

**Hounslow Small Sites**  
**Hartland Road – Site A**  
**PAS128 M3P Utility Mapping Survey**  
**Site Report**  
**Project No. 1716**

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## Table Of Contents

1.....	Title Page
2.....	Survey Details
3.....	Specification Notes
4.....	Existing Service Records
5.....	Field Equipment
6.....	Survey Results
7.....	Notes
8.....	Site Photographs & GPR Scans
9.....	Comments

**Utility Surveyor:** Piot Wegiel, Steve Taylor

**Topographical Surveyor:** Enri Filippi

**Date of Survey:** September 2019

**Drawings Number Issued to the Client:** 1716\_Hartland Road – Site A\_P.dwg

**Type of Survey:** Underground Utility Location & Mapping Survey.

**Survey Grid:** ORDNANCE SURVEY - Related to OS Active Network using GPS.

**Survey Datum:** ORDNANCE SURVEY - Levels related to OS Active Network using GPS.

**Accuracies:** Depth by Electromagnetic Detection: +/- 10% of Depth.

Plan position by Electromagnetic Detection: +/- 10% of Depth.

Depth by GPR: +/- 10% of depth (in Normal Ground Conditions)

Plan position by GPR: +/- 10% of Depth.

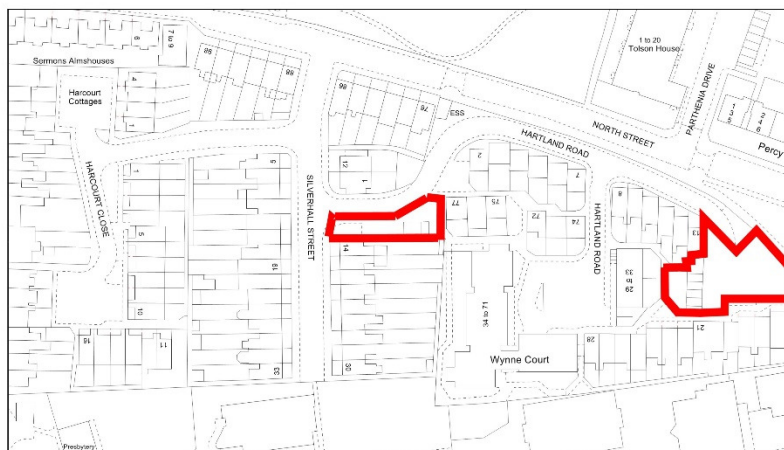
### Specification Notes:

1. All survey works carried out in the area defined by Arcadis Consulting (UK) Ltd.
2. All drawings must be read in conjunction with record information.
3. 40Seven provided all available statutory authority information, but cannot be guaranteed to be the latest information available.
4. All services have been surveyed robustly using a combination of Electromagnetic Detection & Ground Penetrating Radar (GPR). All utility positions were surveyed in using an Electronic Total Station.

## Defined Survey Extents – Site A

 London Borough  
of Hounslow

1:1000



### Existing Service Records Provided to Field Surveyor

Service	Provider	Remarks
BT	Open Reach	Map Reference (Centre): TQ1641175881
Gas	Cadent	Map Reference (Centre): 516396, 175901
	ESP Utilities Group	Job Reference: 16309961
		NOTE: Other existing statutory undertakers records were not available at the time of the survey or during the course of post processing.

### Field Equipment

Type	Make	Model	Company I.D No.	Operator(s) Initials
Electrolocation Instrument	RD	8100	PDL011 TXT011	PW/ST
Ground Penetrating Radar	Mala	HDR PRO	N/A	ST/PW
Electronic Total Station	Trimble	S6	Rob 39	EF
GPS Receiver	Trimble	R10	BAS027	EF

## Utility Location & Mapping Survey Results

Service	Comment Number	Successes / Problems Differences between survey & "Stats"
Electric	1	Routes located and traced by direct connection to several lampposts positioned throughout the survey extents.
	2	A full passive power sweep was performed utilizing radio frequency equipment.
	3	No statutory record information available at time of survey.
Telecom	1	Telecom cable inspection chambers located within survey area. Routes located and traced by direct connection to cables. Confirms statutory record information.
CATV	1	Inspection chamber identified in the footpath on Hartland Road. Routes located and traced by direct connection to cables.
	2	No statutory record information available at time of survey.
Water	1	Water inspection chamber identified in the footpath. Routes located although only partially in due to loss of signal.
	2	No statutory record information available at time of survey.
Gas	1	Gas not found within survey area.
	2	Routes have been transferred from records.
GPR Scans	1	The radar reflects changes in the electrical properties of materials in the sub-surface. The data prevents definition of unknown targets.
	2	A GPR survey has been carried out across the site where possible. Unable to utilize the radar in some areas due to parked vehicles.
	3	Several unknown targets detected within the survey extents although only partially in some areas due to losses of reflection. Unable to associate any fittings or features in the vicinity to help establish utility types.
	4	Poor and moderate quality image results encountered in some areas throughout the survey extents.
	5	Radar scans recorded to a depth of 1.3 metre.

**Site Notes:**

1. Survey was undertaken in the areas defined by Arcadis Consulting.
2. No access to buildings in survey extents.
3. No access to substations in survey extents.
4. Various utilities on site could not be proven or completed and the appropriate comments have been added to the drawing.
5. Services plotted outside survey extents should not be considered to be exhaustive.
6. Through non-intrusive surveying 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.

**Site Photos:**

**Photo 1**



**Description: General view of survey extents.**



**Photo 2**



**Description: General view of survey extents.**

**Photo 3**



**Description: General view of survey extents.**



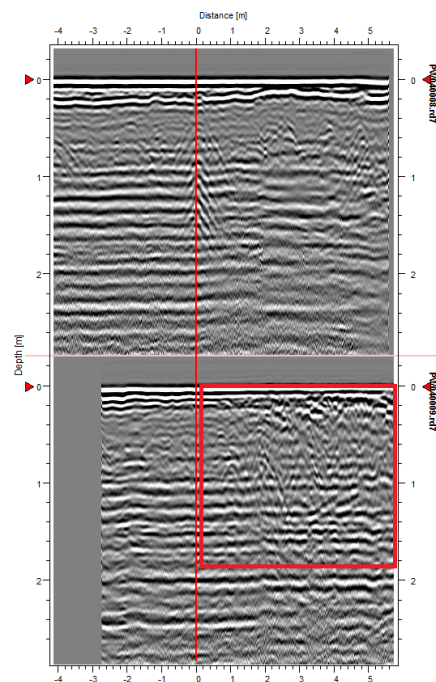
**Photo 4**



**Description: General view of survey extents.**

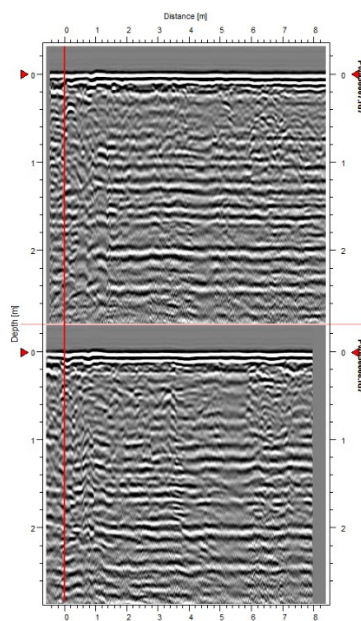
**GPR IMAGES:**

**GPR 1**



**Description: Poor quality Ground Penetrating Radar Scan 1.**

**GPR 2**



**Description: Ground Penetrating Radar Scan 2.**

**CAD Operators Comments:**

1. Survey work corresponds to Utility Surveyor's fieldwork.
2. All record information added where necessary.
3. Services shown outside the survey extents should not be considered to be exhaustive.

**QA Managers Comments:**

1. All procedures have been followed.
2. Checked that all topographical features have utilities connected, or if not are appropriately notated.
3. Checked all guided information has been transferred correctly where appropriate.
4. Services shown outside the survey extents should not be considered to be exhaustive.

**Project Managers Comments:**

1. All statutory authority records should be checked prior to commencing any work.
2. A full electromagnetic and GPR survey carried out across the site.
3. GPR works by emitting electromagnetic signals into the ground and analysing signal returns. The use of GPR is strongly dependent upon local soil properties. Depth of penetration is limited by the presence of clays or other highly conductive materials. There must be a significant electrical contrast between the target and the host materials.
4. Numerous unknown routes were detected by GPR, although it was not possible to decipher function. Future intrusive works (eg: trial pits) are recommended to gather further information.
5. It is recommended that statutory authority records are acquired and read in conjunction with this information, as no guarantee can be made for the completeness of this drawing.

