Coordinate Table

Station	Description	Easting	Northing	Level
51	PEG	470439.412	105825.964	5.473
52	PEG	470411.185	105841.015	5.283
53	PEG	470407.390	105868.568	5.320
54	PEG	470414.582	105880.130	5.368
55	PEG	470417.871	105885.527	5.023
56	PEG	470438.042	105896.313	4.621
57	PEG	470463.046	105902.672	4.261
58	PEG	470476.250	105914.481	3.845
59	PEG	470482.281	105932.316	3.508
510	PEG	470465.258	105938.812	3.460
511	PEG	470443.911	105937.650	3.444
512	PEG	470413.570	105919.626	4.172
513	PEG	470398.266	105914.473	5.028
514	PEG	470383.944	105910.899	5.559
515	PEG	470365.642	105901.883	6.338
521	PEG	470431.587	105849.784	4.768
541	PEG	470419.970	105869.850	5.177
561	PEG	470451.164	105917.166	3.302
591	PEG	470494.059	105942.235	3.856
592	PEG	470523.892	105954.477	3.945
593	PEG	470548.974	105956.065	3.902
5100	PEG	470552.662	105808.263	5.220
5101	PEG	470336.289	105832.398	5.201
5102	PEG	470335.234	105862.161	5.414
5103	PEG	470343.013	105892.038	6.391

HARTS FARM WAY, LAND BEHIND BASEPOINT
EXTERNAL UNDERGROUND SERVICES SURVEY
SURVEY REPORT

Date: 27th June 2013
Job No: 18598

General
A composite record plan was provided by the client. No original copies of the statutory records were provided. Site is very overgrown with trees and foliage, which restricted the use of the utility detection equipment.

Abbreviations Key

RD – Radiodetection.	The RD8000 is an electromagnetic detector, which can transmit a signal onto a metallic service, and locate it from the surface.
GPR – Ground Penetrating Radar.	Used to scan the variations in ground signature from the surface by radar. Success is dependent on favourable ground conditions.
HV – High Voltage.	Any electricity cables 11kV and above.
LV – Low Voltage.	Any electricity cables below 11kV.

Drainage
All drainage was lifted with pipe sizes and invert levels recorded. Wherever possible the chamber sizes have been recorded and positioned on the drawing. All connections from gullies, external rainwater pipes and external soil stacks have been proven wherever possible into manholes and sewer runs. Where a saddle connection is present the position is assumed only. Connections between manholes have been assumed to be straight. All drainage should be cross checked in critical areas by CCTV survey or hand dug trial holes. Unable to locate some manholes due to high thick and dense overgrowth, site needs clearing to locate and prove drainage routes.

Water
There was no evidence of water services within the surveyed area.

Gas
There was no evidence of gas services within the surveyed area.

Electricity
Electric feed to foul pump was traced by direct connection to an electric cabinet, then into building. There was no evidence of the 33kV cable as shown on the composite record drawing. This may be due to access limitations with the utility detection equipment. We recommend further investigation in critical areas.

Telecom
There was no evidence of telecom services within the surveyed area.

CATV
There was no evidence of CATV services within the surveyed area.

SEE CAUTIONARY NOTES WITHIN THE UTILITY KEY

Notes :

1. GRID AND LEVELS BASED ON OSGB36 NATIONAL DATUM DERIVED FROM THE NATIONAL GPS NETWORK, LSF REMOVED FROM ALL CALCULATIONS.
2. TREE AND HEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS.
3. DRAINAGE INFORMATION HAS BEEN DETERMINED WITHOUT MAN ENTRY INTO CHAMBERS AND WHILST EVERY EFFORT HAS BEEN MADE TO CORRECTLY IDENTIFY THIS INFORMATION, IT SHOULD ALWAYS BE CHECKED IN AREAS THAT ARE CRITICAL TO THE FUTURE PROPOSAL.
4. ALL SEWERS ARE PRESUMED TO BE STRAIGHT BETWEEN CHAMBERS.
5. TREE AND HEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS.

KEY

GENERAL

(ACP)	ASBESTOS CEMENT PIPE
BIN	LITTER BIN
CHW	CHEMICAL WATER
COW	CABLE ON WALL
CW	COMBINED WATER
DIS	DISUSED
DK	DROP KERB
EOT	END OF TRACE
FO	FIBRE OPTIC
FP	FOOTPATH
FW	FOUL WATER
GP	GATE POST
GPR	GROUND PENETRATING RADAR
HV	HIGH VOLTAGE
KV	KILO VOLT
LB	LETTER BOX
LV	LOW VOLTAGE
NDI	NO DEPTH INFORMATION
NFI	NO FURTHER INFORMATION
NPV	NO PIPES VISIBLE
OSBM	ORDNANCE SURVEY BENCHMARK
POW	PIPE ON WALL
RED	REDUNDANT SERVICE
RMAIN	RISING MAIN
RW	RETAINING WALL
SNP	STREET NAME PLATE
SW	SURFACE WATER
UTL	UNABLE TO LIFT
UTS	UNABLE TO SURVEY
TP	TELECOM POLE
VP	VENT PIPE
WM	WATER METER
WO	WASH OUT
WR	WATER RISER
WWELL	WET WELL

DEPTHS

d	ELECTRONICALLY DERIVED
Pd	PASSIVELY DERIVED
Cd	DEPTH TO CROWN
Id	DEPTH TO INVERT
Sd	DEPTH TO SOFFIT

MATERIALS

AC	ASBESTOS CEMENT
ALK	ALKATHENE
BK	BRICK
CI	CAST IRON
CO	CONCRETE
DI	DUCTILE IRON
HDPE	HIGH DENSITY PE
MDPE	MEDIUM DENSITY PE
PE	POLYETHYLENE
PER	PERFORATED
PVC	POLYVINYL CHLORIDE
SI	SPUN IRON
ST	STEEL
URIB	ULTRA RIB
VC	VITRIFIED CLAY

LEVELS

BD	BACK DROP LEVEL
BL	BASE LEVEL
CL	COVER LEVEL
FL	FLOOR LEVEL
IL	INVERT LEVEL
RL	ROOF LEVEL
SOF	SOFFIT LEVEL
WL	WATER LEVEL

FENCES

B/W	BARBED WIRE FENCE
C/B	CLOSED BOARDED FENCE
CPL	CONCRETE PANEL FENCE
C/I	CORRUGATED IRON FENCE
CNP	CHESTNUT PAILING
C/L	CHAIN LINK FENCE
I/R	IRON RAILINGS
P/R	POST AND RAIL FENCE
P/W	POST AND WIRE FENCE
W/M	WIRE MESH FENCE

APPARATUS

AV	AIR VENT
BB	BELISHA BEACON
BO	BOLLARD
BOL	BOLLARD LIGHT
BS	BUS STOP
BT	BT INSPECTION COVER
CATV	CABLE TELEVISION
CB	CONTROL BOX
CPIT	CATCH PIT
CR	CABLE RISER
DCH	DRAINAGE CHANNEL
EB	ELECTRIC CONTROL BOX
EP	ELECTRIC POLE
ER	EARTH ROD
FFP	FUEL TANK FILL POINT
FH	FIRE HYDRANT
GR	GAS RISER
GV	GAS VALVE
GY	GULLY
IC	INSPECTION COVER
INT	INTERCEPTOR
KO	KERB OUTLET
LD	LOOP DETECTOR
LH	LAMP HOLE
LP	LAMP POST
MK	MARKER POST / PLATE
MH	MANHOLE
MT	METER
MWELL	MONITORING WELL
PO	POST
PTG	PIPE TO GROUND
PU	PUMP
RE	RODDING EYE
RS	ROAD SIGN
RWP	RAIN WATER PIPE
SC	STOP COCK
SP	SOIL PIPE
ST	STAY CABLE
SVP	SOIL VENT PIPE
SV	STOP VALVE
TCB	TELEPHONE CALL BOX
TL	TRAFFIC LIGHT
TLC	TRAFFIC LIGHT COVER

LINESTYLE

INTERNAL METER	-M?-
POT ENDED SERVICE	
INTERNAL VALVE	
UNDERGROUND CHAMBERS	
ABOVE GROUND	A/G
ASSUMED ROUTE	(AR)
EMPTY DUCTS	(E)
OVERHEAD	O/H
BACK DROP	
PEA TRAP	
UTILITY CROSSOVER	
SURVEY BOUNDARY	
VERBAL INFORMATION	(VI)
RECORD INFORMATION	(R)
REDUNDANT SERVICE	
RISING MAIN	

SERVICE TYPE

ELECTRICITY (HV)	
ELECTRICITY (LV)	
FUEL	
GAS	
OVERHEAD ELECTRIC	
OVERHEAD TELECOM	
CHEMICAL SEWER	
COMBINED SEWER	
FOUL SEWER	
SURFACE SEWER	
TELECOM	
UNKNOWN SERVICE	
WATER	

CAUTIONARY NOTES

1. Electromagnetic techniques have been used in the location of underground services, the results are not infallible and trial excavations must be carried out in order to confirm identification, position and in particular depth of the service, where these are critical.
2. Ground Penetrating Radar (GPR) techniques have been used in the location of non metallic services (including fibre optic) wherever record information or surface scanning indicates the existence of a particular service. The interpretation of these results is not infallible and success will depend on a number of factors including soil type, ground water levels and surface conditions, hence trial excavations must be carried out in order to confirm identification, position and in particular depth of the service, where these are critical.
3. Depths derived via electromagnetic detection are usually taken to the centre of the conductor (cable, metallic pipe) and those derived via Ground Penetrating Radar are usually to the top of the service.
4. Where cable routes cannot be individually selected for tracing, any one trace could be a single cable or a cluster of cables.
5. The locations of 'joint-ended' cables are often difficult to detect and although we will make all reasonable efforts to locate or transpose this information from records, we cannot guarantee that 'joint-ended' cables do not exist on this site.
6. Drainage information has been obtained without man entry into the chamber and MK Surveys presume that sewers are straight between chambers.
7. Pipe / Duct sizes are shown from visual inspection or taken from record information. Pipe sizes are recorded in millimetres and depths in metres.
8. Water and Gas services to individual properties are often of a size that cannot be detected using Electromagnetic or GPR investigation, wherever possible the route will be added from surface evidence (pipe risers, valves, etc), but this should be viewed as a guide only.
9. MK Surveys cannot confirm when services are redundant and unless there is surface evidence of a redundant service, cannot guarantee being able to locate all redundant services.
10. Wherever possible the results of our investigations will be cross referenced with record information and where there is further information available and this cannot be detected on site, the information will be added to the drawing and indicated as such (R). However it should be noted that the completeness and accuracy of the records cannot be guaranteed.
11. The utility information has been compiled from non-intrusive survey techniques; it always remains possible that there are additional services within the survey boundary that we have not been able to detect. We recommend that care is taken on site and that all service records are used in conjunction with this survey.
12. The responsibility for avoiding damage to assets and services on site shall be that of the persons proposing to excavate within the surveyed area, who shall be liable to the asset owner and any third party who may be affected in any way for any loss or damage.

ALWAYS EXERCISE CAUTION WHEN EXCAVATING.

TOPOGRAPHICAL KEY

SURVEY STATION · BANKING (TOP / BOTTOM) · HEDGE SPREADS · WOODLAND CANOPY · MARSH / WATERLOGGED · TREES (SPREAD & GIRTH SHOWN TO SCALE) · GATE · KERB CHANNEL · ROAD UNKERBED · FENCE · WALL · BUILDING · OPEN SIDED BUILDING · GLASSHOUSE · CONTOUR 25.50 · SPOT LEVEL + 127.13 · BORE HOLE BH · TRIAL HOLE TH · FOOTPATH · CHANGE IN SURFACE

Revision	Description	Date

mksurveys — 40 years old in 2012
www.mksurveys.co.uk

Tel 01908 565561	Milton Keynes	enquiries@mksurveys.co.uk
Tel 01865 594979	Oxford	oxford@mksurveys.co.uk
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CampbellReith

Land at Harts Farm Way
Havant
Hampshire

Topographical and Utility Survey

Scale	Sheet Size:	Sheet Number:	Date:
1:200	A0	1	June 2013
Project Number:	Rev:	Surveyed By:	Approved By:
18595	-	CP / GS	RE / GL