BT cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required. Due to current laws and legislation protecting all BT apparatus, calling can only be located remotely. We therefore compare all our telecom findings against record information to produce the final service layout. In some instances, where high amount of cable ducts are present, we may only be able to identify a linear centre peak signal rather than identifying all the individual duct positions. For further information regarding Telecoms apparatus, please contact Openreach directly.

Cable TV & Coax
Cable TV and Coax cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

Fibre Optic
FO cables will have been predominantly located using GPR methodology. This is due to the materials used within fibre optic cabling. In some rare instances, tracer cabling or conductive non fibre optic cabling will be present within some or all during. When this is the case, both EML and GPR methodology will be continued to identify service network and achieve greater quality levels.

Lighting, Traffic Signs & Security Cables
LC, TS and/or Sec cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

Gas & Water Inc. Fuel Pipes and Hot Water Pipes
GMSB and/or WWHV pipe work will have been attempted and located using both EML & GPR methodology with electronically derived depths shown for the former and depths to crown levels shown for the latter. When the Gas/Water pipe work is constructed using conductive materials, then we are able to employ multiple geophysical techniques to identify service network and achieve greater quality levels. Where a non conductive material is used, GPR methodology will be employed to locate and plot the final service layout.

Ground Penetrating Radar
GPR methodology is used to identify and locate all non metallic, non conductive piping and cabling. We also employ GPR to obtain a greater accuracy levels on EML located services. The GPR has a greater success rate on pipe or service diameter upward of 300mm (12in), as size increments increase, so does the chance of detection. The GPR can produce varying results and as such, wouldn't be used as an independent utility surveying instrument.

Undetectable Traces
All UTs will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required. Every effort has been made to identify the service but in this instance, it is not achievable. We recommend excavation work to determine identity and depth where applicable.

Scanning (OL-C)
Scanning has been identified on site with a potential of an undetectable service present.

Assumed Routes & Taken from Records (TR)
Assumed routes (AR) are shown if there is evidence that a service exists but we are unable to trace it whilst on site. The surveyor will attempt to locate various risers/valves/meters (service evidence) etc. around site area to successfully determine an assumed route between these points. If there is little evidence on site for they believe a service is still present, then a common sense approach to an assumed route shall be employed.

Taken from records (TR) are service routes that are taken from STAT record plans or previous survey information and overlaid onto our drawings.

SURVEY RECOMMENDATIONS

We recommend a PAS utility survey of the entire site to establish the position of underground services.

The areas of dense vegetation to be cleared to allow access if any of these areas are deemed critical or of high importance.

The sewers with high levels of silt or blockages to be jetted to extend the CCTV drainage survey, if any of these areas are deemed critical or of high importance.

We recommend full statutory record information be obtained to confirm site findings and to position undetectable which may be present.

Due to the geophysical nature of subsurface technology, we always recommend excavation works to be carried out within critical areas for verification and to eliminate the possibility of undetectable services present.



UTILITIES & UNDERGROUND INVESTIGATIONS

ABBREVIATIONS & SYMBOLS

BT	British Telecom	DC	Depth To Crown	RCC	Rectangular Brick Chamber
BT	British Telecom	DI	Depth To Invert	RCC	Rectangular Concrete Chamber
AC	Audio Connection	DT	Depth To Top	RE	Rectangular Chamber
AD	Above Ground	DTB	Depth To Base	SA	Survey Aligned
AR	Assumed Route	DTB	Depth To Base	SA	Survey Aligned
BL	Base Level	DTB	Depth To Base	SA	Survey Aligned
CB	Concrete Box	DTB	Depth To Base	SA	Survey Aligned
CBC	Concrete Box Chamber	DTB	Depth To Base	SA	Survey Aligned
CC	Concrete Core Chamber	DTB	Depth To Base	SA	Survey Aligned
CL	Cover Level	DTB	Depth To Base	SA	Survey Aligned
CPC	Cable Protected Chamber	DTB	Depth To Base	SA	Survey Aligned
CL	Cover Level	DTB	Depth To Base	SA	Survey Aligned
CL	Cover Level	DTB	Depth To Base	SA	Survey Aligned

DRAINAGE NOTES

Any area on the drawing where services or features have not been shown are not necessarily clear of services or features but are an indication that no items have been identified during our investigations. All reasonable care and normal good practice should still be employed during design and construction processes.

Certain types of services such as plastic or concrete pipes, some conduit and ducting where direct access can not be achieved for tracing may not be shown and alternative locating methods should be used.

Survey Solutions has used all reasonable care to research available service records but the completeness or use of the service records supplied to or by Survey Solutions cannot be guaranteed. Therefore Survey Solutions cannot be held responsible for any features annotated as taken from records (TR).

Depths obtained using electro-magnetic or GPR are effected by ground conditions and should be treated as indicative only. Electro-magnetic depths to utilities and services are generally taken to the centre of a feature. GPR depths to the top of a feature and drainage depth shown to inverts, unless otherwise indicated.

Drainage pipe sizes will be obtained without entering the chamber and therefore should be treated as approximate. Pipe dimensions which have not been obtained visually will be taken from records where available.

All services, drainage and utilities routes are assumed straight between access points, unless otherwise stated. The numbers of cables in runs will not be shown unless specifically requested. All services are below ground unless indicated.

Services, utilities and features may not have been surveyed if obstructed or not reasonably visible or accessible at the time of survey.

Survey Solutions accept no responsibility for the completeness or accuracy of either the topographical survey or base mapping on this project.

All critical dimensions and measurements should be checked and verified with any errors or discrepancies notified to Survey Solutions immediately. The accuracy of the digital data is the same as the plotting scale implies. All dimensions are in metres unless otherwise stated.

The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work.

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Do not scale from this drawing.

GENERAL SYNOPSIS

This survey has been carried out in accordance with PAS 128:2014 & our version of the Royal Institution of Chartered Surveyors (RICS) specification for Measured Survey of Land, Buildings and Utilities. Our survey extents have been agreed and confirmed with formal acceptance of 67032 from Surveyors to Education. If you have any queries regarding the final services layout, please may we ask you to carefully read all the information within this title block in its entirety before continuing to do so.

TOPOGRAPHICAL SURVEY DATE	09/06/2023
TOPO	
DESCRIPTION	
EFFECT ON SURVEY RESULTS	
OUTDATED	
REVISIONS	

GENERAL SITE CONDITIONS	AVERAGE
ADDITIONAL INFORMATION	EFFECT ON SURVEY RESULTS

UTILITY	NO	NR

REV	DESCRIPTION	DRAWN	CHECKED	APPROVED	SURVEY DATE

SURVEY SOLUTIONS

LAND SURVEYING
BUILDING SURVEYING
UNDERGROUND SURVEYING
SITE ENGINEERING
MONITORING

0845 040 5969
survey-solutions.co.uk

POWELL, BEDFORD, COUNTRY, GLASGOW, LONDON, MANCHESTER, NOTTINGHAM, NOTTINGHAM, YORK

PROJECT TITLE	REDMOOR ACADEMY, WYKIN ROAD, HINXLEY, LE10 0EP.
DRAWING DETAILS	UTILITIES AND CCTV DRAINAGE SURVEY. SHEET 1 OF 2
CLIENT	SURVEYORS TO EDUCATION
SURVEYOR	AD
SURVEY DATE	12/06/2023
CHECKED BY	JTM
APPROVED BY	JTM
DWG STATUS	FINAL
DRAWING NUMBER	49127NGUG-01
REVISION	
ISSUE DATE	16/06/2023

Taken from records (TFR) are service routes that are taken from STAT record plans or previous survey information and overlaid onto our drawings.

Do not scale from this drawing

RICS chartered ices THE SURVEY ASSOCIATION