

[illegible][illegible]

UNDERGROUND SERVICES LEGEND

FOUL/COMMINUTED WATER DRAINAGE: 100 MM (red arrow)
 SURFACE WATER DRAINAGE: 225 SW (blue arrow)
 LV ELECTRIC CABLES: (red zigzag line)
 HV ELECTRIC CABLES: (red line with cross-ticks)
 GAS: (green line with cross-ticks)
 TELEPHONE: (cyan line with cross-ticks)
 WATER: (blue line with cross-ticks)
 WATER SUPPLIED: (blue line with cross-ticks)
 CABLE TV: (magenta line with cross-ticks)
 CCTV: (cyan line with cross-ticks)
 GROUND PENETRATING RADAR: (red line with cross-ticks)
 END OF TRENCH: (red arrow pointing right)
 END OF TRENCH SCAR: (red arrow pointing left)

WHERE CHAMBER EXTENTS ARE SIGNIFICANTLY GREATER THAN THE COVER SIZE, THEIR APPROPRIATE EXTENTS ARE SHOWN INSIDE.

[illegible]

NOTES FOR UNDERGROUND SERVICES

I.A. combination of electromagnetic techniques & ground penetrating radar have been used as, appropriate, in the location of underground services and drains. The method is reliable and can be used in a wide range of circumstances. It is used for service identification, positions and particularly depths, where there are critical situations. It can be used to locate services in the ground and to produce plan and cross section drawings, the completeness of the underground services information cannot be guaranteed.

II.A. The cover level is available, depths to pipe inverts are shown that: 0.054
B. Depths of services at inspection chambers, where possible, are shown that: 0.054
C. The electrical conductivity are generally to the centre of the service and one shown that: 0.050

III.A number of details, where shown, shows that: 0.05
B. The service cannot be seen, where shown, are taken from record drawings/marker points where available.

IV. The service is shown, where shown, to be in close proximity to many cables.

V. Electric cable routes shown are assumed to be 15V unless otherwise indicated.

VI. Information taken from records is sufficed that: 0.04
B. The service is shown, where shown, to be in close proximity to many entry into chambers. Every effort has been made to correctly obtain this information, however, it is not a standard of the service and is not a guarantee of the service.

VI. To assist with clarity of representation, services and drains have been extended to show the full length of the service.

XII. There are some F.P.F. reflections are present to the shown on assumed fence service.

Coordinate Table				
				
STATION	DESCRIPTION	EASTING	NORTHING	LEVEL
C1	PN	561583.709	196230.732	58.100
C2	PKN	561678.483	196315.763	59.622
C3	PN	561712.403	195654.552	65.284
C4	PKN	561694.461	195577.323	65.242
C6	PEG	561590.847	195985.445	60.065
C7	PEG	562067.785	196111.149	61.283
PN = 1880' North PKN = 1875' North PKN = Permanent Ground Mark PN = Pumph Mark PN = Pipe Mark W = Water (used with PKN and PKN)				

NOTES	
LEVELLING	THE SURVEY LEVELS ARE BASED ON OS NEWLIN DATUM BY GPS USING OSGM15.
GRID	THE SURVEY IS ON A PLANE LOCAL GRID RELATED TO OS NATIONAL GRID BY GPS USING OGTN15. THE LOCAL GRID ORIGIN IS STN C1 461548.705E 194255.722N
DRAINAGE	INVERT LEVELS, PIPE SIZES AND PIPE CONNECTIONS HAVE BEEN SURVEYED BY VISUAL INSPECTION ONLY, AND THEREFORE THE

COMPLETE ACCURACY OF THE INFORMATION CANNOT BE GUARANTEED

Aworth

SURVEY CONSULTANTS

LRIQA Certified Official

Lorda House, Norfolk Way, Uckfield
East Sussex, TN22 1TP
Tel: 01825 768319

The Laradowne Building, 2 Landow Road
Croydon, CR8 2ER
Tel: 020 8263 6176

www.aworth.co.uk info@aworth.co.uk



Quality's Register
LRIQA
QUALITY ASSURANCE
CERTIFIED COMPANY



Linked In



THE SURVEY
ASSOCIATION
TOLL FREE

Drawing No	59521	Surveyed	7/10/2018
Sheet	14	Drawn	BFJ/BW/DG/P
Revision		Checked	JBW/TH
Scale	1:500 @ A0	Date	21/01/2020

Project

OFFICERS MEADOW
SHENFIELD
BRENTWOOD
ESSEX

Client

CROUDANCE HOMES LTD
THE SPIRELLA BUILDING
LINDSEY ROAD
LEITCHWORTH GARDEN CITY
HERTFORDSHIRE SG6 4ET

Croudace	
STRATEGIC	
SITE TITLE	
SITE TITLE	
GENERAL LAYOUT	
SCALE :	1/200
DATE :	DATE
DRAWN :	INITIALS
CHECKED :	
DRG.No. :	000/30

[illegible]

UNDERGROUND SERVICES LEGEND

- FOUL/COMBINED WATER DRAINAGE: 100 PW (Red line with arrow)
- SURFACE WATER DRAINAGE: 225 SW (Blue line with arrow)
- LV ELECTRIC CABLES: (Red zigzag line)
- HV ELECTRIC CABLES: (Green line with 'C' markers)
- TELEPHONE: (Pink line with 'T' markers)
- WATER: (Light blue line with 'V' markers)
- UNIDENTIFIED CABLE: (Purple line with 'T' markers)
- CCTV: (Green line with 'CCTV' markers)
- GROUND PENETRATING RADAR: (Pink line with 'GPR' markers)
- END OF TRACE: (Line ending in a bracket)
- END OF TRENCH SCAR: (Line ending in a bracket)

[illegible]

Coordinate Table				
STATION	DESCRIPTION	EASTING	NORTHING	LEVEL
C1	PN	561588.709	196230.732	58.100
C2	PKN	561678.483	196315.763	59.622
C3	PN	561712.403	195854.552	65.284
C4	PKN	561694.461	195577.373	66.242
C5	PN	561990.847	195985.445	60.065
C7	PEG	562067.785	196111.149	61.283

IN = HERE: NGS PKN = Parker Koonen NGS PKN = Percentum Grand Forks and PN
 PN = Punch Point PN = Pine Hill PW = Waterloo (Lead with PKN and PN)

Aworth
SURVEY CONSULTANTS

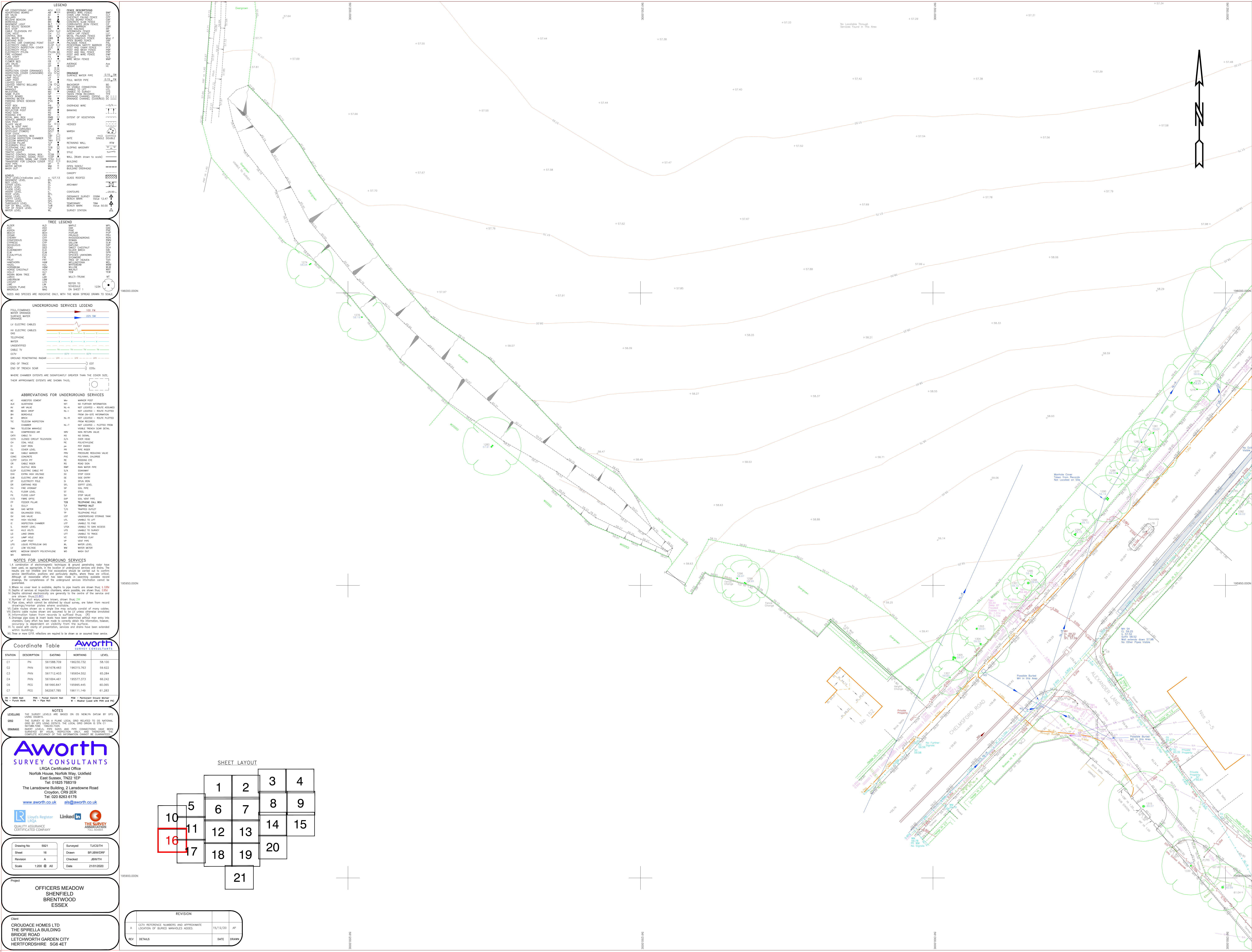
LRQA Certified Office
Norfolk House, Norfolk Way, Uckfield
East Sussex, TN22 1EP
Tel: 01825 768319

The Lansdowne Building, 2 Lansdowne Road
Croydon, CR9 2ER
Tel: 020 8263 6176

www.aworth.co.uk als@aworth.co.uk

Drawing No	5921	Surveyed	TJ/CS/TH
Sheet	16	Drawn	BFJ/BW/CRP
Revision	A	Checked	JBWITH
Scale	1:200 @ A0	Date	21/01/2020

Client
CROUDACE HOMES LTD
THE SPIRELLA BUILDING
BRIDGE ROAD
LETCHWORTH GARDEN CITY
HERTFORDSHIRE SG6 4ET



Croudace
STRATEGIC

GENERAL LAYOUT	
SCALE :	1/200
DATE :	DATE
DRAWN :	INITIALS
CHECKED :	
DRG.No. :	000/30

[illegible][illegible]

UNDERGROUND SERVICES LEGEND

The legend defines the following symbols for underground services:

- FOUL/CONTAMINATED WATER DRAINAGE:** Represented by a blue line with a downward-pointing arrow.
- SURFACE WATER DRAINAGE:** Represented by a blue line with a downward-pointing arrow.
- 110V ELECTRIC CABLES:** Represented by a red line with a zigzag pattern.
- LV ELECTRIC CABLES:** Represented by a green line with a zigzag pattern.
- GAS:** Represented by a yellow line with a zigzag pattern.
- TELEPHONE:** Represented by a black line with a zigzag pattern.
- WATER:** Represented by a blue line with a zigzag pattern.
- UNIDENTIFIED:** Represented by a black line with a zigzag pattern.
- CABLE TV:** Represented by a black line with a zigzag pattern.
- CABLE TV:** Represented by a black line with a zigzag pattern.
- GROUND PENETRATING RADAR:** Represented by a black line with a zigzag pattern.
- END OF TRACE:** Represented by a black line with a zigzag pattern.
- END OF FRENCH SCAR:** Represented by a black line with a zigzag pattern.

WHERE CHAMBER EXTENTS ARE SIGNIFICANTLY GREATER THAN THE COVER SIZE, THEIR APPROPRIATE EXTENTS ARE SHOWN THIS:

[illegible]

NOTES FOR UNDERGROUND SERVICES

A consideration of electromagnetic techniques & ground penetrating radar have been incorporated, in the list of services, and have been placed in the "Other" category. Although not verifiable and trial exposures should be carried out to confirm the results, positive results have been obtained in the past. The results of reasonable effort has been made in searching available record drawings for completeness of the underground services information cannot be guaranteed.

Where no cover level is available, depths to pipe inverts are shown that; **1,050**

II Depth of pipe invert is shown as a range of 100 to 150 feet; **1,050**

III Depth obtained electronically are generally to the center of the service and are shown as a range of 100 to 150 feet; **1,050**

IV Number of ducts agree, where known, shown that; **20**

V Depth of pipe invert is shown as a range of 100 to 150 feet, are taken from record drawings/master plans where available.

VI Color notes shown as a single line may actually consist of many codes.

VII Electric field strength is shown as a range of 100 to 150 feet; **1,050**

VIII Information taken from records is sufficient thus; **(R)**

IX Distance from service to the surface is shown as a range of 100 to 150 feet, are taken from record drawings/master plans where available.

X To assist with quality of presentation, services and shafts have been extended where appropriate.

XI Where there were GPR reflections are required to be shown as assumed line service.

Coordinate Table				Aworth SURVEY CONSULTANTS
STATION	DESCRIPTION	EASTING	NORTHING	LEVEL
C1	PN	561588.709	196230.732	58.100
C2	PNM	561878.483	196353.763	59.622
C3	PNM	561712.403	196564.552	65.284
C4	PNM	561694.461	195577.373	66.242
C6	PEG	561990.847	159995.445	61.065
C7	PEG	562067.785	196111.149	61.283

NOTES	
LEVELLING	THE SURVEY LEVELS ARE BASED ON OS NEWLIN DATUM BY GPS USING OSCM16.
GRID	THE SURVEY IS ON A PLANE LOCAL GRID RELATED TO OS NATIONAL GRID BY GPS USING GSW16. THE LOCAL GRID ORIGIN IS STN C1 261598.700E 199230.732N
DRAINAGE	INVERT LEVELS, PIPE SIZES AND PIPE CONNECTIONS HAVE BEEN SURVEYED BY VISUAL INSPECTION ONLY, AND THEREFORE THE

Aworth
SURVEY CONSULTANTS

LRQA Certified Office
Norfolk House, Norfolk Way, Uckfield
East Sussex, TN22 1EP
Tel: 01825 768319

The Lansdowne Building, 2 Lansdowne Road
Croydon, CR9 2ER
Tel: 020 5263 6176

www.aworth.co.uk ats@aworth.co.uk

 Lloyd's Register
LRQA
QUALITY ASSURANCE
CERTIFIED COMPANY

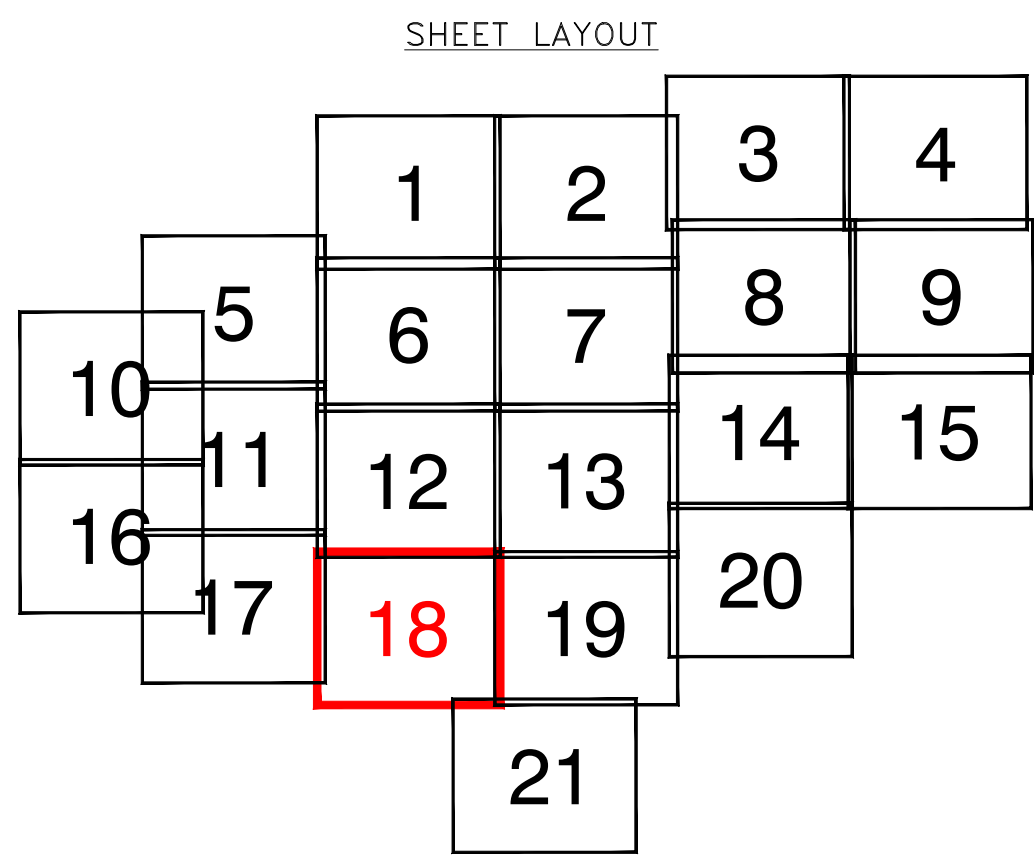
 **Linked In**

 **THE SURVEY
ASSOCIATION**
FULL MEMBER

Drawing No	5921	Surveyed	TJ/CS/TH
Sheet	16	Drawn	BF/JBW/CRF
Revision		Checked	JBW/TH
Scale	1:200 @ A0	Date	21/01/2020

Project
OFFICERS MEADOW
SHENFIELD
BRENTWOOD
ESSEX

Client
CROUDACE HOMES LTD
THE SPIRELLA BUILDING
BRIDGE ROAD
LETCWORTH GARDEN CITY
HERTFORDSHIRE SG6 4ET



Croudace
STRATEGIC

SITE TITLE

SITE TITLE

GENERAL LAYOUT

SCALE : 1/200

DATE : DATE

DRAWN : INITIA

CHECKED :

DRG.No. : 000/3

[illegible][illegible]

UNDERGROUND SERVICES LEGEND

FOLLOWS/CONTINUED WATER MAINING
 SURFACE WATER MAINING
 100' PM
 225' SW
 1/4" ELECTRIC CABLES
 1/4" ELECTRIC CABLES
 GAS
 TELEPHONE
 WATER
 UNIDENTIFIED
 CABLE TV
 CABLE TV
 CABLE TV
 GROUND PENETRATING RADAR
 END OF TRACE
 END OF FRENCH SCAR
 (ET)
 (EFS)

WHERE CHAMBER EXTENTS ARE SIGNIFICANTLY GREATER THAN THE COVER SIZE, THEIR APPROPRIATE EXTENTS ARE SHOWN THIS:

[illegible]

NOTES FOR UNDERGROUND SERVICES

A consideration of electromagnetic techniques & ground penetrating radar has been incorporated in the list of services. It is noted that the use of these techniques are not infallible and that exceptions should be carried out to confirm the results. However, positive results should be noted and the results of the work. Although of reasonable effort has been made in searching available records for the completeness of the underground services information cannot be guaranteed.

- I. Where no cover level is available, depths to pipe inverters are shown that; **1,050**
- II. Depths to pipe inverters are shown that; **1,050**
- III. Depths above electrically are generally to the centre of the service and are shown that; **1,050**
- IV. Number of ducts agree, where known, shown that; **20**
- V. Where the service is not shown, the survey, are taken from records drawings/markers/plots where available.
- VI. Colour notes shown as a single line may actually consist of many cables.
- VII. Electric cables are shown as a single line where otherwise recorded.
- VIII. Information taken from records is sufficed that; **(8)**
- IX. Where the service is not shown, the survey, are taken from records drawings/markers/plots where available.
- X. To assist with clarity of presentation, services and drains have extended where necessary.
- XI. Where there were G.P.R. reflections are required to be shown as assumed line service.

[illegible]

NOTES	
LEVELLING	THE SURVEY LEVELS ARE BASED ON OS NEWLYN DATUM BY GPS USING 0556M15.
GRID	THE SURVEY IS ON A PLANE LOCAL GRID RELATED TO OS NATIONAL GRID BY GPS USING 055M15. THE LOCAL GRID ORIGIN IS STN C1 561588.706E 195230.732N
DRAINAGE	INVERT LEVELS, PIPE SIZES AND PIPE CONNECTIONS HAVE BEEN SURVEYED BY VISUAL INSPECTION ONLY, AND THEREFORE THE DRAINAGE INFORMATION IS NOT GUARANTEED.



Aworth

SURVEY CONSULTANTS

LRQA Certified Office
 Norfolk House, Norfolk Way, Uxfield
 East Sussex, TN22 1EP
 Tel: 01825 768319

The Lansdowne Road, 2 Lansdowne Road
 Croydon, CR9 2ER
 Tel: 020 5363 6176

www.aworth.co.uk als@aworth.co.uk



Lloyd's Register
 QUALITY ASSURANCE
 CERTIFICATION COMPANY



LinkedIn



THE SURVEY
 ASSOCIATION
 1991-2016

Drawing No	5921	Surveyed	17/03/18
Client	19	Drawn	BP/awd/pc
Revision		Checked	JW/HTH
Scale	1:200 @ AG	Date	21/01/2020

Project

**OFFICERS MEADOW
 SHENFIELD
 BRENTWOOD
 ESSEX**

Client

**CROUDACE HOMES LTD
 THE SPIRELLA BUILDING
 BRIDGE ROAD
 LETCHWORTH GARDEN CITY
 HERTFORDSHIRE SG8 4ET**



SITE TITLE
SITE TITLE

GENERAL LAYOUT

SCALE : 1/200

DATE : DATE

DRAWN : INITIALS

CHECKED : _____

DRG.No. : 000/30

[illegible][illegible]

UNDERGROUND SERVICES LEGEND

FOUL/CONTAMINATED WATER DRAINAGE 100 MM

SURFACE WATER DRAINAGE 225 MM

LV ELECTRIC CABLES

HV ELECTRIC CABLES

TELEPHONE

WATER

UNIDENTIFIED

CABLE TV

CCTV

GROUND PENETRATING RADAR

END OF TRENCH

END OF TRENCH SCAR

WHERE CHAMBER EXTENTS ARE SIGNIFICANTLY GREATER THAN THE COVER SIZE, THEIR APPROPRIATE EXTENTS ARE SHOWN THIS.

[illegible][illegible]

Coordinate Table				Aworth SURVEY CONSULTANTS
STATION	DESCRIPTION	EASTING	NORTHING	LEVEL
C1	PN	561588.709	196230.732	58.100
C2	PNH	561678.483	195305.763	59.622
C3	PNH	561712.403	195654.552	65.284
C4	PNH	561694.461	195577.373	66.242
C5	PEG	561990.847	195995.445	60.065
C6	PEG	562067.785	196111.948	61.283

PN = Pinner Road N200 N
 PNH = Pinner North
 PEG = Pinner Green N200 N
 PN = Pinner North
 P = Pinner Road N200 N
 PN = Pinner North
 P = Pinner Road N200 N

NOTES

LEVELLING	THE SURVEY LEVELS ARE BASED ON OS NEWLYN DATUM BY GPS USING DSCM15.
GRID	THE SURVEY IS ON A PLANE LOCAL GRID RELATED TO OS NATIONAL GRID BY GPS USING DSCM15. THE LOCAL GRID ORIGIN IS STN C1.
DRAINAGE	INVERT LEVELS, PIPE SIZES AND PIPE CONNECTIONS HAVE BEEN SURVEYED BY VISUAL INSPECTION ONLY, AND THEREFORE THE DRAINAGE INFORMATION PROVIDED HEREON MAY BE INCOMPLETE.

Aworth
SURVEY CONSULTANTS

LRQA Certified Office
Norfolk House, Norfolk Way, Uckfield
East Sussex, TN22 1EP
Tel: 01293 708319

The Lansdowne Building, 2 Lansdowne Road
Croydon, CR9 2ER
Tel: 020 8263 6176

www.aworth.co.uk as@aworth.co.uk

 Lloyd's Register
LRQA
QUALITY ASSURANCE
CERTIFICATED COMPANY

 **Linked in**

 **THE SURVEY
ASSOCIATION**
FULL MEMBER

Drawing No	5921	Surveyed	TJ/CS/TH
Sheet	20	Drawn	BFI/BW/CRF
Revision		Checked	JBWITH
Scale	1:200 @ A0	Date	21/01/2020

Project

OFFICERS MEADOW
SHENFIELD
BRENTWOOD
ESSEX

Client:
CROUDAGE HOMES LTD
THE SPIRELLA BUILDING
BRIDGE ROAD
LETCWORTH GARDEN CITY
HERTFORDSHIRE SG6 4ET

SHEET LAYOUT

	1	2	3	4	
	5	6	7	8	9
10	11	12	13	14	15
16	17	18	19	20	
		21			

Client
CROUDACE HOMES LTD
THE SPIRELLA BUILDING
BRIDGE ROAD
LETCHWORTH GARDEN CITY
HERTFORDSHIRE SG6 4ET



SHEET_LAYOUT

	1	2	3	4
	5	6	7	8
10	11	12	13	14
16	17	18	19	20
		21		



CCTV SURVEYS



**HIGH PRESSURE
JETTING**



Aworth

SURVEY CONSULTANTS

**NORFOLK HOUSE
NORFOLK WAY, UCKFIELD
EAST SUSSEX, TN22 1EP**
Telephone: 01825 768319
Fax: 01825 768310
www.aworth.co.uk

CCTV REPORT

CLIENT	CROUDACE STRATEGIC
LOCATION	OFFICERS MEADOW CHELMSFORD ROAD SHENFIELD BRENTWOOD ESSEX
DATE	23/11/2020
REF	071349 - 6109
DVD No	001