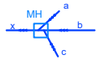
Drainage Example



Letters correspond with CCTV report and indicate pipe references.

Warning

Water & Gas utilities entering into properties are generally of a size that cannot be detected by Radio dectection of GPR. The route of these is shown from surface evidence suchs as pipe risers or valves. This data should be viewed as a guide only and safe digging techniques should be used at all times.
Records information & positions should be viewed as approximate and indicative. Safe digging practices should be used to verify thier position and type.
Utilities depths marked with an 'i' have ben detected using an induced method and therefore should be regarded as less reliable than a directly traced utility.

Detection Grades (PAS128)

Method Type	Quality Grade	Horizontal Accuracy	Vertical Accuracy	Detection Clarification
Desktop Records Search	D	N/A	N/A	Service shown on records only not found on site.
Site Reconnaissance	C	N/A	N/A	A segment of utility whose location is demonstrated by visual reference to street furniture, topograpghical features or evidence of previous street works (reinstatement scar).
Detection	B4	Undefined	Undefined	A utility segment which is suspected to exist but has not been detected and is therefore shown as an assumed route.
Detection	B3	+- 500mm	Undefined No Reliable Depth	Horizontal location only of the utility detected by one of the geophysical techniques used.
Detection	B2	+- 250mm	+- 40% Detected Depth	Horizontal and vertical location of the utility detected by one of the geophysical techniques used.
Detection	B1	+- 150mm	+- 15% Detected Depth	Horizontal and vertical location of the utility detected by multiple geophysical techniques used.
Verification	A	+- 50mm	+- 25mm	Horizontal and vertical location of the top and/or bottom of the utility.

Disclaimer

All services shown on this plan have been surveyed using approved detectors and the connections between manholes, if not traced, are assumed to be direct.

Should the background, or topographical, information for the survey area be based on an Ordnance Survey tile we are not liable for any loss that may arise due to a lack of accuracy in that digital data.

Location accuracy detected by EML methods are determined by referring to manufacturer's guidelines for the equipment used. In ideal conditions the accuracies for the underground utilities located and mapped are +/-10% of the depth. Whilst this technique has proven to be successful, it is not 100% reliable and is affected by ground conditions. The depths obtained are for the centre of the conductor and do not necessarily the depth to a duct or pipe.

Although all reasonable effort is made during site detection, the completeness of the underground services information cannot be guaranteed. An electric current will flow along the path of least resistance. This means that when a current is induced into a feature it will 'jump' to adjacent features if they offer a better conducting pathway. It is possible, therefore, that features that are detected by connecting to one type of apparatus may not in fact be that type of utility. The identification of apparatus cannot be assumed to be totally accurate. It should be noted that the technique is limited to detecting features that either generate an electromagnetic field, such as power cables, or around which an electromagnetic field can be induced, such as some water pipes and some communications cables, and it cannot therefore be guaranteed to reveal the exact routes of all buried services or to detect their presence.

GPR is only useful on flat relatively smooth surfaces free from obstructions. Areas of vegetation, waterlogged areas or uneven ground will often not be scanned using GPR as the data is too unreliable. GPR is affected by below ground conditions. Saturated ground or concrete re-enforcement bars are examples of below ground conditions that can have effects on the results of scans.

Service information can also be shown on the drawings taken from statutory undertakers record plans. This information is shown for the sake of completeness and Subscan UDS Ltd can take no responsibility for the positional accuracy of such information as this may be digitised directly from service plans provided. Information shown as stat plan information may duplicate traced routes but may be offset due to the inaccuracy of the service records from which the information has been digitised.

Sub Surface Key

- CATV — CATV Cable
- CCTV — CCTV Cable
- COM — Comms Cable
- D — Duct
- ER — Earthing Rod
- E — Electric Cable
- HV — Electric HV Cable
- LV — Electric LV Cable
- F/O — Fibre Optic
- GAS — Gas Pipe
- GPR Anomaly
- GPR — GPR Linear
- HW — Heating Pipe
- RM — Rising Main
- Surface Sewer
- Foul Sewer
- Combined Sewer
- TS — Trade Effluent
- TS — Traffic Signal Cable
- ? — Unidentified
- W — Water Main
- VP — Vent Pipe
- FL — Fuel Pipe
- OL — Oil Pipe Line
- Survey Extents
- AR B4 — Assume Route
- TFR B4 — Taken From Records

Topographic & Utility Key

AV	Air Valve	WM	Water Meter
BH	Borehole	WO	Wash Out
BIN	Bus Stop	WV	Water Valve
OSBM	Benchmark	1.00d	Depth (m)
BO	Bollard	UTT	Unable to trace
MAIL	Postbox	UTTF	Unable to trace Further
BUS	Bus Stop		
CCTV	Camera	EOT	End of Trace
Col	Column	LOR	Lost of Reflection
G	Gully	LOS	Lost of Signal
EL	Electric Point	(s)	Sonded
EP	Electric Pole	(i)	Induced
ER	Earth Rod	S/A	Survey Abondoned
FH	Fire Hydrant		
FFL	Floor Level	AR	Assumed Route
FP	Flag Pole	TFR	Taken from Records
FV	Flap Valve		
GP	Gate Post	UTR	Unable to Raise
GV	Gas Valve	UTS	Unable to Survey
IL	Invert Level	MAR	Man Access Required
GL	Floor Light		
LP	Lamp Post	CL	Cover Level
MH	Manhole	IL	Invert Level
MK	Marker	U/S	Underside/Soffit
RE	Rodding Eye	DOC	Depth of Cover
RWP	Rain Water	DOB	Depth Bottom
SC	Stop Tap	PT	Poor Trace
SP	Sign	NVP	No Visible Pipe
SV	Stop Valve	ED	Empty Duct
SVP	Soil Vent Pipe	BLKD	Blocked
TAP	Tap	CR	Cable Riser
TOF	Top of Fence	DC	Drainage Channel
TOW	Top of Wall		
TEL	Telecom Cover		
THL	Threshold Level		
TL	Traffic Light		
TP	Telegraph Pole		
V	Vent		
WL	Water Level		

Control & Datum Information

The grid shown on this drawing is based on a plan provided to Subscan and has a scale factor equal to 1. The co-ordinates have been derived by graphical best fit means to an OS Plan Extract and is subject to the inherent inaccuracy in that data.

Approx Direction of North

THE SURVEY ASSOCIATION FULL MEMBER

REV	DATE	DRAWN	DESCRIPTION	CHECKED
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CLIENT
Mr. Jim Granger

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HD5 8EX

DRAWING TITLE
CCTV Drainage Survey

DRAWING REF (LAYOUT TAB)		SCALE@A3
GR66218-DR		1/100
PROJECT REF	SHEET	REV
GR/66218	1 of 1	0

SURVEYED	JB	DRAWN	CG
CHECKED	RH	DATE	10/11/2023