Site Investigation Report

Location
28 Park Village East
London
NW1 7PZ

Client: Crawford & Company
[redacted]
Compiled by: A Watkins
Site Visit Date: 25/06/2019

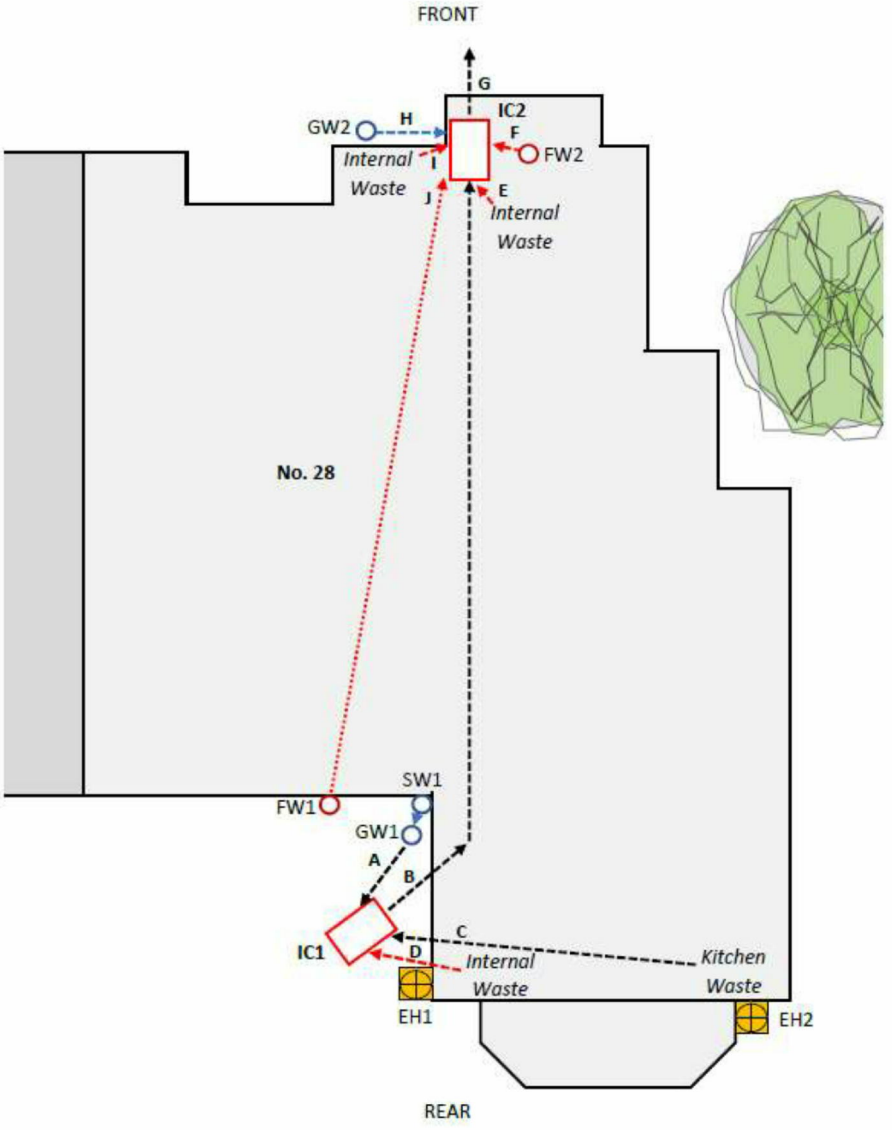

Figure 1 – Site Plan

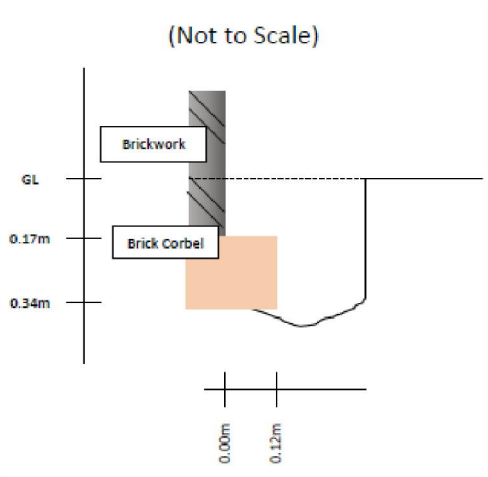

Figure 2 – TP/BH1 cross-section

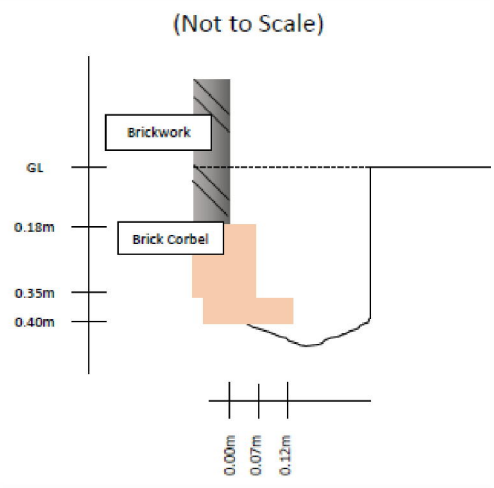

Figure 2 – TP/BH1 cross-section

Hand Auger Log

Project Name: 28 Park Village East	Client: Crawford's	Date:
Location: 28 Park Village East	Contractor: Optera	Drilling Equipment:
[redacted]	Crew Name: AW TC	

Borehole Number	Hole Type		Logged By	Scale	Page Number
EH1	HA		TC	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Legend	Stratum Description
					0.07		MADE GROUND: Concrete Slab.
					0.10		MADE GROUND: Concrete.
		0.35 - 0.70	RS		0.35		MADE GROUND: Dark grey gravelly clayey sand with occasional roots and occasional brick fragments.
		0.40 0.50	D	HVP=60	0.70		MADE GROUND: Firm brown slightly sandy slightly gravelly clay with rare roots and rare brick fragments.
		1.00 1.00	D	HVP=85			Firm brown occasionally mottled light grey slightly sandy CLAY.
		1.50 1.50	D	HVP=100			*Below 1.20m rare gypsum crystals and becoming stiff.*
		2.00 2.00	D	HVP=112			
		2.50 2.50	D	HVP=110			
		3.00 3.00	D	HVP=110	3.00		End of Borehole at 3.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Roots visible to 0.70m.

AGS

Hand Auger Log

Project Name: 28 Park Village East	Client: Crawford's	Date:
Location: 28 Park Village East	Contractor: Optera	Drilling Equipment:
[redacted]	Crew Name: AW TC	

Borehole Number	Hole Type		Logged By	Scale	Page Number
EH2	HA		TC	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Legend	Stratum Description
					0.10		MADE GROUND: Concrete Slab.
					0.15		MADE GROUND: Concrete.
		0.40 - 0.80	RS				MADE GROUND: Brown sandy clayey gravel with occasional roots and rare brick fragments.
					0.80		
		0.90 1.00	D	HVP=70			Firm brown occasionally mottled light grey slightly sandy CLAY with rare roots.
							Below 1.00m roots absent
		1.50 1.50	D	HVP=87			*Below 1.20m rare gypsum crystals and becoming stiff.*
		2.00 2.00	D	HVP=95			
		2.50 2.50	D	HVP=108			
		3.00 3.00	D	HVP=110	3.00		End of Borehole at 3.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks
Roots visible to 0.70m.

AGS

BS EN ISO 17892-12 : 2018

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

Borehole / Trial Pit	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification	Test Type	Sample Condition
EH1	0.40	1	D	Brown slightly sandy CLAY with rare fine to medium gravel.	30.6						-	
EH1	1.00	2	D	Brown CLAY with rare fine to medium gravel.	29.9	77	29	48	99	CV	2	1
EH1	1.50	3	D	Brown CLAY with rare fine gravel.	28.1						-	
EH1	2.00	4	D	Brown CLAY with rare fine gravel.	28.3	72	26	46	99	CV	2	1
EH1	2.50	5	D	Brown CLAY with rare fine gravel.	28.8						-	
EH1	3.00	6	D	Brown CLAY with rare fine gravel.	27.7	71	27	44	99	CV	2	1
EH2	0.90	1	D	Brown mottled grey CLAY with rare fine gravel.	28.8	76	28	48	99	CV	2	1
EH2	1.50	2	D	Brown CLAY with rare fine gravel.	29.7						-	
EH2	2.00	3	D	Brown CLAY with rare fine gravel.	27.2	72	27	45	99	CV	2	1
EH2	2.50	4	D	Brown CLAY with rare fine gravel.	28.4						-	
EH2	3.00	5	D	Brown CLAY with rare fine gravel.	30.3	72	26	46	99	CV	2	1

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The samples you sent in relation to the above have been examined. Their structures were referable as follows:

EH1, 0.35-0.70m	
2 no.	Examined root: similar in many ways to ACER (Maples, Sycamores) and also CARPINUS (Hornbeam). In their absence, another suggestion would be TILIA (Lime). Tentative - this was a very IMMATURE sample.
1 no.	Microscopic examination showed insufficient cells for recognition.
EH2, 0.40-0.80m	
2 no.	Examined root: TILIA (Lime).

CCTV Survey

RUN	**Start From :**	IC1	**Finish at :**	SW1	**Pipe Ø:**	100mm
A	**Invert Level (m):**	0.43	**Invert Level (m):**	N/A	**Material:**	Clay
COMBINED	**Condition grade:**	C	**Direction:**	Upstream	**Responsibility:**	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC1				
0.05	JDM	Joint Displaced (Medium)				
0.90	JDM	Joint Displaced (Medium)				
1.00	CN	Connection at 12 o'clock - GW1				
1.50	FN	Finish Node at SW1				
RUN	**Start From :**	IC1	**Finish at :**	IC2	**Pipe Ø:**	100mm
B	**Invert Level (m):**	0.59	**Invert Level (m):**	1.45	**Material:**	Clay
COMBINED	**Condition grade:**	A	**Direction:**	Downstream	**Responsibility:**	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC1				
1.50	LL	Line of drain deviates left 45°				
12.10	FN	Finish Node at IC2				
RUN	**Start From :**	IC1	**Finish at :**	Kitchen Waste	**Pipe Ø:**	100mm
C	**Invert Level (m):**	0.50	**Invert Level (m):**	N/A	**Material:**	Clay
GREY	**Condition grade:**	B	**Direction:**	Upstream	**Responsibility:**	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC1				
0.05	DEE	Attached Deposits (encrustation) Full Circumfrence				
4.00	WL	Water Level 10%				
5.00	FN	Finish Node a Kitchen Waste				
RUN	**Start From :**	IC1	**Finish at :**	Internal Waste	**Pipe Ø:**	100mm
D	**Invert Level (m):**	0.25	**Invert Level (m):**	N/A	**Material:**	Clay
FOUL	**Condition grade:**	B	**Direction:**	Upstream	**Responsibility:**	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC1				
0.20	DER	Settled Deposits (coarse) 30% - Concrete				
0.90	LU / FN	Line of drain deviates up 90° / Finish Node at Internal Waste				
RUN	**Start From :**	IC2	**Finish at :**	Internal Waste	**Pipe Ø:**	100mm
E	**Invert Level (m):**	0.90	**Invert Level (m):**	N/A	**Material:**	Clay
FOUL	**Condition grade:**	A	**Direction:**	Upstream	**Responsibility:**	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
	SA	Survey Abandoned - Unable to survey past bend				

RUN	Start From :	IC2	Finish at :	Internal Waste	Pipe Ø:	100mm
F	Invert Level (m):	1.30	Invert Level (m):	N/A	Material:	Clay
FOUL	Condition grade:	A	Direction:	Upstream	Responsibility:	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
0.20	FN	Finish Node a FW2				
RUN	Start From :	IC2	Finish at :	Outside Property	Pipe Ø:	100mm
G	Invert Level (m):	1.48	Invert Level (m):	N/A	Material:	Clay
FOUL	Condition grade:	A	Direction:	Downstream	Responsibility:	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
0.20	LD	Line of drain deviates down 90°				
0.50	SA	Survey Abandoned - Outside of Property				
RUN	Start From :	IC2	Finish at :	GW2	Pipe Ø:	100mm
H	Invert Level (m):	0.85	Invert Level (m):	N/A	Material:	Clay
STORM	Condition grade:	A	Direction:	Upstream	Responsibility:	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
	SA	Survey Abandoned - Unable to survey past bend				
RUN	Start From :	IC2	Finish at :	Internal Waste	Pipe Ø:	100mm
I	Invert Level (m):	0.35	Invert Level (m):	N/A	Material:	Clay
FOUL	Condition grade:	A	Direction:	Upstream	Responsibility:	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
	SA	Survey Abandoned - Unable to survey past bend				
RUN	Start From :	IC2	Finish at :	Blocked	Pipe Ø:	100mm
J	Invert Level (m):	1.35	Invert Level (m):	N/A	Material:	Clay
FOUL	Condition grade:	B	Direction:	Upstream	Responsibility:	Home Owner
Distance	*Code*	*Remarks*				
0.00	SN	Start Node from IC2				
1.50	DER	Settled Deposits (coarse) 80%				
2.30	SA	Survey Abandoned - Unable to settled deposits				

Summary

GENERAL:

Site works consisted of two trial-pits, each extended by hand-auger to form a borehole.

A CCTV survey of the drains within 3m of the area of concern was also attempted, for full details see drainage comments below.

BOREHOLES:

EH1 was formed using a hand-auger and taken to 3.00mbgl.

EH2 was formed using a hand-auger and taken to 3.00mbgl.

ROOTS:

Roots of live appearance were encountered in EH1 to a depth of approx. 0.70mbgl.

Roots of live appearance were encountered in EH1 to a depth of approx. 1.00mbgl.

WATER STRIKES:

No water strikes were encountered, and the hole was open and dry on completion.

DRAINAGE:

Both inspection chambers were in good working condition with no sign of any defects. The runs to the rear of the property had multiple minor defects with medium displacements within Run A and settled deposits with Run D.

The runs with IC2 was greatly restricted due to the angle of the pipes entering the chamber. By testing the internal toilets, it was possible to determine the approximate source for the drains unexamined.

An additional storm water pipe from the balcony above IC2, linked above ground to GW2.

Run J was fully blocked by coarse settled deposits and is inferred to link to FW1 which was unable to be accessed at ground level.

PHOTOGRAPHS:

Photo 1 – Rear elevation of property

Photo 2 – EH1 Foundation Pit

Photo 3 – EH2 Foundation Pit

Photo 4 – IC1

Photo 5 – IC2