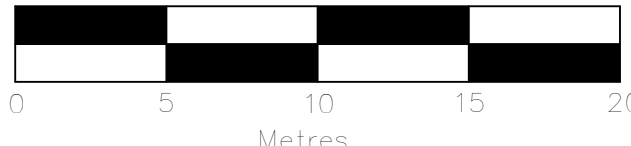


Underground Infrastructure Mapping

Hyde Park London

Sheet 2 of 4
October 2011



Scale
1:250

Horizontal Datum: Supplied by client
Vertical Datum: Supplied by client
Units: Metres

Key to Underground Infrastructure Line Style and depth determination

(based on electricity example)

- Position derived from radio-location/GPR trace
- Position derived from combination of statutory records or other source and radio-location/GPR trace
- Position derived from statutory records or other source
- Depth derived by radio detection
- Depth derived from GPR
- Depth derived from trial hole

Linetype Information

- Electricity
- Telecoms
- Gas
- Data
- Cable Television
- Closed Circuit Television
- Water
- Undertified
- Miscellaneous Cables
- Surface Water Sewer
- Foul Water Sewer
- Limit of Survey

Abbreviations

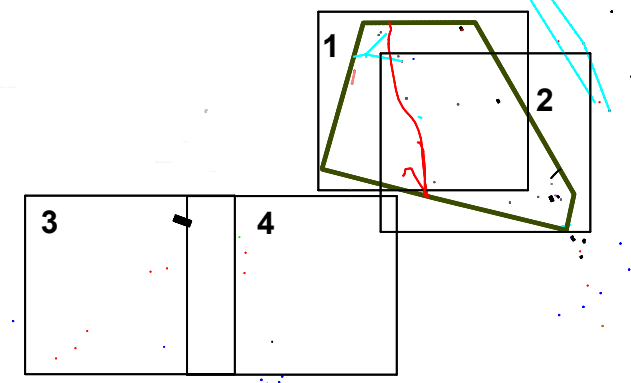
IC	Inspection Cover	CR	Cable Riser	CI	Cast Iron
UTL	Unable to lift	TPO	Telegraph Pole	ST	Steel
CL	Cover Level	TIL	Traffic Induction Loop	PE	Polyethylene
IL	Invert Level	TL	Traffic Light	SI	Spun Iron
BGL	Below Ground Level	TSC	Traffic Signal Cable	ST	Steel
WL	Water Level	SL	Street Lamp	DI	Ductile Iron
		CAB	Cabinet	AC	Asbestos Cement
G	Gully	EMKR	Electricity Marker	PVC	Polyvinyl Chloride
DP	Down Pipe	ER	Earth Rod	CPVC	Unplasticised PVC
RE	Roading Eye	AV	Air Valve	CO	Concrete
VP	Vent Pipe	WST	Wash Out	MDPE	Medium Density Polyethylene
SOL	Start of Line	WV	Water Valve		
HD	Highway Drain	WM	Water Meter	BR	Brick
		WO	Wash Out	PV	Polyvinyl
EDT	End of Trace	PH	Fire Hydrant	AK	Alkathene
UTT	Unable to Trace				
UTS	Unable to Sonde	PLM	Pipeline Marker	HP	High Pressure
LCS	Limit of Sonde	CAB	Street Cabinet	MP	Medium Pressure
GSV	Gas Valve	TH	Trial Hole	IP	Intermediate Pressure
GM	Gas Meter	GPR	Ground Penetrating Radar	LP	Low Pressure
GR	Gas Riser				

Survey Notes

- Only one survey station could be found (003), the information has been located from this and oriented by best fit around the band stand. A good check fit with other detail has been found.
- The Radar data interpretation has been affected by tree roots. This is particularly true in the area around the bandstand. Where it was possible to distinguish between tree roots and underground services, the tree roots have been excluded, all unidentified radar anomalies should be treated accordingly. It is possible that tree root signals may have obscured small or deep lying pipes / cables.

Revisions

- 08/01/2012 Area extended to include indicative route of 10" pipe adjacent to Rotten Row



Type	Authority	Reference	Checked By	Date
All utility information	Royal Parks	Various	RBa	08/11/2011

Data source: SRS0000 GPR, RDB000
Estimated horizontal position accuracy of service line +/- 0.3m

Depths derived from radio detection methods are measured to centre of pipe/cable

Depths from GPR and Trial holes are measured to top of pipe/cable

Depths derived from GPR are measured to top of feature; this may be affected by materials above the actual utility feature e.g. protective tiling, sand and backfill etc.

LandScope Engineering Ltd endeavour to supply the most accurate data possible through the employment of technology and methodology at the forefront of our industry. Although we take great care in the detection of pipe-work, cabling and buried features, as with all methods the information is derived from electrical and radar scans and as such may be subject to distortion and error beyond the reasonable control of the operator and associated instrumentation. A correction factor will be applied where such distortion or error is evident but no responsibility can be accepted for errors, omissions or incorrect data resulting from such.

Dimensions, material types and service providers of buried utilities are taken from statutory plans, where available.
Every effort has been made to locate street lamp power and domestic / commercial service supplies, however, due to the size, material and relative conductivity of these feeds, not all will be mapped.

Services such as BT, electric and cable television will often compromise multiple duct/cables. For the purpose of presentation, routes of such services are shown as a single line. These lines represent routes of service and not the specific width or number of ducts/cables. Where possible each line will represent the central alignment.

Sizes and materials of sewers are estimates only, based on observations made at each inspection cover.
Manhole entry / trial hole ground truthing is recommended where position is critical to design and subsequent works.

Only data shown within the survey boundary should be considered a complete dataset. Data shown outside of the survey area is for contextual purposes only.

NOTE:
The data supplied does not remove or reduce the responsibilities of site personnel when working near underground services. Site personnel should refer to the New Roads and Street Works Act 1991, including Chapter 5 - Safe Digging Practices (reproduced from Appendix 7 to HSE Publication HS(G)47 - Avoiding Danger from Underground Services) for further information.

Prepared for: The Royal Parks
The Old Police House
Hyde Park
London
W2 2UH

Surveyed by: R. Baker, E. Swift, J. Kilroy, J. Wood
Date: 28/10/2011

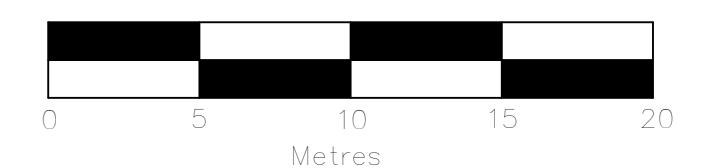
Drawing Ref	Rev	Date	Description	Filename	Drawn By	Chk By	Appr By
1218_250_0	0	04/10/2011	Final Issue	1218_0	RBa	ESw	
1218_250_1	1	12/01/2012	Area of new includes 10" pipe adjacent to Rotten Row	1218_1	RBa	ESw	

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Underground Infrastructure Mapping

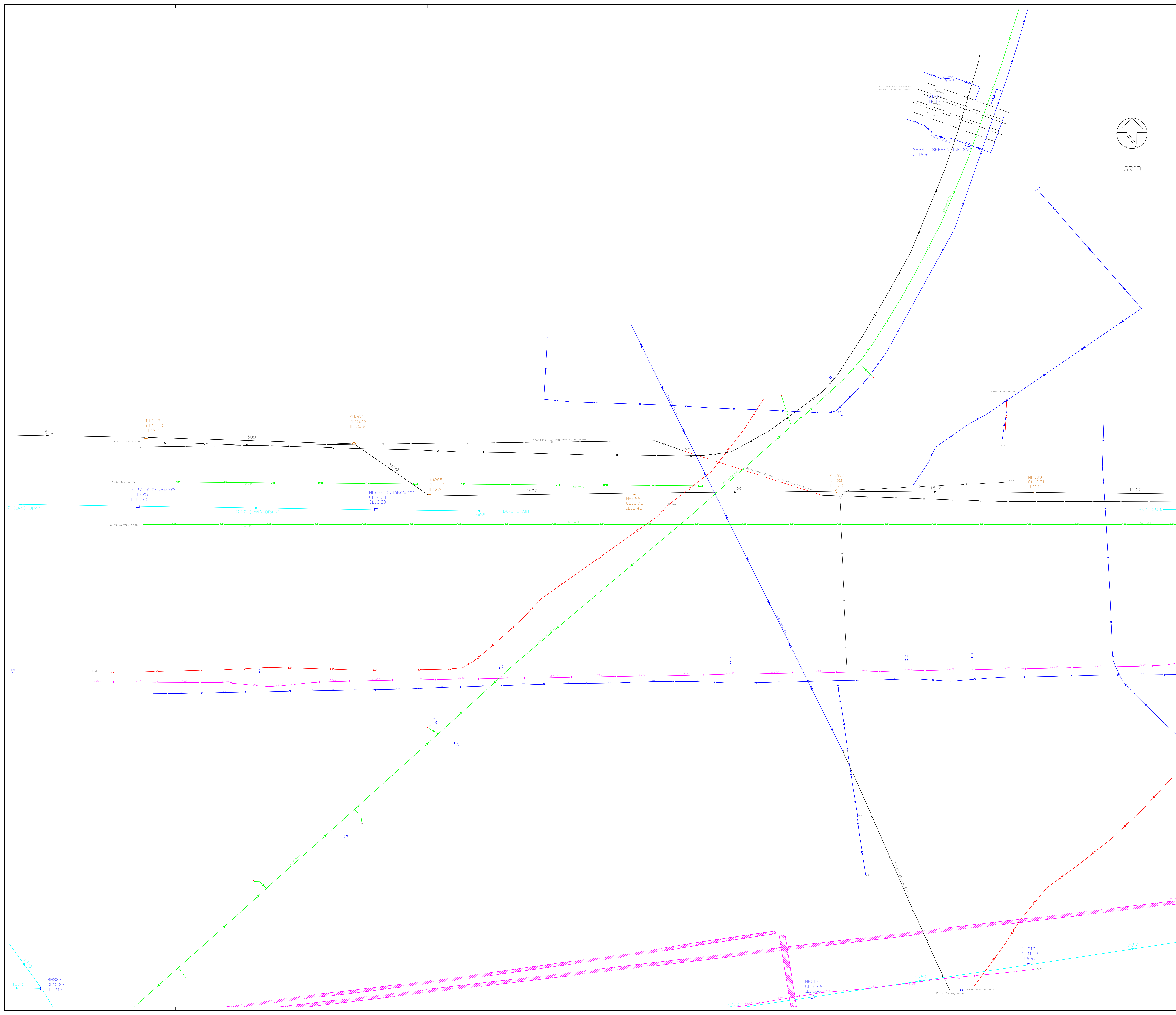
Hyde Park London

Sheet 3 of 4
October 2011



Scale
1:250

Horizontal Datum: Supplied by client
Vertical Datum: Supplied by client
Units: Metres



Key to Underground Infrastructure Line Style and depth determination (based on electricity example)	Linetype information
	Electricity
	Telecoms
	Gas
	Cable Television
	Dala
	Closed Circuit Television
	Water
	Unidentified
	Miscellaneous Cables
	Surface Water Sewer
	Foul Water Sewer
	Limit of Survey

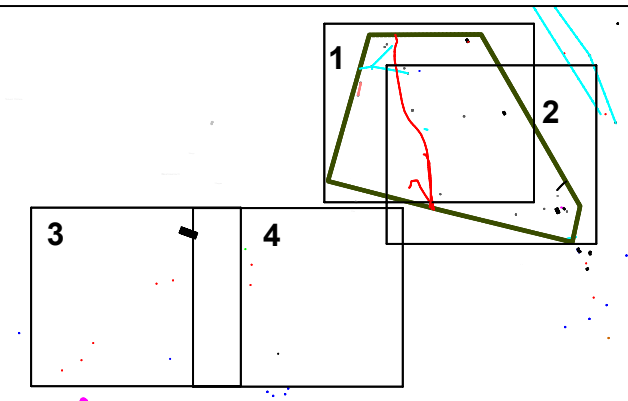
Abbreviations					
IC	Inspection Cover	GR	Cable Rider	CI	Cast Iron
UTL	Underlay Thickness	PO	Tongue Piece	ST	Steel
CL	Cover Level	TL	Traffic Induction Loop	PE	Polyethylene
CL	Level Level	TL	Traffic Light	SI	Spun Iron
BGL	Below Ground Level	TSC	Traffic Signal Cable	ST	Steel
WL	Water Level	SL	Signal Lamp	DI	Ductile Iron
G	Gully	CAB	Cabinet	AC	Acetylene Cement
DE	Down	EMBR	Electricity Meter	PP	Polypropylene Chloride
RP	Roadside	ER	Earth Road	uPVC	Unplasticized PVC
VP	Vertical			GC	Concrete
WD	Width of Lane	AV	Air Valve	VC	Voided Clay
HW	Highway Drain	WSV	Stop Tap	MDPE	Medium Density Polyethylene
		WSV	Sludge Valve	BR	Brick
		WM	Water Meter	PV	Polyvinyl
		WO	Wash Out	AK	Alkane
EOT	End of Traffic	FI	Fire Hydrant		
UTL	Underlay Thickness	PLM	Pipeline Marker	HP	High Pressure
UTL	Underlay to Sende	CAB	Cabinet	MP	Medium Pressure
UTL	Underlay to Sende	TN	Traffic Noise	LP	Intermediate Pressure
UTL	Underlay to Sende	QPR	Ground Penetrating Radar	LP	Low Pressure
GSV	Gas Valve				
GM	Gas Meter				
GS	Gas Stop				

Survey Notes

1) Only one survey station could be found (8003), the information has been located from this and oriented by best fit around the band stand. A good check fit with other detail has been found.

2) The Radar data interpretation has been affected by tree roots. This is particularly true in the area around the bandstand. Where it was possible to distinguish between tree roots and underground services, the tree roots have been excluded, all unidentified radar anomalies should be treated accordingly. It is possible that tree root signals may have obscured small or deep lying pipes / cables.

Revisions
1) 09/01/2012 Area extended to include indicative route of 10" pipe adjacent to Rotten Row



Statutory Service Providers Record Register				
Type	Authority	Reference	Checked By	Date
All utility information	Royal Parks	Various	RBa	08/11/2011

Data source: SIR3000 GPS, RDR0000
Estimated horizontal position accuracy of service line +/- 0.3m

Depths derived from radio detection methods are measured to centre of pipe/cable

Depths from GPR and Trial holes are measured to top of pipe/cable

Depths derived from GPR are measured to top of feature; this may be affected by materials above the actual utility feature e.g. protective lining, sand, backfill etc.

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Prepared for:		The Royal Parks The Old Police House Hyde Park London W2 2JH					
Surveyed by: R. Baker, E. Swift, J. Kitroy, J. Wood Date: 28/10/2011							
Drawing Ref	Rev	Date	Description	Filename	Own By	Clkd By	Agreed By
1219_250	1	12/01/2011	Final Issue	1219_10	MSB	ESW	MSB
1219_250_1	1	12/01/2012	Area of now includes 10" pipe adjacent to Rotten Row	1219_1	MSB	ESW	MSB

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