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Report No: 5527/R1
Rev A October 2012

PROPOSED FACTORY
PP PLASMA LIMITED,
ASHTON OLD ROAD, MANCHESTER

FLOOD RISK ASSESSMENT

SEPTEMBER 2012

Prepared By: **John E Lees B.Sc., C.Eng., M.I.C.E., M.C.I.W.E.M.**

Client:

PP Plasma Ltd
Vere Street
Weaste
Salford
Manchester
M50 2GQ

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PROJECT QUALITY CONTROL DATA SHEET

Site Name:	Proposed Factory, PP Plasma Limited, Ashton Old Road, Manchester
Report Title:	Flood Risk Assessment
Report Number:	5527/R1

Revision	Date	Status
-	September 2012	For Approval
A	October 2012	For Approval

Client: PP Plasma Limited
Vere Street
Weaste
Salford
Manchester
M50 2GQ

Client Contact: Peter McCabe

Prepared By: John E Lees B.Sc., C.Eng., M.I.C.E., M.C.I.W.E.M.

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Lees Roxburgh Drg. No. 5527/01-01 Rev A

1.0 INTRODUCTION

1.1 Lees Roxburgh have been instructed by Bradshaw Gass and Hope on behalf of PP Plasma Limited to carry out a Flood Risk Assessment (FRA) for the proposed redevelopment of land for a new factory at Ashton Old Road, Manchester.

1.2 This report has been prepared to accompany a detailed planning application.

1.3 The site lies within an area designated on EA Flood mapping as Flood Risk Zone 1 and therefore comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (< 0.1%).

1.4 *The National Planning Policy Framework (NPPF)* and the accompanying *Technical Guidance to the National Planning Policy Framework* have recently superseded *Planning Policy Statement 25 (PPS25): Development and Flood Risk.*

In accordance with the NPPF at over 1 hectare in area the site is required to be the subject of an FRA.

1.5 In accordance with the NPPF, developers are required to provide an assessment which addresses the following;

- The potential for the proposed development to be affected by flooding either from the development proposal or external sources.
- The potential for the proposed development to increase the flood risk elsewhere.
- That mitigation measures introduced to deal with any risks identified can be successfully managed.
- That the site can be developed and occupied safely.

The NPPF indicates that an assessment of flood risk should be proportionate to the risk and appropriate to the scale, nature and location of the development. This report reflects the requirements of the NPPF in this regard.

2.0 SITE DETAILS

2.1 Location

2.1.1 The site is centred on National Grid references SJ 8797SW and is approximately 1.29 hectares in area. **(Appendix 1)**.

2.1.2 The site is located in the Ardwick area of Manchester, some 3km to the east of the city centre.

2.2 Surrounding Area

2.2.1 The site is situated within an area of mixed industrial, commercial and residential development. The area has seen significant regeneration over the past decade consistent with its location close to Manchester City Centre on a major arterial route out of Manchester.

To the north, the site fronts onto the A635, Ashton Old Road, the main route from Manchester to Ashton-under-Lyne. Pottery Lane forms the east boundary of the site.

A large commercial premises lies immediately to the west with Rolls Royce to the opposite side of Pottery Lane to the east. To the north of Rolls Royce fronting onto Ashton Old Road are various smaller commercial premises.

To the rear of the site is a Network Rail Operating Centre with a railway line and Ashbury Station beyond.

There are residential apartments to the opposite side of Ashton Old Road.

2.2.2 Ashton Old Road and Pottery Lane, both dual carriageways, form a major signalised junction immediately to the north east corner of the site.

2.2.3 Pottery Lane passes under the main railway line at the rail station some 100m beyond the southern site boundary.

2.3 The Site

2.3.1 The site is currently clear of development and comprises rough ground with scrubby vegetation with areas of some hard surfacing.

Boundaries to the site are defined by Pottery Lane, Ashton Old Road and the boundary with the premises to the west but that to the south west corner and along the south boundary is currently not defined.

2.3.2 The site was formerly occupied by a goods depot with housing in the north east corner.

2.4 Access and Egress

2.4.1 Access to the site is currently achieved via Kay Street and Wolverton Street to the rear from which access to the Rail Operating Centre is also achieved.

2.4.2 It is proposed that the new factory will be similarly served.

2.5 Levels

2.5.1 The site and the surrounding area are substantially flat.

2.5.2 Reference should be made to the topographical survey **(Appendix 2)** but levels can be summarised as follows;

- North west corner… 54.5m AOD
- North east corner… 55m AOD
- South west corner… 54.2m AOD
- South east corner… 54.4m AOD

2.6 Existing Drainage

2.6.1 There are no watercourses within the vicinity of the site.

2.6.2 Manhole covers within the surrounding roads provide evidence of extensive public systems and these are referred to under Section 3.3.2.

2.6.3 Reference is also made to the survey which identifies manholes and gullies.

2.7 Development Proposals

2.7.1 The development proposals comprise a factory building with offices and associated access, parking and turning provision for operational purposes **(Appendix 4).**

3.0 FLOOD RISK

3.1 Environment Agency Flood Map

3.1.1 Reference to the Environment Agency Flood Map **(Figure. 1)** indicates that the existing site is situated within a Flood Zone 1 Area of flood risk. This is land defined within the NPPF as land assessed as having a less than 1 in 1000 annual probability of flooding (<0.1% in any year). All uses of land are appropriate in this zone.

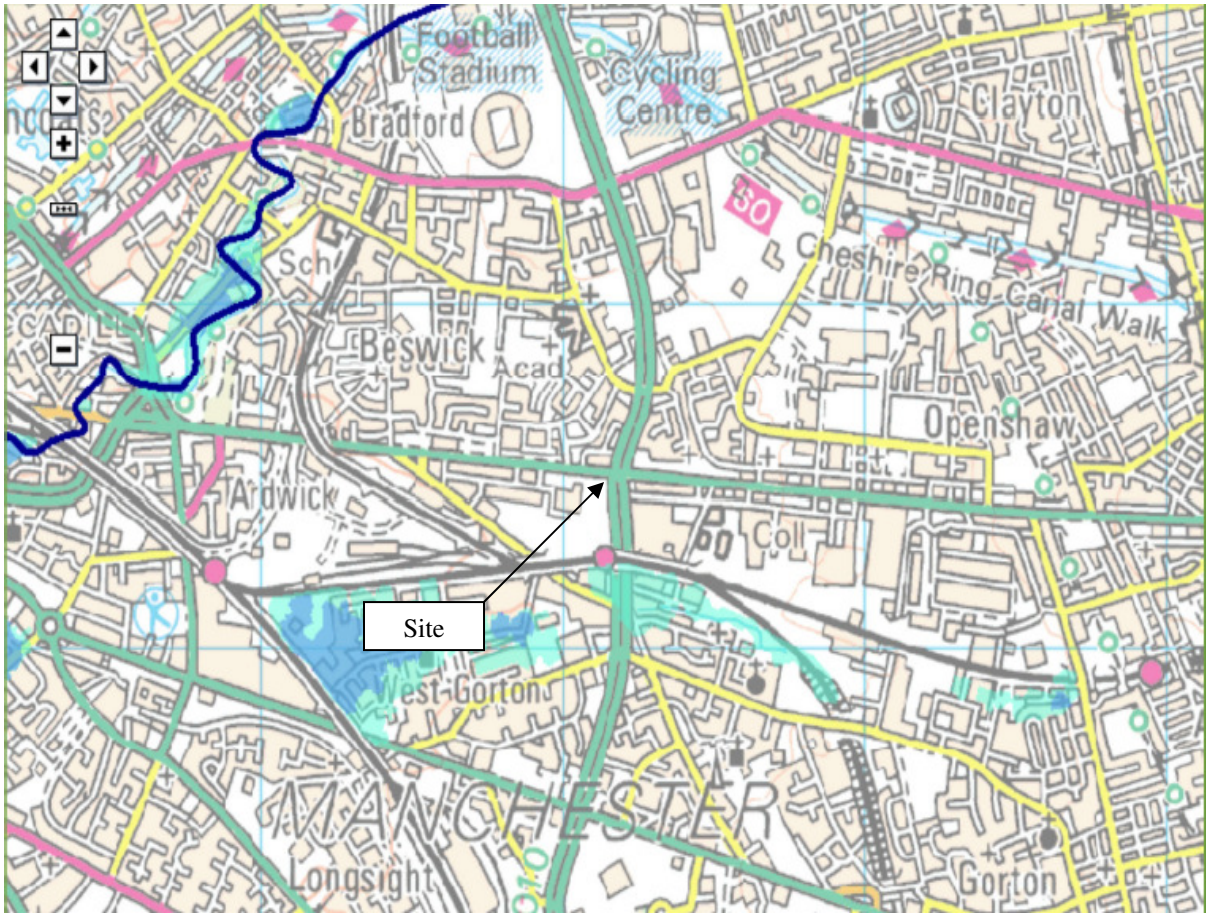


Figure 1: Environment Agency Flood Mapping

3.2 Sequential and Exception Tests

3.2.1 The proposed development is situated within a Flood Zone 1 Risk Area. On this basis, the Sequential and Exception Tests all as described in the NPPF are not applicable.

3.3 Sources of Flood Risk

3.3.1 Local Watercourse Systems and Water Bodies

3.3.1.1 There are no watercourse systems or water bodies in the area of the site.

3.3.2 Existing Sewers and Drainage

3.3.2.1 Copies of United Utilities public sewer records have been obtained and identify the presence of adopted drainage infrastructure in the area of the site. These records have been incorporated in **Appendix 3A.**

3.3.2.2 Reference to the public sewer records indicates the following;

- 600mm dia combined sewer system in Ashton Old Road.
- 750mm dia combined system to the opposite side of Pottery Lane.
- Abandoned system within the site.
- 300mm dia connection from the site into the combined sewer in Pottery Lane.

  The depth of this system within the site at MH1406 is recorded as 3m.

Consultations with United Utilities have not identified any flooding issues associated with the existing public sewers described above **(Appendix 3B).**

3.3.3 **Land Drainage and Groundwater**

3.3.3.1 Given the nature of the site and development proposed, it is considered that land drainage and groundwater issues will not present a risk of flooding to the proposed development.

3.3.4 **Comment**

3.3.4.1 On the basis of the assessment of the potential sources of flood risk described above, it is concluded that the risk of flooding to be considered can be confined to;

- Development Drainage Proposals

4.0 SURFACE WATER RUNOFF

4.1 Requirements for Surface Water Drainage of the Site

4.1.1 The NPPF recommends that surface water generated by the development site, should, as far as is practicable, be managed in a sustainable manner to mimic the surface water flows arising from the site prior to the proposed development.

4.1.2 Proposals should ensure that volumes and peak flow rates of surface water leaving the developed site are no greater than those prior to development, reducing surface water run off where possible and taking climate change into consideration.

4.2 Site Area

4.2.1 The area proposed for development comprises 1.29 hectares.

4.3 Existing Site Run Off

4.3.1 Whilst the site is now clear of development, it was formerly occupied by a goods depot and housing and therefore substantially covered in impermeable area.

Following demolition, areas of hardcore remain.

A predevelopment impermeable area of 40% has therefore been assessed.

4.3.2 On this basis, an existing 1 in 2 year runoff rate has been assessed as 72 litres/sec.

4.4 Surface Water Run Off from the Developed Site

4.4.1 The proposed scheme is incorporated in **Appendix 4.** The proposed impermeable area associated with the development proposal is over double that predevelopment.

4.4.2 On this basis, it is proposed that surface water flows generated by the development will be limited to those predevelopment as set out in 4.3.2 above.

4.5 Comment

4.5.1 Ground conditions are likely to preclude a ground percolation based drainage solution.

4.5.2 The only available positive outfall point for surface water (and foul) is the combined sewer system which specifically serves the site.

4.5.3 It is therefore proposed to connect the surface water drainage system direct into this sewer system, thus capturing and controlling surface water discharge from the development.

The new drainage system will remain private.

5.0 FLOOD MITIGATION MEASURES

5.1 Consultations with United Utilities have confirmed that the site has the right of connection to the public sewer without any restrictions on the quantity of flow for both foul and surface water.

However, it is proposed that flows from the development will mimic those predevelopment with runoff rates restricted to predevelopment rates.

Some surface water attenuation will therefore be required in mitigation.

5.2 The drainage scheme will be designed to current Building Regulation Standards and will remain private.

5.3 The drainage strategy for the development has been prepared accordingly and is incorporated in **Appendix 4**.

6.0 CONCLUSIONS

6.1 The FRA has identified that the site lies in an area of Zone 1 Flood Risk and concluded that the risk of flooding to the development arising from external sources can be discounted.

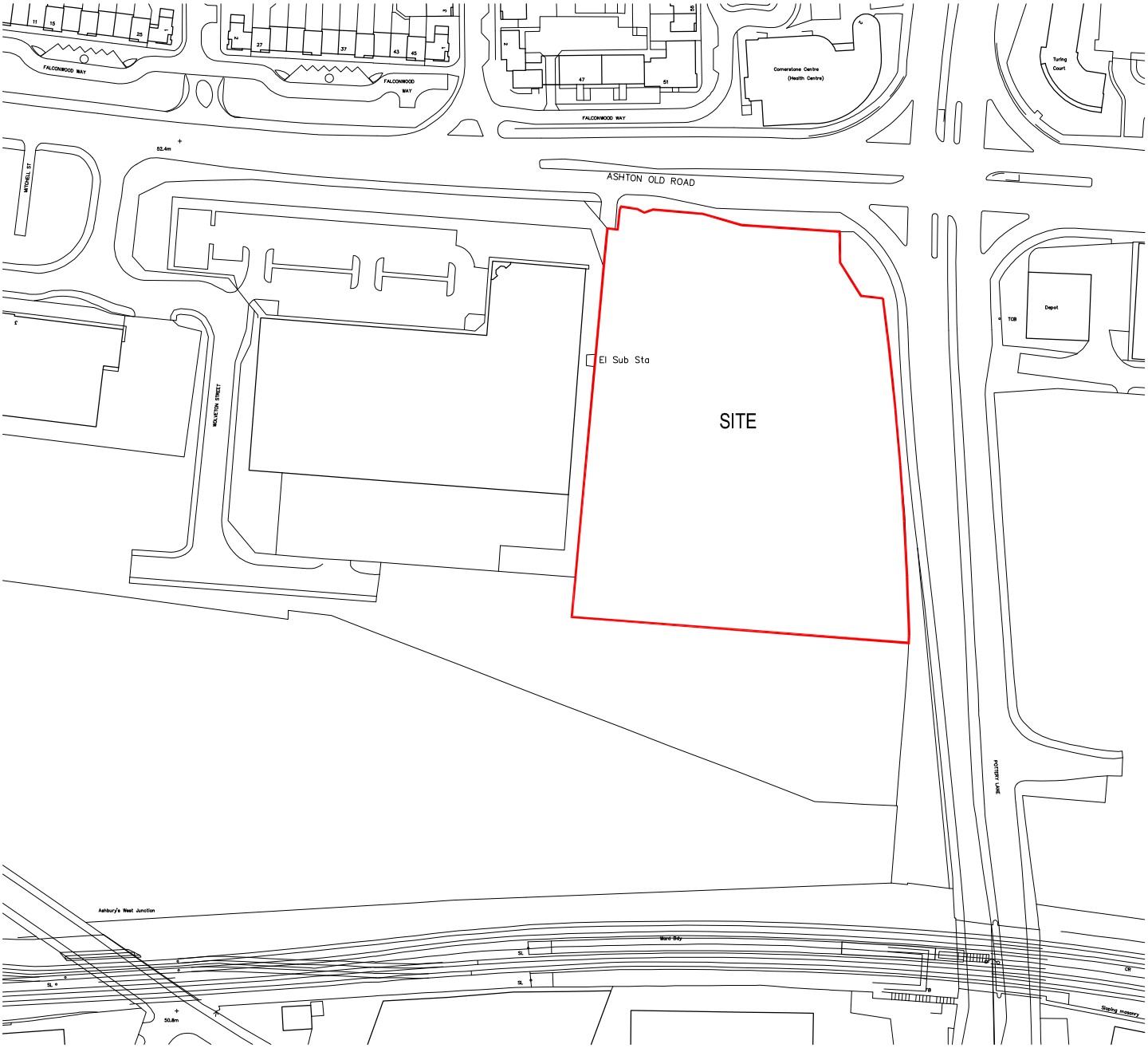
6.2 Flows from the proposed development will exceed those predevelopment and on this basis some mitigation measures in the form of surface water attenuation will be required.

The drainage will be designed to current Building Regulation standards and responsibility for the drainage system onsite will remain with the factory owner.

6.3 It is concluded that this FRA has demonstrated in accordance with the NPPF that the development is not at risk of flooding from external sources, will not increase flood risk associated with the development and its environment and is therefore appropriate.

APPENDIX 1

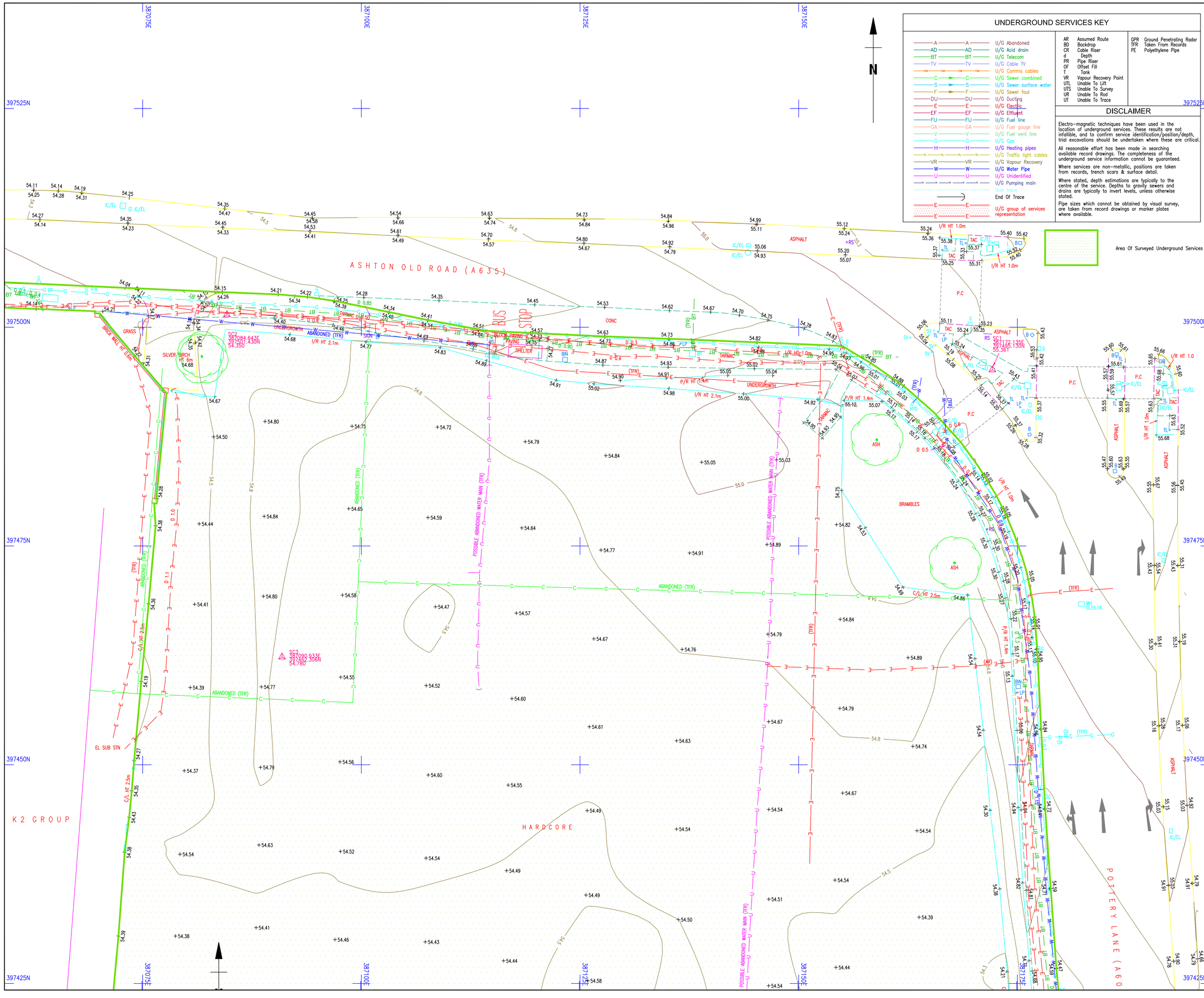
SITE LOCATION PLAN



client PP PLASMA		project NEW FACTORY	A4
Bradshaw Gass & Hope LLP Architects Consulting Engineers Quantity Surveyors 19 Silverwell Street Bolton BL1 1PR T: 01204 525321 F: 01204 525488 email@bghbolton.co.uk	scale 1:2000	drawing SITE LOCATION PLAN	RIBA
		drawn JEP / date 02.08.12	
	drawing no 1941.04.201	revision / appd.	
		dept. ARCHITECTURAL	
file path			

APPENDIX 2

TOPOGRAPHICAL SURVEY



UNDERGROUND SERVICES KEY

A	U/G Abandoned	
AD	U/G Acid drain	
BT	U/G Telecom	
TV	U/G Cable TV	
	U/G Comms cables	
C	U/G Sewer combined	
S	U/G Sewer surface water	
F	U/G Sewer foul	
DU	U/G Ducting	
E	U/G Electric	
EF	U/G Effluent	
FU	U/G Fuel line	
GA	U/G Fuel gauge line	
V	U/G Fuel vent line	
G	U/G Gas	
H	U/G Heating pipes	
TL	U/G Traffic light cables	
VR	U/G Vapour Recovery	
W	U/G Water Pipe	
U	U/G Unidentified	
	U/G Pumping main	
	Scar trace	
	End Of Trace	
E	U/G group of services representation	

AR	Assumed Route	GPR	Ground Penetrating Radar
BD	Backdrop	TFR	Taken From Records
CR	Cable Riser	PE	Polyethylene Pipe
d	Depth		
PR	Pipe Riser		
OF	Offset Fill		
T	Tank		
VR	Vapour Recovery Point		
UTL	Unable To Lift		
UTS	Unable To Survey		
UR	Unable To Rod		
UT	Unable To Trace		

DISCLAIMER

Electro-magnetic techniques have been used in the location of underground services. These results are not infallible, and to confirm service identification/position/depth, trial excavations should be undertaken where these are critical.

All reasonable effort has been made in searching available record drawings. The completeness of the underground service information cannot be guaranteed.

Where services are non-metallic, positions are taken from records, trench scars & surface detail.

Where stated, depth estimations are typically to the centre of the service. Depths to gravity sewers and drains are typically to invert levels, unless otherwise stated.

Pipe sizes which cannot be obtained by visual survey, are taken from record drawings or marker plates where available.

Area Of Surveyed Underground Services

Survey Notes

Grid: Local plane metric related to National at SC1.

Levels: Related to OSGM02 GPS Datum.

Notes

Topographical Survey Legend

BUILDINGS AND WALLS

Building
Building Open Sided
Ruin (RUIN)
Passage
Wall with Height (Wall Ht1.3m)
Retaining Wall (R/W)

FENCE STYLES AND DESCRIPTIONS

Close Boarded	C/B
Corrugated Iron	C/I
Concrete Panel	C/P
Chainlink	C/L
Handrail	H/R
Interwoven	IWN
Iron Railings	I/R
Lattice	L/F
Miscellaneous	Misc
Paling	PAL
Post & Chain	P/C
Post & Rail	P/R
Post & Wire	P/W
Post & Barbed Wire	B/W
Wire mesh	W/M
Stile	
Gate	
Fence linestyle	

ROADS

Kerbs
Edge of Surfacing
Pedestrian Crossing (PC)
Track (Track)
Footpath (FP)

STREET FURNITURE

Bellaha Beacon	BB
Bus Stop	BS
Bollard	B
Cats Eye	CE
Coal Chute	CC
Closed Circuit TV	CCTV
Drain	DR
Electricity Pole	EP
Flood Light	FL
Flag Staff	FS
Lamp Post	LP
Letter Box	LB
Name Plate (street)	NP
Mooring Ring	MR
Mile Post or Mooring Post	MP
Service Marker	MK
Mile Stone	MS
Post	P
Parking Meter	PM
Reflector Post	RP
Rodding Eye	RE
Road Sign	RS
Speed Camera	S/CAM
Information Sign	SIGN
Stay	SY
Traffic Light	TL
Telegraph Pole	TP
Traffic Light Push Button Post	TLP
Traffic Light Control	TLC/P
Control Box	C/BOX
British Telecom Box	BT BOX
Electricity Box	EL BOX
Gas Box	GAS BOX

INSPECTION CHAMBERS AND PIPES

Inspection Cover	IC
Inspection Cover (Elec)	IC/EL
Manhole	MH
British Telecom Cover	BT
Inspection Cover (Comms)	IC/COM
Cable TV	CATV
Inspection Cover Traffic Signals	IC/TL
Gully	G
Kerb Outlet	KO
Vent. Pipe	VP
Down Pipe	DP
Rain Water Pipe	RWP
Soil Pipe	SVP
Gas Pipe	G-PIPE
Unable to lift cover	UTL
Stop Tap	ST
Stop Valve	SV
Lamphole	LH
Hydrant	HYD
Earth Rod	ER
Gas Valve	GV
Water Meter	WM
Washout	WO
Rodding Eye	RE

GENERAL INFORMATION

Petrol Pump	PP
Basement Light	BL
Footbridge	FB
Dish Type Channel	
Slot Type Channel	
Grate Type Channel	
Tactile Paving	TAC
Crash Barrier	C/BR
Column	COL
Stanchion	STAN
Car Vacuum	VAC
Offset Fill	OF
Air Valve	AV
Trough	TR
Chimney	CHY
Telephone Call Box	TCB

OVERHEAD FEATURES

Electricity Pylon	EPYLON
Electricity	ETL
Telephone	TTL

WATER FEATURES

Canal	Canal
Stream	Stream
Ditch	Ditch
Weir	Weir
Culvert	Culvert
Grip (Land Drain)	
Spring	SPR

RELIEF AND VEGETATION

Hedge
Edge of wood/Bushes
Stump (STUMP)
Individual Tree
Slopes with Height Greater than 1m
Cliff Face
Marsh
Reeds

LEVEL AND HEIGHT INFORMATION

Standard Spot Height	+ 123.45
Precision Spot Height	+ 123.456
Bed Level	+ BL23.92
Water Level	+ WL24.92
Soffit Level	+ SL25.92
Threshold Level	+ TH26.98
Cover Level	+ CL26.45
Invert Level	+ IL25.15
Pipe Soffit Level	+ PSL5.00
Floor Level	+ FL6.00
Finished Floor Level	+ FFL6.00
Springing Level	+ AL7.00
Eave Level	+ EL7.00
Ridge Level	+ RL9.00
Roof Hip Level	+ RHL8.50
Flat Roof Level	+ FRL7.00
Top of Canopy Level	+ TOP/C7.00
Underside of Canopy Level	+ SOF/C6.50
Window Sill Level	+ WSL8.00
Window Head Level	+ WHL9.00
Springing Level	+ SPL8.50
Arch Level	+ AL7.00
Cable Level	+ CVTB.55
Top of Wall Level	+ TWL10.00
Underside of Beam Level	+ UBL9.55
General Height	+ HTS.00

SURVEY INFORMATION SIGNS

Permanent Ground Marker
O.S. Trig Station
O.S. Bench Mark

GEOTECHNICAL INFORMATION

Borehole	BH
Trial Pit	TP
Monitor Pin	MON
Probe Hole	PH
Window Sample	WS

Rev.	Date	Description
A	11/09/12	Underground services added

MALCOLM HUGHES
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Chartered Land Surveyors
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www.malcolmhughes.co.uk
survey@mhls.co.uk

Accreditations: RICS, ICES, The Survey Association, PAS 128, Lloyd's Registered

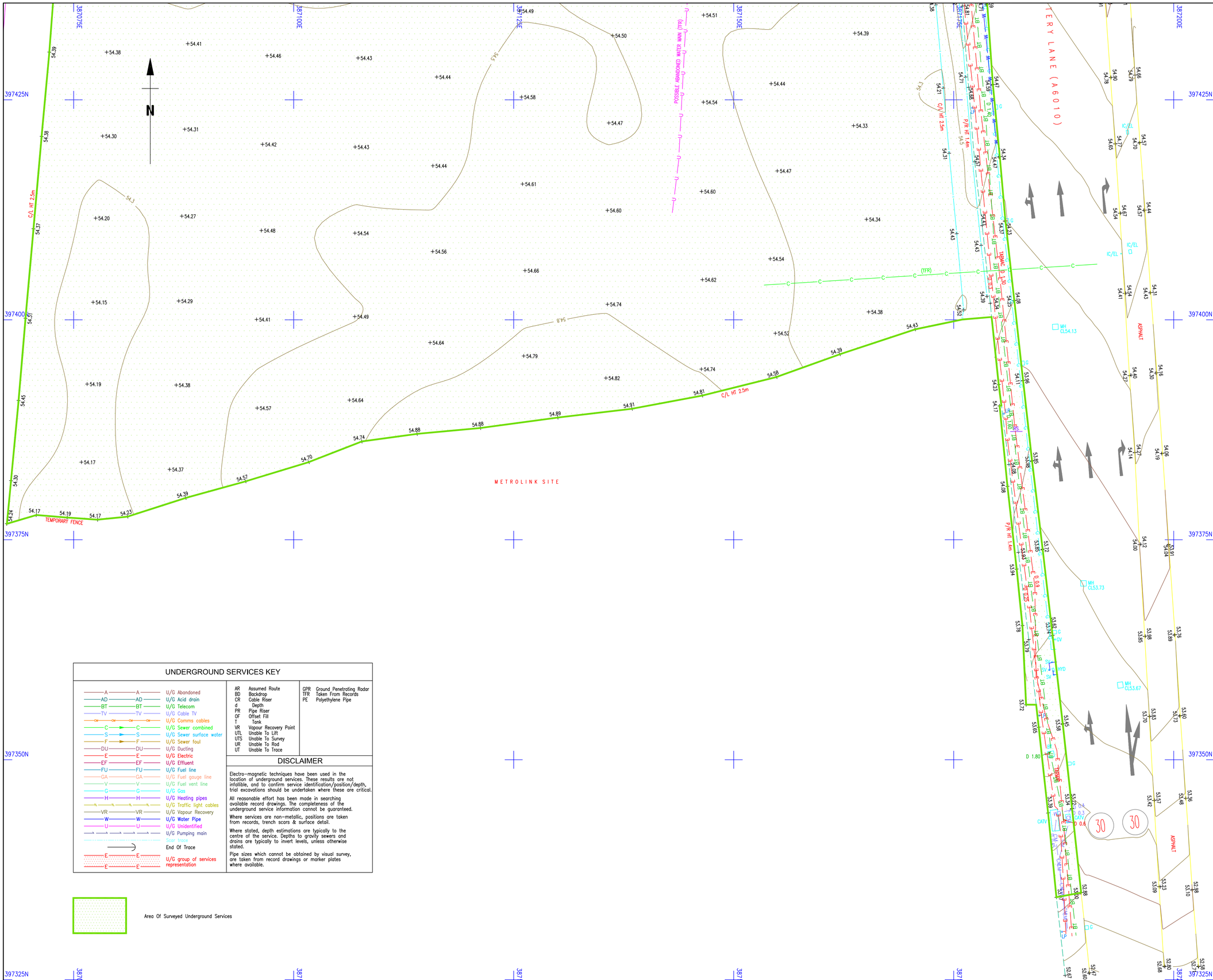
Client
BRADSHAW GASS AND HOPE LLP
19 SILVERWELL STREET,
BOLTON, BL1, 1PR

Project
PP PLASMA NEW FACTORY
ASHTON OLD ROAD
MANCHESTER

Drawing Title
TOPOGRAPHICAL SURVEY

Drawn By	C.C 29/08/12	Survey Date	August 2012
Checked by	M.E.R 29/08/12	Scale	1:200

Drawing No	Revision
14752-1	A



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Wire mesh	W/M
Stile	
Gate	
Fence linestyle	

ROADS

Kerbs
Edge of Surfacing
Pedestrian Crossing — PC
Track — Track
Footpath — FP

STREET FURNITURE

Bellisha Beacon	BB
Bus Stop	BS
Bollard	B
Cats Eye	CE
Coal Chute	CC
Closed Circuit TV	CCTV
Drain	DR
Electricity Pole	EP
Flood Light	FL
Flag Staff	FS
Lamp Post	LP
Letter Box	LB
Name Plate (street)	NP
Mooring Ring	MR
Mile Post or Mooring Post	MP
Service Marker	MK
Mile Stone	MS
Post	P
Parking Meter	PM
Reflector Post	RP
Rodding Eye	RE
Road Sign	RS
Speed Camera	S/CAM
Information Sign	SIGN
Stay	SY
Traffic Light	TL
Telegraph Pole	TP
Traffic Light Push Button Post	TLP
Traffic Light Control	TLC/P
Control Box	C/BOX
British Telecom Box	BT BOX
Electricity Box	EL BOX
Gas Box	GAS BOX

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Gas Pipe	G–PIPE
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Lamphole	LH
Hydrant	HYD
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Offset FB	OF
Air Valve	AV
Trough	TR
Chimney	CHY
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U/G Ducting	
U/G Electric	
U/G Effluent	
U/G Fuel line	
U/G Fuel gauge line	
U/G Fuel vent line	
U/G Gas	
U/G Heating pipes	
U/G Traffic light cables	
U/G Vapour Recovery	
U/G Water Pipe	
U/G Unidentified	
U/G Pumping main	
Scar trace	
End Of Trace	
U/G group of services representation	

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OF	Offset Fill		
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Rev.	Date	Description
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www.malcolmhughes.co.uk
survey@mhls.co.uk

Accreditations: RICS, chartered ices, THE SURVEY ASSOCIATION FS 14128, ISO 9001 REGISTERED, Link-up Registered

Client
BRADSHAW GASS AND HOPE LLP
19 SILVERWELL STREET,
BOLTON, BL1, 1PR

Project
PP PLASMA NEW FACTORY
ASHTON OLD ROAD
MANCHESTER

Drawing Title
TOPOGRAPHICAL SURVEY

Drawn By	C.C 29/08/12	Survey Date	August 2012
Checked by	M.E.R 29/08/12	Scale	1:200

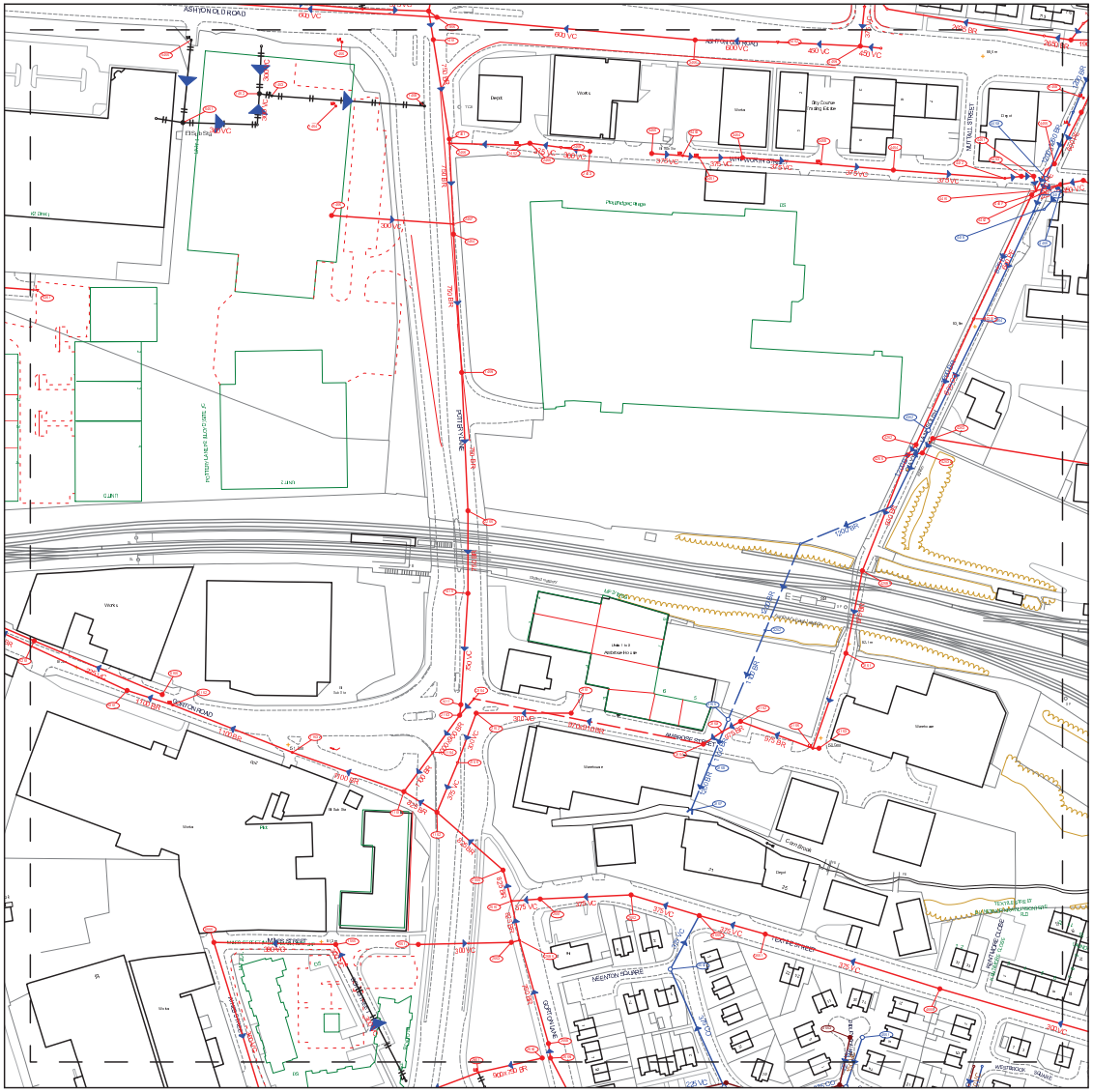
Drawing No: 14752-2
Revision: A

APPENDIX 3

UNITED UTILITIES

APPENDIX 3A

Public Sewer Records



OS Sheet No: SJ8797SW

Scale 1:1250 Date: 22-Aug-2012

Printed by: Pam Hardcastle

Refno	Cover	Func	Type	Invert	Size,x	Size,y	Shape	Matl	Grad	Length
0000	51.5	C	M	48.04	300		C	VC	194	95.21
0100	51.27	C	M	49.75	225		C	VC	88	67.23
0101	51.38	C	M	43.24	1100		C	BR	71	131.1
0102		C	L		1100		C	BR		23.09
0201	51.22	C	M	48.97	225		C	VC	115	38.08
0301		F	Q		225		C	VC		59.01
0400		C	L							
0401		C	M							
0402		C	G							
1000	51.54	C	M	48.92	300		C	VC	70	59.01
1001	51.79	C	M	48.43	300		C	VC	-64	45.01
1002		F	Q	51.64	300		C	VC	4	11.06
1101	50.54	C	M	44.2	1100		C	BR		57.25
1102	50.57	C	M	44.65	825		C	BR	59	19.87
1103		C	J		1100		C	BR		62.39
1104		C	Q	44.18	1100		C	BR	-767	23.6
1400		C	L							
1401		C	M		750		E	BR		48.77
1402	54.17	C	M							
1403		C	L							
1404		C	L							
1405		C	L							
1406	54.49	C	M	51.49	300		C	VC		59.03
1407		C	G							
1408		C	G							
1409		C	M	50.12	750		E	BR	186	67.07
1410		C	M		750		E	VC		54
1411		C	M	46.65	750		C	VC	2	5.15
2000	51.01	C	M	45.01	825		C	BR	118	42.52
2001	51.1	C	M	45.29	375		C	VC		14.04
2002	51.36	C	M	45.49	375		C	VC	294	44.05
2003	51.76	C	M	48.42	300		C	VC		4.12
2004	53.18	C	M	47.86	900	750	E	BR		31.78
2005	53.84	C	M	45.71	750		C	BR		51.82
2009	53.2	C	M		830	780	E	BR		7.07
2010		C	J		825		C	BR		15.52
2050		C	J		825		C	BR		19.42
2101	51.19	C	M		300		C	VC		46
2102	51.79	C	M	48.69	300		C	VC	171	25.63
2103	51.45	C	M	44.15	1000	900	E	BR	-740	22.2
2104		C	J		1000	900	E	BR		10.63
2106		C	Q	48.54	375		C	VC	173	36
2300	51.38	C	M	49.75	750		E	BR	125	40
2400	54.85	C	M	51.72	375		C	VC		5.1
2401	54.42	C	M	50.7	750		E	BR		2
2402		C	L		375			VC		34.01
2403	55.13	C	M	52.12	300		C	VC	74	14.14
2404	53.93	C	M	50.48	750		E	BR	186	67.12
2405		C	Q	51.83	375		C	VC	76	15.13
2406		C	J		750		E	BR		39.17
2407		C	J		750		E	BR		4.67
3000	51.89	C	M	45.74	375		C	VC	144	34.48
3001	52.66	C	M	459	375		C	VC	222	33.34
3002		S	M		375		C	VC		39.53
3003	55.17	F	M	53.16	150		C	VC		23.54
3100	50.79	S	M	49.39	1100		C	BR	38	23.77
3101	51.62	C	M		975			BR		48.7
3102	51.8	C	M	45.06	975		C	BR		10.3
3103	50.81	C	M	49.1	300		C	VC	7	3
3104	50.76	C	M	45.05	970	910	B	BR		113.16
3105		S	Q	48.76	1200		C	BR	38	23.77
3106		C	L	48.66	975		C	BR	10	37.34
3107		S	F							
3108		C	Q	45.06	970	910	B	BR		108.2 10.82
3201		S	G		1200		C	BR		45.31
3202		S	Q		1100		C	BR		46.62
3400	55.39	C	M	52.47	375		C	VC	-167	15.03
3401		C	L		375		C	VC		21
3402		C	Q	47.85	600		C	VC	133	40.01
3403		C	L	52.56	375		C	VC		8.06
3404	55.5	C	M	52.49	375		C	VC	141	36.12
3405		C	L	52.22	375		C	VC	153	35.13
3406	55.32	C	M	47.53	600		C	VC		125.48
4000	54.2	C	M	46.56	375		C	VC	145	88.57
4001	55.14	S	M	53.43	225		C	VC	90	25.3
4200	52.68	C	M	46.53	930		C	BR		60.17
4201		S	G		1200		C	BR		47.54
4302	537	C	M	46.53	900		C	BR	-320	6.4
4303	52.84	C	M	46.64	1200		C	CO		7.07
4305		C	M		975		C	BR		40.79
4301		C	Q	48.3	600		C	CO	100	67.12
4302	538	S	M	49.21	1200		C	BR		41.15
4303	53.78	C	M	48.06	1200		C	CO	86	8.6
4304		S	Q		1200		C	BR		59.03
4400	54.58	C	M	49.16	600		C	PE		5
4401	54.56	C	M	51.5	225		C	CI		7.07
4402	546	C	M	51.08	225		C	VC		12.37
4403	54.47	C	M	51.52	375		C	VC	600	6
4404	55.05	C	M	51.95	375		C	VC		54.15
4405		C	G		2625		C	BR		77.1
4406		S	L							12.04
4407	54.47	C	M	48.93	600		C	PE	105	66.21
4408	546	S	M	50.71	1200	1260	B	BR		8.54
4409	55.64	C	M	48.14	450		C	VC	138	40.05
4410		C	J		600		C	PE		3.83
4411		C	G		600		C	PE		11.18
4412		C	J		375		C	VC		8.06
4413		S	G		825			BR		5.1
4414		C	G		450		C	VC		10.05
4415		S	J		825		C	BR		58.6
4416		S	Q		825		C	BR		8.54

WASTE WATER SYMBOLOGY

MANHOLE
FOUL SURFACE COMBINED DUAL
SIDE ENTRY MANHOLE
PRIVATE SEWER
ABANDONED SEWER
SITE TERMINATION
T-JUNCTION (SADDLE)
AIR VALVE
LAMP HOLE
CASCADE
OIL INTERCEPTOR
CONTROL KIOSK
PENSTOCK
CONTROL VALVE
RODDING EYE
GULLEY
SOAKAWAY
HATCHBOX
TUMBLING BAY
HEADWALL
UNSPECIFIED
HYDROBRAKE
VALVE
INLET
WASHOUT
GHOST NODE (Inc. GN - Rising Main & GN - Dual Function)
EXPEDIENCY NODE (CHANGE OF CHARACTERISTIC)
CATCHPIT
SIDE ENTRY CATCHPIT
CHAMBER
SIDE ENTRY CHAMBER
DROPSHAFT
SIDE ENTRY DROPSHAFT
SHEET EDGE
VENT COLUMN
SEWER OVERFLOW
DISCHARGE POINT (OUTFALL)
TANK
WASTE WATER TREATMENT WORKS
PUMPING STATION
EJECTOR STATION
SLUDGE PUMPING STATION

Note - ALL flow direction arrows are BLUE - colour not significant

NODE TABLE ABBREVIATIONS

MANHOLE FUNCTION

F Foul
S Surface
C Combined
T Transition
O Overflow
U Unspecified

MANHOLE / NODE TYPE

M Manhole
J Junction
L Lamphole
H Hatchbox
R Rodding Eye
F Outfall
V Combined Sewer Overflow
P Pumping Station
S Soakaway
D Dual Function Manhole
W Treatment Works
Z Ghost In Rising Main
C Cascade
Y Gulley
E Ejector
O Oil Injector
I Inlet
B Hydrobrake
T Vent Column
X Valve
U Unspecified
Q Expediency Node
G Ghost (to allow pipe bends)

SEWER SHAPE

C Circular
E Egg
O Oval
F Flat Top
R Rectangular
S Square
T Trapezoidal
A Arch
B Barrel
H Horseshoe
U Unspecified

SEWER MATERIAL

AC Asbestos Cement
BR Brick
CI Cast Iron
SI Spun (Grey) Iron
CO Concrete
CS Concrete Segments (Bolted)
CS Concrete Segments (Unbolted)
CC Concrete Box Culvert
DI Ductile Iron
GR Glass Reinforced Concrete
GR Glass Reinforced Plastic
PS Plastic / Steel Composite
PV Polyvinyl Chloride
PE Polyethylene
RP Reinforced Plastic Matrix
ST Steel
VC Vitrified Clay (All Clayware)
PP Polypropylene
PF Pitch Fibre
MA Masonry - In Regular Courses
MA Masonry - Randomly Coursed
U Unspecified

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OS Sheet No: SJ8797SW
Scale 1:1250 Date: 22-Aug-2012
101 Nodes
Sheet 1 of 1

United Utilities
SEWER RECORDS

APPENDIX 3B

Email of 3rd September 2012

RE: Proposed Development at Ashton Old Road, Manchester 5527/5.1

Planning Liaison [Planning.Liaison@uuplc.co.uk]

Sent: 03 September 2012 14:38
To: Lees Roxburgh
Attachments: FRA Ashton Old Roaddoc.doc (37 KB)

John,

Please find attached FRA for Ashton Old Road

Regards

Neil

From: Lees Roxburgh [mailto:office@leesroxburgh.co.uk]
Sent: 29 August 2012 10:13
To: Planning Liaison
Subject: Proposed Development at Ashton Old Road, Manchester 5527/5.1

We are undertaking an FRA on the site shown attached and have obtained copies of your public sewer records.

Your enquiry proforma is duly attached completed as far as we are able.

There are no public surface water sewers or watercourse in the vicinity of the site, so connection is proposed for both foul and surface water into the combined system.

In this regard we note an existing connection into the site.

The site was previously occupied by development (again reference made to existing connection) so the proposed impermeable area will not exceed that previously served by the system.

We therefore propose connection of foul and unrestricted surface water flows into your combined system via the existing connection.

Your prompt response to this enquiry would be very much appreciated.

Regards,

John Lees

LEES ROXBURGH Ltd, The Genesis Centre, Science Park South, Birchwood, Warrington, WA3 7BH
Tel: 01925 812 898, Fax: 01925 838 864, Email: office@leesroxburgh.co.uk, Web Site: www.leesroxburgh.co.uk

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Direct Line 01925 537336
Planning.liaison@uuplc.co.uk

John Lees
LEES ROXBURGH Ltd,
The Genesis Centre, Science Park South
Birchwood, Warrington, WA3 7BH

Your ref
Our ref
Date 3/9/12

Dear Mr Lees

Location: Ashton Old Road- Manchester
Proposal: Flood Risk Assessment

Thank you for your recent FRA consultation.

Further to your enquiry, I can advise that we have no record of public sewer flooding of properties in this vicinity as a result of overloaded sewers. i.e. no properties on the 'at risk' register as compiled for our Regulator.

Please note that United Utilities Water plc (UUW) can only record and check flooding events which are reported to us and we have to comply with our Regulators instructions on the qualification of flooding events to place on the 'at risk' register.

Also, this does not include any sewer flooding events caused by blockages or collapses which are the result of third party actions, natural events or other actions over which UUW has no control and not a facet of sewer capacity.

United Utilities offers a fully supported mapping service at a modest cost for our water mains and sewerage assets. This is a quality service, which is constantly updated by our Property Searches Department (0870 7510101) and you should contact them for more details of our utility assets. It is, however, the applicant's responsibility to demonstrate the exact relationship on site between any assets that may cross the site and any proposed development

When you reach the planning application stage we will consider the finer details of flow rates at that stage if you or the Local Authority consults us.

When you have planning permission and wish to arrange for a connection point to public sewer you should contact our Wastewater Connections telephone number 0845 602 0406. They will send you a Connections pack for your completion. When returned this will be considered by our local Wastewater Network Engineer and a suitable connection point determined.

Land drainage or subsoil drainage water must not be connected into the public sewer system directly or by way of private drainage pipes. It is the developer's responsibility to provide adequate land drainage without recourse to the use of the public sewer system.

UUW is not obliged to receive highway drainage from the proposed development into the public wastewater network.

You should/may not be aware of our recent change to charging non-household metered premises on the basis of surface and highway drainage connected to public sewer and I attach a link to a leaflet on this matter. This new charging scheme is a strong incentive to keep relatively clean surface water out of the public sewer, reducing foul flood risk, reducing pollution at storm sewer overflows and reducing the carbon footprint.

Yours sincerely

Neil O'Brien
Asset Protection

APPENDIX 3C

Email of 10th September 2012

RE: Proposed Development at Ashton Old Road, Manchester 5527/5.1

Planning Liaison [Planning.Liaison@uuplc.co.uk]

Sent: 10 September 2012 10:14

To: Lees Roxburgh

John,

Section 106 of the Water Industry Act gives you have the right to connect to the nearest sewer without any restriction on flow rates, for wastewater associated with buildings. If there are no planning conditions within your planning consent associated with the draining of the site, then you are entitled to discharge to the public sewer without any restrictions on the quantity of flow for both the foul and surface water from this development, as there is no highway drainage associated with this development.

Regards

Neil

From: Lees Roxburgh [mailto:office@leesroxburgh.co.uk]
Sent: 05 September 2012 09:52
To: Planning Liaison
Subject: RE: Proposed Development at Ashton Old Road, Manchester 5527/5.1

Neil

This is a standard response to a specific question as to where we propose to connect and on what basis...ref my email of 29.08.12.

Can I take it you have no objection to our proposal then?

John

LEES ROXBURGH Ltd, The Genesis Centre, Science Park South, Birchwood, Warrington, WA3 7BH
Tel: 01925 812 898, Fax: 01925 838 864, Email: office@leesroxburgh.co.uk, Web Site: www.leesroxburgh.co.uk

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To: Lees Roxburgh
Subject: RE: Proposed Development at Ashton Old Road, Manchester 5527/5.1

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Please find attached FRA for Ashton Old Road

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To: Planning Liaison
Subject: Proposed Development at Ashton Old Road, Manchester 5527/5.1

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Regards,

John Lees

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APPENDIX 4

SURFACE WATER DRAINAGE STRATEGY
Lees Roxburgh No. 5527/01-01 Rev A

IF IN DOUBT – ASK



Notes

KEY:-

- PUBLIC COMBINED SEWER
- PROPOSED SURFACE SYSTEM WATER CARRIER DRAIN
- PROPOSED FOUL AND SURFACE WATER COMBINED SYSTEM

Rev	REVISION	By	Date
A	DRAINAGE AMENDED TO LATEST ARCHITECTS PLAN	MG	30/10/12

PP PLASMA

NEW FACTORY
ASHTON OLD ROAD
MANCHESTER

SURFACE WATER DRAINAGE
STRATEGY FOR FRA PURPOSES

LEES ROXBURGH
Consulting Engineers

THE GENESIS CENTRE, SCIENCE PARK SOUTH,
BIRCHWOOD, WARRINGTON, CHESHIRE, WA3 7BH.
Tel: 01925 812898 Fax: 01925 838864

Job No.	Drawing No.	Revision.
5527	01–01	A

Scale	1:500 @ A2	Date	Sept 2012

Drawn By	Designed By	Checked By
MG	JEL	JEL

DRAWING FILE LOCATION–