

NOTES:

UTILITY KEY

	ELECTRIC CABLE
	ELECTRIC & COMMS CABLE
	TRAFFIC SIGNAL CABLE
	TELECOMS CABLE
	CABLE TELEVISION
	COMMUNICATION CABLE
	WATER PIPE
	GAS PIPE
	FOUL DRAINAGE
	CONTAMINATED SURFACE DRAINAGE
	SURFACE DRAINAGE
	COMBINED DRAINAGE
	PUMPING MAIN
	FUEL PIPE
	VENT PIPE
	OFFSET FILL PIPE
	GAUGE LINE
	VAPOUR RECOVERY
	SERVICE DUCTS
	HEATING PIPES
	UNIDENTIFIED SIGNAL
	SURVEY BOUNDARY
	END OF TRACE

ABBREVIATIONS

AC	ASBESTOS CEMENT	MM	MANHOLE/WELL OVERHEAD
AR	ASSUMED ROUTE	OM	OPEN MANHOLE
BB	BASE BEND	OS	OFF-SHORE AREA
BC	BACKHOLE	PS	POST-YIELDING
BR	BORING	PR	PIPE RISER
CI	CAST IRON	PC	PIPE COVER/CHLORIDE
CL	COVER LEVEL	PR	PIPE RISER
CO	CONCRETE	RS	ROOFING SYSTEM
CR	CABLE RISER	SA	SCAMWAY
CS	CATCHMENT	SI	STEEL
CT	CATCHMENT	ST	STOP TAP
CU	CULVERT	ST	STOP TAP
ED	EMPTY DUCT	SV	SLUCE VALVE
ESOC	END OF TRENCH SCAR	TFR	TAKEN FROM RECORD
EOT	END OF TRACE	TFR	TAKEN FROM RECORD
ER	ENTRANCE	TL	TRAFFIC LIGHT
EP	ELECTRICITY POLE	TF	TELEPHONE POLE
FR	FIRE HYDRANT	UF	UNABLE TO FIND
GP	GLASS PENETRATING RADAR	UTS	UNABLE TO SURVEY
GRP	GLASS REINFORCED PLASTIC	VP	VENT PIPE
GS	GAS VALVE	VR	VENT PIPE
H	HEAD OF RUN	W	WATER METER
IC	INSPECTION CHAMBER	WM	WATER METER
IL	INVERT LEVEL	WO	WASH OUT VALVE
LP	LAMP POST		
M	MANHOLE		
SWS	SURFACE WATER SEWER		
FWS	FOUL WATER SEWER		
CWS	COMBINED WATER SEWER		

DISCLAIMER

ELECTRO-MAGNETIC TECHNIQUES AND/OR GRAVITY PENETRATING RADAR HAVE BEEN USED IN THE LOCATION OF UNDERGROUND SERVICES. THE RESULTS ARE NOT INFALLIBLE AND TRAIL EXAMINATIONS SHOULD BE CONSIDERED TO CONFIRM SERVICE DEPTH, LOCATION, POSITION AND DIMENSIONS. WHERE NECESSARY, THE SERVICES SHOULD BE EXPOSED AND REASONABLE EFFORTS SHOULD BE MADE IN SEARCHING AVAILABLE RECORD DRAWINGS FOR DISCREPANCIES BETWEEN LIVES AND DEAD SERVICES AND AS SUCH INFORMATION CANNOT BE GUARANTEED. THE METHOD OF SURVEY DOES NOT DIFFERENTIATE BETWEEN LIVES AND DEAD SERVICES AND AS SUCH ALL SERVICES SHOULD BE TREATED AS LIVE.

WHERE SERVICES ARE IDENTIFIED BY METALLIC POSITIONS MAY BE TAKEN FROM RECORDS, TRENCH SCARS & SURFACE DETAIL.

WHERE QUOTED DEPTHS/ESTIMATIONS ARE GENERALLY TO THE CENTRE OF THE SERVICE, DEPTHS TO GRAVITY SENSORS AND DEPTHS ARE GENERALLY TO WATER LEVELS UNLESS OTHERWISE STATED.

PIPE SIZES WHICH CANNOT BE OBTAINED BY VISUAL SURVEY ARE TAKEN FROM RECORD DRAWINGS OR MARKER PLATES WHERE AVAILABLE.

WHERE GROUND PENETRATING RADAR HAS BEEN USED, IT WILL PRIMARILY BE USED TO IDENTIFY UNDERGROUND UTILITIES. IF POSSIBLE, WE WILL ALSO IDENTIFY UNDERGROUND STRUCTURES. TAKE NOTE THAT WE CANNOT GUARANTEE TO HAVE LOCATED ALL SUCH ITEMS. THE USE OF RADAR CAN BE LIMITED BOTH BY SURFACE CONDITIONS AND ALSO BY ITS DEPTH ESTIMATION WHICH WILL NOT NORMALLY BE PROVIDED FOR SERVICES LOCATED WITH GPS.

greenhatch group

Topographical Surveys Measured Building Surveys
 Site Engineering 3D Laser Scanning
 Utility / CCTV Surveys Revit & BIM Models

Rowan House
 Duffield Road
 Little Eaton
 Derby
 DE21 5DR

Tel (01332) 830044 Fax (01332) 830055
 admin@greenhatch-group.co.uk
 www.greenhatch-group.co.uk

St Albans Newcastle Poland
 Unit 8, The Courtyard 24 Riverside Studios ul. Piłsudskiego 91
 Abson Park Armitage Road 40-761 Katowice
 Hertfordshire Newcastle-U-Tyne Poland
 t. (01727) 854481 t. (01912) 736391 t. 0048 32 202 2292
 www.greenhatch.pl

CLIENT: **Blackburn & Co LTD**

PROJECT: **St Pancras Campus
63 Pratt Street London
NW1 0DQ**

TITLE: **Underground
Utility Survey**

SCALE	DATE
A1@ 1:200	20/09/18
DRAWN	QUALITY REF
SL	13275

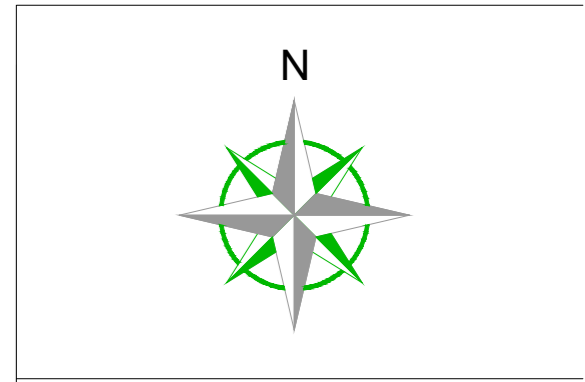
Level datum: Grid orientation

Job number: 31168

Drawing No. **31168_UG_1** Rev. **0**

Comments:
 This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.
 All dimensions should be checked on site prior to design and construction.
 Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:



NOTES:

UTILITY KEY

[Symbol]	ELECTRIC CABLE
[Symbol]	ELECTRIC & COMMS CABLE
[Symbol]	TRAFFIC SIGNAL CABLE
[Symbol]	TELECOMS CABLE
[Symbol]	CABLE TELEVISION
[Symbol]	COMMUNICATION CABLE
[Symbol]	WATER PIPE
[Symbol]	GAS PIPE
[Symbol]	FOUL DRAINAGE
[Symbol]	CONTAMINATED SURFACE DRAINAGE
[Symbol]	SURFACE DRAINAGE
[Symbol]	COMBINED DRAINAGE
[Symbol]	PUMPING MAIN
[Symbol]	FUEL PIPE
[Symbol]	VENT PIPE
[Symbol]	OFFSET FULL PIPE
[Symbol]	GAUGE LINE
[Symbol]	VAPOUR RECOVERY
[Symbol]	SERVICE DUCTS
[Symbol]	HEATING PIPES
[Symbol]	UNIDENTIFIED SIGNAL
[Symbol]	SURVEY BOUNDARY
[Symbol]	END OF TRACE

ABBREVIATIONS

AC	ASBESTOS CEMENT	MM	MANHOODING WELL OVERHEAD
AB	BASE BEND	ON	ON
BB	BLOCK BEND	OSR	OS
BR	BROOKHOLE	OSR	OSR
BT	BRIK	PE	POLYETHYLENE
CB	CAST IRON	PR	PIPE RASER
CC	COVER LEVEL	PRC	PIPE RASER CHLORIDE
CD	CONCRETE	RWP	ROOFING EYE
CF	CATCH	SR	STEEL
CG	CAST IRON	ST	STOP TAP
CH	CHIMNEY	SV	SLUCE VALVE
CI	CAST IRON	SV	SLUCE VALVE
CL	EMPTY DUCT	TFR	TRAPPED EXIT TAKEN FROM RECORD
CM	CAST IRON	TL	TRAFFIC LIGHT
CO	CONCRETE	TRF	TRAP
CP	COVER LEVEL	TV	TELEVISION POLE
CS	CAST IRON	UTV	UNABLE TO FIND
CT	CAST IRON	UTV	UNABLE TO SURVEY
CU	CAST IRON	VE	VENT PIPE
CV	CAST IRON	VE	VENT PIPE
CR	CAST IRON	VM	VAPOUR RECOVERY
CS	CAST IRON	WL	WATER LEVEL
CS	CAST IRON	WM	WATER METER
CS	CAST IRON	WO	WASH OUT VALVE

DISCLAIMER

ELECTRO-MAGNETIC TECHNIQUES AND/OR GROUND PENETRATING RADAR HAVE BEEN USED IN THE LOCATION OF UNDERGROUND SERVICES. THE RESULTS ARE NOT INVALUABLE AND TRAIL EXAMINATIONS SHOULD BE CONSIDERED TO OBTAIN SERVICE IDENTIFICATION, POSITIONS AND DEPTHS. WHERE THE SERVICE DEPTHS TO GRAVITY SERVICES AND PIPES ARE GENERALLY TO WATER LEVELS UNLESS OTHERWISE STATED.

PURSES WHICH CANNOT BE OBTAINED BY VISUAL SURVEY ARE TAKEN FROM RECORD DRAWINGS OR MARKER PLATES WHERE AVAILABLE.

WHERE GROUND PENETRATING RADAR HAS BEEN USED IT WILL INDICATE THE PRESENCE OF AN OBJECT BUT IT DOES NOT GUARANTEE THE USE OF RADAR CAN BE LIMITED BOTH BY SURFACE CONDITIONS AND BY THE TYPE OF SURFACE. THE DEPTHS LISTED DO NOT NORMALLY PROVIDE FOR SERVICES LOCATED WITH GPS.

Rev	Date	Description	Drawn	Q Ref

greenhatch group

Topographical Surveys | Measured Building Surveys
 Site Engineering | 3D Laser Scanning
 Utility / CCTV Surveys | Revit & BIM Models

Rowan House
 Duffield Road
 Little Eaton
 Derby
 DE21 5DR

Tel (01332) 830044 | Fax (01332) 830055
 admin@greenhatch-group.co.uk
 www.greenhatch-group.co.uk

CLIENT: **Blackburn & Co LTD**

PROJECT: **St Pancras Campus
63 Pratt Street London
NW1 0DQ**

TITLE: **Underground
Utility Survey**

SCALE	DATE
A1@ 1:200	20/09/18
DRAWN	QUALITY REF
SL	13275

Level datum	
Grid orientation	
Job number	31168
Drawing No.	31168_UG_2
Rev.	0

Comments:
 This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.
 All dimensions should be checked on site prior to design and construction.
 Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes: