

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
Mob: 07803 262 009
E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
1720 - 3

Checked by:

Date:
Aug '17

56 Platts Lane, Hampstead

Design of floor joists

Case 1 to lounge over Bedroom Span 4100

UDL 2.1 KN/m²

$$\text{Max BM } 2.1 \times 4.1^2 / 8 = 4.4 \text{ KNm/m}$$

$$\text{Z Req'd } 4.4 \times 10^6 / 5.3 \times 1.1 = 757 \text{ mm}^3 / \text{m}$$

Try 225 x 50 @ 400 ctrs (Z = 940 e3 mm³)

Deflection

$$5 \times 2.1 \times 0.4 \times (4.1)^4 \times 10^3 / 384 \times 8.8 \times 41.1 = 8.5 \text{ mm}$$

span x 0.002 OK

Worst case so provide 225 x 50 @ 400 ctrs in all areas

Beam B1

Span 1800

Loading

$$\text{225 wall } 4.5 \text{ KN/m}^2 \times 2.5 \times 90\% = 10.1 \text{ KN/m}$$

$$\text{Floor say } 2.1 \text{ KN/m}^2 \times 1.5 \text{ m} = 3.2 \text{ KN/m}$$

13.3 KN/m

Reaction 12 KN

$$\text{BM } 13.3 \times 1.8^2 / 8 = 5.4 \text{ KNM}$$

By inspection provide 152 UC 23 in floor depth

Beam B2

Span 4400

Loading

$$\text{Udl floor } = 2.1 \text{ KN/m}^2 \times 6 / 2 = 6.3 \text{ KN/m}$$

Reaction = 13.9 KN

$$\text{Max BM } 6.3 \times 4.4^2 / 8 = 15.3 \text{ KNm}$$

Try 152 UC 23

$$L/Ry = 1.2 \times 4400 / 36.8 = 144$$

$$P_{bc} = 98 \text{ N/mm}^2$$

$$F_{bc} = 15.3 \times 10^6 / 165.7 \times 10^3 = 92 \text{ N/mm}^2$$

OK

Deflection

$$5 \times 6.3 \times (4.4)^4 \times 10^5 / 384 \times 210 \times 1263 = 11.5 \text{ mm}$$

too high

Provide
152 UC 30

Deflection = 8.3mm

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
 Mob: 07803 262 009
 E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
 1720 - 4

Checked by:

Date:
 Aug '17

56 Platts Lane, Hampstead

Bwam B3

Span 5100

Loading

UDL 1

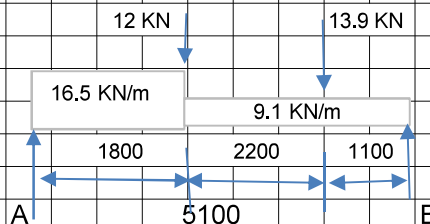
$$\begin{aligned} \text{Wall } 2.2 \text{ KN/m}^2 \times 3.2 &= 7.0 \text{ KN/m} \\ \text{Floor } 2.1 \text{ KN/m}^2 \times 2 / 2 &= \underline{2.1 \text{ KN/m}} \\ &9.1 \text{ KN/m} \end{aligned}$$

UDL 2

$$\begin{aligned} \text{Wall } 4.5 \text{ KN/m}^2 \times 3.2 &= 14.4 \text{ KN/m} \\ \text{Floor } 2.1 \text{ KN/m}^2 \times 2 / 2 &= \underline{2.1 \text{ KN/m}} \\ &16.5 \text{ KN/m} \end{aligned}$$

$$\begin{aligned} \text{Point load B1} &= 12 \text{ KN} \\ \text{B2} &= 13.9 \text{ KN} \end{aligned}$$

$$\begin{aligned} R_a &= 9.1 \times 3.3 \times 1.65 / 5.1 + \\ &16.5 \times 1.8 \times 4.2 / 5.1 + \\ &12 \times 3.3 / 5.1 + \\ &13.9 \times 1.1 / 5.1 = \\ &44.9 \text{ KN} \end{aligned}$$



$$\begin{aligned} R_b &= 9.1 \times 3.3 \times 3.45 / 5.1 + \\ &16.5 \times 1.8 \times 0.9 / 5.1 + \\ &12 \times 1.8 / 5.1 + \\ &13.9 \times 4.0 / 5.1 = 40.7 \text{ KN} \end{aligned}$$

$$\text{Point of zero shear from B} = (40.7 - 13.9) / 9.1 = 2.945 \text{ m}$$

$$\begin{aligned} \text{Max BM} &= 40.7 \times 2.945 - 13.9 \times 1.845 - 9.1 \times 2.945^2 / 2 = \\ &54.8 \text{ KNm} \end{aligned}$$

Try 201 UC 46

$$L / R_y = 1.2 \times 5100 / 51.1 = 120$$

$$P_{bc} = 125 \text{ N/mm}^2$$

$$F_{bc} = 54.8 \text{ e}6 / 449.2 \text{ e}3 = 122 \text{ N/mm}^2$$

Deflection

$$\text{Equivalent UDL} = 8 \times 54.8 / 5.1 S_q = 16.9 \text{ KN/m}$$

$$5 \times 16.9 \times (5.1)^4 \times \text{e}5 / 384 \times 210 \times 4564 = 15.5 \text{ mm}$$

Too high

Provide
 203 UC 60
 Deflection = 11.6mm
 Span / 435

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
Mob: 07803 262 009
E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
1720 - 5

Checked by:

Date:
Aug '17

56 Platts Lane, Hampstead

Beam B4

Span 6300

Loading

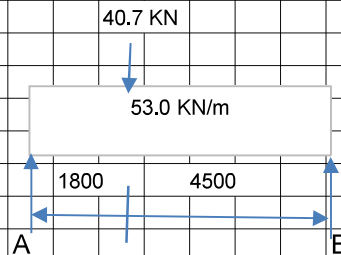
Roof	1.9 KN/m ² x 8 / 2	= 7.6 KN/m
2nd Flr	2.1 Kn/m ² x say 3m	= 6.3 KN/m
1st Flr	2.1 Kn/m ² x 8 / 2	= 8.4 KN/m
Grd Flr	2.1 KN/m ² x 3.5 / 2	= 3.7 KN/m
Wall	say 3Kn/m ² ave x 9m	= <u>27.0 KN/m</u>

53.0 KN/m

Point load B3 = 40.7 KN

$$R_a = 53 \times 6.3 / 2 + 40.7 \times 4.5 / 6.3 = 196.0 \text{ KN}$$

$$R_b = 53 \times 6.3 / 2 + 40.7 \times 1.8 / 6.3 = 178.5 \text{ KN}$$



$$\text{Point of zero shear from B} = 178.5 / 53 = 3.368$$

$$\text{Max BM} = 178.5 \times 3.368 / 2 = 300.6 \text{ KNM}$$

Try 305 UC 158

$$L / R_y = 1.2 \times 6300 / 78.9 = 96$$

$$P_{bc} = 149 \text{ N/mm}^2$$

$$F_{bc} = 300.6 \text{ e}6 / 2368 \text{ e}3 = 127 \text{ N/mm}^2$$

OK

Deflection

$$\text{Equivalent UDL} = 8 \times 300.6 / 6.3 \text{Sq} = 60.6 \text{ KN/m}$$

$$5 \times 60.6 \times (6.3)^4 \times \text{e}5 / 384 \times 210 \times 38740 = 15.2 \text{ mm}$$

Provide
305 UC 158

Span / 412

OK

Beam B5

Span 2000

Loading

$$\text{wall} = 2.2 \text{ Kn/m}^2 \times 2.7 = 5.9 \text{ KN/m}$$

$$\text{Floor} = 2.1 \text{ Kn/m}^2 \times \text{say } 1 = \underline{2.1 \text{ KN/m}}$$

$$8.0 \text{ KN/m}$$

Reaction 8 KN

$$\text{Max BM} = 8 \times 2 \text{ Sq} / 8 = 4 \text{ KNm}$$

By inspection provide 152 UC 23 as B1

Provide
152 UC 23

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
 Mob: 07803 262 009
 E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
 1720 - 6

Checked by:

Date:
 Aug '17

56 Platts Lane, Hampstead

Beam B6

Span 6600

Loading

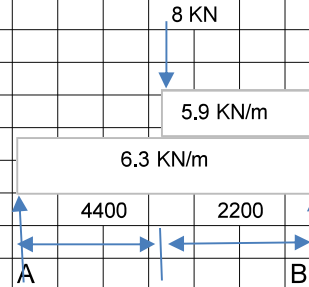
Floor $2.1 \text{ KN/m}^2 \times 6 / 2 = 6.3 \text{ KN/m}$

e/o wall as B5 $= 5.9 \text{ KN/m}$

Point load B5 $= 8 \text{ KN}$

$$R_a = 6.3 \times 6.6 / 2 + 8 \times 2.2 / 6.6 + 5.9 \times 2.2 \times 1.1 / 6.6 = 25.6 \text{ KN}$$

$$R_a = 6.3 \times 6.6 / 2 + 8 \times 4.4 / 6.6 + 5.9 \times 2.2 \times 5.5 / 6.6 = 36.9 \text{ KN}$$



Point of zero shear from A $= 25.6 / 6.3 = 4.06\text{m}$

Max BM $25.6 \times 4.06 / 2 = 52 \text{ KNm}$

Try 203 UC 52

$$L / r_y = 1.2 \times 6600 / 51.6 = 154$$

$$P_{bc} = 106 \text{ N/mm}^2$$

$$F_{bc} = 52 \text{ e}6 / 510.4 \text{ e}3 = 102 \text{ N/mm}^2$$

OK

Deflection

Equivalent UDL $8 \times 52 / 6.6 \text{ Sq} = 9.6 \text{ Kn/m}$

$$5 \times 9.6 \times (6.6)^4 \times \text{e}5 / 384 \times 210 \times 5263 = 21.5 \text{ mm}$$

too high

Provide
 254 UC 73
 deflection = 9.9mm

Beam B7

Span 6300

Loading

Roof $1.9 \text{ Kn/m}^2 \times 8 / 2 = 7.6 \text{ KN/m}$

2nd flr $2.1 \text{ KN/m}^2 \times 8 / 2 = 8.4 \text{ KN/m}$

1st flr $2.1 \text{ Kn/m}^2 \times 8 / 2 = 8.4 \text{ KN/m}$

Partitions $0.6 \text{ KN/m}^2 \times 2.7 \times 3 = 4.9 \text{ Kn/m}$

Grd flr $2.1 \text{ KN/m}^2 \times 8 / 2 = 8.4 \text{ Kn/m}^2$

Wall grd & 1st $4.5 \text{ KN/m}^2 \times 6.5\text{m} = 29.3 \text{ KN/m}$

Wall 2nd $0.6 \text{ KN/m}^2 \times 2.7 = 1.6 \text{ KN/m}$

$$68.6 \text{ KN/m}$$

Point load B5 $= 8 \text{ KN}$

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
Mob: 07803 262 009
E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
1720 - 7

Checked by:

Date:
Aug '17

56 Platts Lane, Hampstead

$$R_a = 68.6 \times 6.3 / 2 + 8 \times 2 / 6.3 =$$

218.6 KN

$$R_b = 68.6 \times 6.3 / 2 + 8 \times 4.3 / 6.3 =$$

221.6 KN

Point of zero shear from A

$$218.6 / 68.6 = 3.19\text{m}$$

Max BM $218.6 \times 3.19 / 2 = 348.3 \text{ KNm}$

Try 305 UC 158

$$L / R_y = 1.2 \times 6300 / 78.9 = 96$$

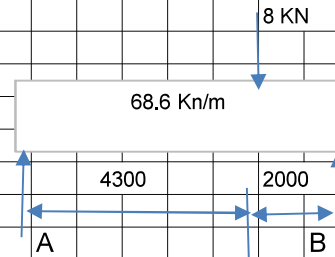
$$P_{bc} = 152 \text{ N/mm}^2$$

$$F_{bc} = 348.3 \text{ e}6 / 2368 \text{ e}3 = 147 \text{ N/mm}^2$$

Deflection

$$\text{Equivalent UDL} = 8 \times 348.3 / 6.3 \text{Sq} = 70.2 \text{ KN/m}$$

$$5 \times 70.2 \times (6.3)^4 \times \text{e}5 / 384 \times 210 \times 38740 = 17.7\text{mm}$$



Too high Provide 305 UC 198

Deflection = 13.5mm

Span / 465

Beam B8

Span 3600

$$\text{UDL floor} = 2.1 \text{ KN/m}^2 \times 6.5 / 2 = 6.8 \text{ KN/m}$$

Reaction 13 KN

$$\text{Max BM} = 6.8 \times 3.6 \text{Sq} / 8 = 11 \text{ KNm}$$

Try 152 UC 23

$$L / R_y = 1.2 \times 3600 / 36.8 = 117$$

$$P_{bc} = 119 \text{ N/mm}^2$$

$$F_{bc} = 11 \text{ e}6 / 165.7 \text{ e}3 = 66 \text{ N/mm}^2$$

Deflection

$$5 \times 6.8 \times (3.6)^4 \times \text{e}5 / 384 \times 210 \times 1263 = 5.6\text{mm}$$

Provide
152 UC 23

Span / 640

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
 Mob: 07803 262 009
 E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
 1720 - 8

Checked by:

Date:
 Aug '17

56 Platts Lane, Hampstead

Beam B9

Span 3000

Loading

225 wall	4.5 KN/m ² x 5.5	= 24.8 Kn/m
Roof	1.9 KN/m ² x 4 / 2	= 3.8 Kn/m
1st Flr	2.1 KN/m ² x 4 / 2	= 4.2 KN/m
Grd Flr	2.1 KN/m ² x say 1	= 2.1 KN/m
Ext slab	6.3 KN/m x 2.3 / 2	= 7.3 KN/m

42.2 KN/m

Reaction 63.3 KN

Max BM $42.2 \times 3 \text{Sq} / 8 = 47.5 \text{ KNm}$

Try 203 UC 46

$L / R_y = 1.2 \times 3000 / 51.1 = 70$

$P_{bc} = 163 \text{ N/mm}^2$

$F_{bc} = 47.5 \text{ e}6 / 449.2 \text{ e}3 = 106 \text{ N/mm}^2$

OK

Deflection

$5 \times 42.2 \times (3) / 4 \times \text{e}5 / 384 \times 210 \times 4564 = 4.6 \text{ mm}$

Span / 645

Provide
 203 UC 46

Beam 10

Span 2300

Loading

225 wall	4.5 KN/m ² x 5.5	= 24.8 Kn/m
Roof	1.9 KN/m ² x 6 / 2	= 5.7 Kn/m
1st Flr	2.1 KN/m ² x 4 / 2	= 4.2 KN/m
Grd Flr	2.1 KN/m ² x 4 / 2	= 4.2 KN/m
Ext slab	6.3 Kn/m ² x 3 / 2	= 9.5 KN/m

48.4 KN

Reaction 55.7 KN

Max BM $48.4 \times 2.3 \text{ Sq} / 8 = 32 \text{ KNm}$

By inspection provide 203 UC 46

Beam 11 - over light well

Beam to be in 3 spans

Span 2300 max

Loading

225 wall	4.5 KN/m ² x 6.5	= 29.3 Kn/m
Roof	1.9 KN/m ² x 7 / 2	= 6.7 Kn/m
2nd Flr	2.1 KN/m ² x say 2m	= 4.2 KN/m
1st Flr	2.1 KN/m ² x 7 / 2	= 7.4 KN/m
Grd Flr	2.1 KN/m ² x say 1	= 2.1 KN/m

49.7 KN/m

Reaction 57.2 KN

Max BM $49.7 \times 2.3 \text{Sq} / 8 = 32.9 \text{ KNm}$

By inspection Provide

203 UC 46

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
 Mob: 07803 262 009
 E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
 1720 - 9

Checked by:

Date:
 Aug '17

56 Platts Lane, Hampstead

Column Support to B8, 9 & 10

Height 3200

Loading

B8	13 KN
B9	63.3 KN
B10	55.7 KN
	<u>132 KN</u>

Connection to top of column will be a cap connection with B9 sitting on the column and B8 and B10 bolting to it

BM say $132\text{KN} \times 0.075 = 9.9 \text{ KNm}$

Try 139.7 CHS $t = 10\text{mm}$

$L / R_y = 1.5 \times 3200 / 46 = 104$

$P_{bc} = 180 \text{ N/mm}^2$

$P_c = 78 \text{ N/mm}^2$

$F_{bc} = 9.9 \text{ e}6 / 123 \text{ e}3 = 81 \text{ N/mm}^2$

$F_c = 132 \text{ e}3 / 40.7 \text{ e}2 = 33 \text{ N/mm}^2$

UF $81 / 180 + 33 / 78 = 0.87$

OK

Provide
 139.7 dia CHS
 $t = 10\text{mm}$

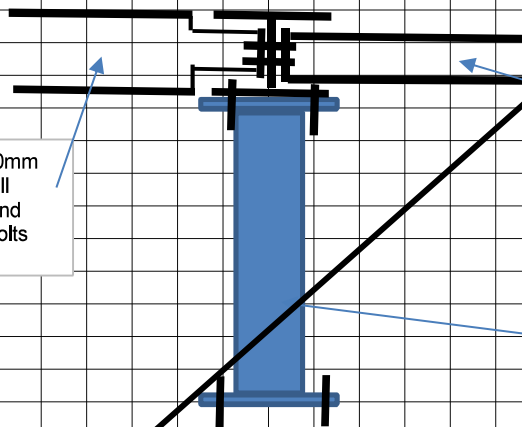
203 UC 46 with 10mm end plate. 6mm full profile fillet weld and 4M20 grade 8.8 bolts

152 UC 23 with 10mm end plate, 6mm full profile fillet weld and 4M20 grade 8.8 bolts

139.7 dia CHS $t = 10\text{mm}$ with 10mm end plates. 6mm full profile fillet weld and 4M20 grade 8.8 bolts to steel and 4 M16 anchor bolts to slab

Column bearing on basement slab
 $GBP = 132 / 1.2 \times 1.2 = 92 \text{ KN/m}^2$

OK



S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
Mob: 07803 262 009
E Mail: srb@srbrunswick.com

Prepared by:
SRB

Sheet:
1720 - 10

Checked by:

Date:
Aug '17

56 Platts Lane, Hampstead

Design of Basement

The basement is formed within the slope of the ground with a maximum retained height of 3.5m. The walls are to be constructed as reinforced concrete underpins connected to the raft and built in strips. to provide stability.

Maximum height 3.5m

Assumed soil parameters for dense sand as found in trial holes

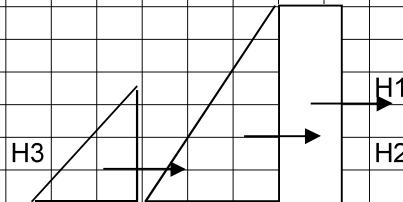
density 18 KN/m² Angle of internal friction 40 degrees
Ka = 0.26

Surcharge say 5 KN/m²

H1 5 KN/m² x 0.26 x 3.5 = 4.6 KN/m

H2 soil = 18 x 0.26 x 3.5²/2
28.7 KN/m

H3 Water = 10KN/m² x 2.5²/2
31.3 KN/m



Max BM at base of wall

$$4.6 \times 3.5/2 + 28.7 \times 3.5/3 + 31.3 \times 2.5/3 = 67.6 \text{ KNm}$$

$$\text{Ult load say } 67.6 \text{ KN/m} \times 1.55 = 104.8 \text{ KNm}$$

Try 350 thick RC wall

Cover say 40mm d = 300

$$M/b \cdot d^2 \cdot f_{cu} = 105 \text{ e}6 / (\text{e}3 \times 300^2 \times 35) = 0.033$$

$$a_1 = 0.94$$

$$A_{st} = 105 \text{ e}6 / (0.87 \times 500 \times 0.94 \times 300) = 856 \text{ mm}^2 / \text{m}$$

Provide T16 @ 150 ctrs (1340 mm²) in each face vertically

Distribution steel T12 @ 150 ctrs (754 mm² / m in each face)

$$\text{min steel } 0.13\% \text{ area} = 455 \text{ mm}^2/\text{m}$$

Check slenderness

$$\text{Span / depth} = 7 \qquad M/bd^2 \cdot f_{cu} = 1.17$$

$$M_f = 1.75$$

Mf compression steel 1.12

$$\text{Allowable span} = 7 \times 1.75 \times 1.12 \times 300 = 4110$$

OK

S R BRUNSWICK CEng FICE

138 Woodcock Hill, Kenton, Middlesex HA3 0JN
Mob: 07803 262 009
E Mail: srb@srbrunswick.com

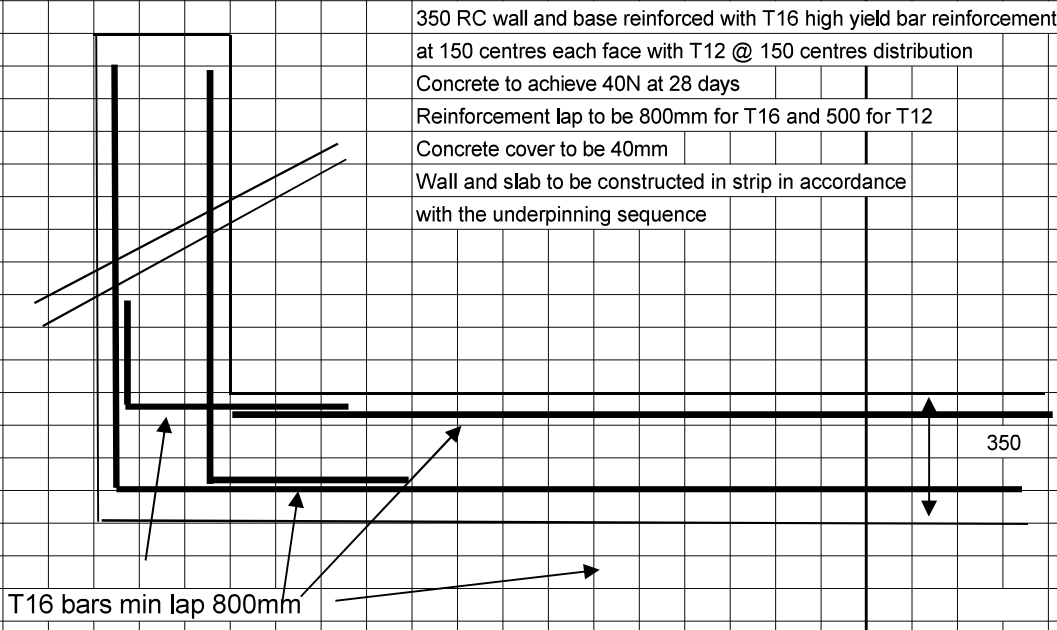
Prepared by:
SRB

Sheet:
1720 - 11

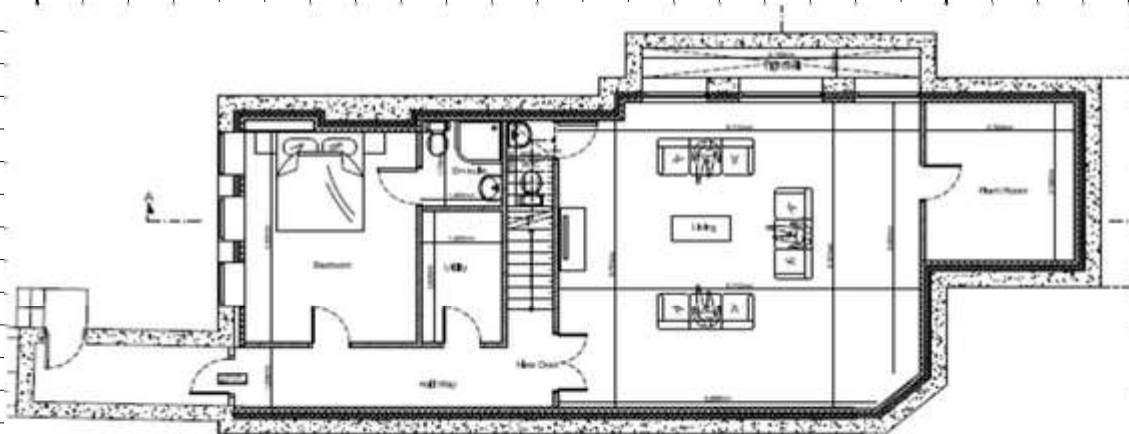
Checked by:

Date:
Aug '17

56 Platts Lane, Hampstead

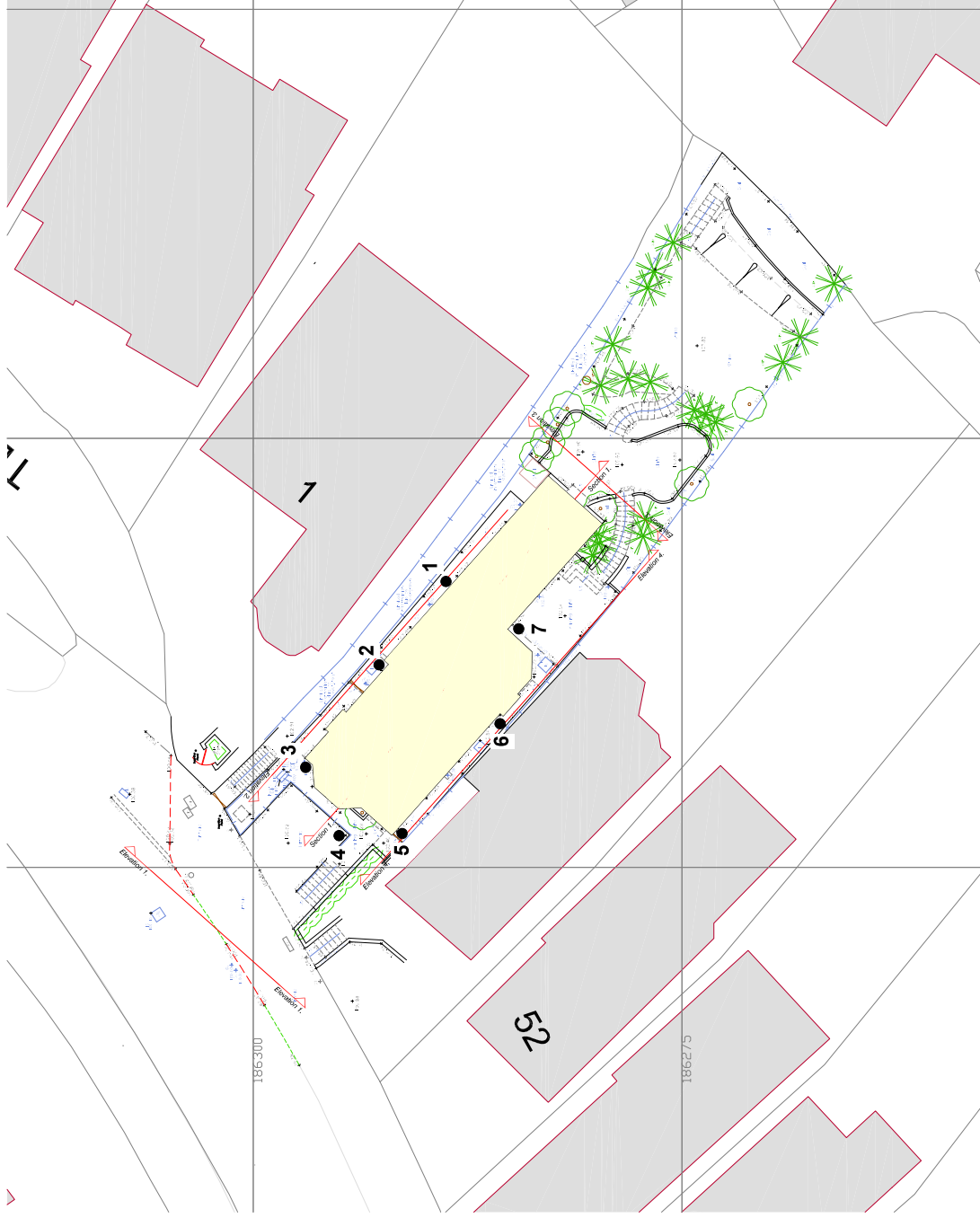


Typical RC detail, Applicable for whole basement

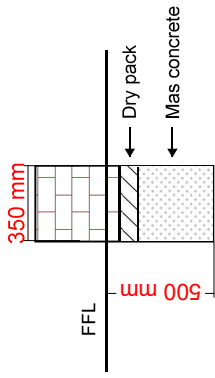


Basement Plan

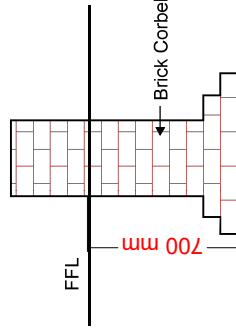
APPENDIX C – Trial Hole Details & Geotechnical Ground Investigation



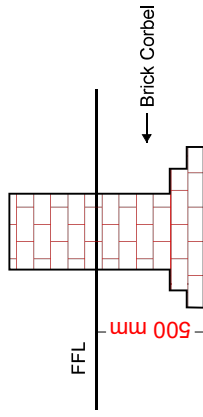
Trial Hole 1 & 2



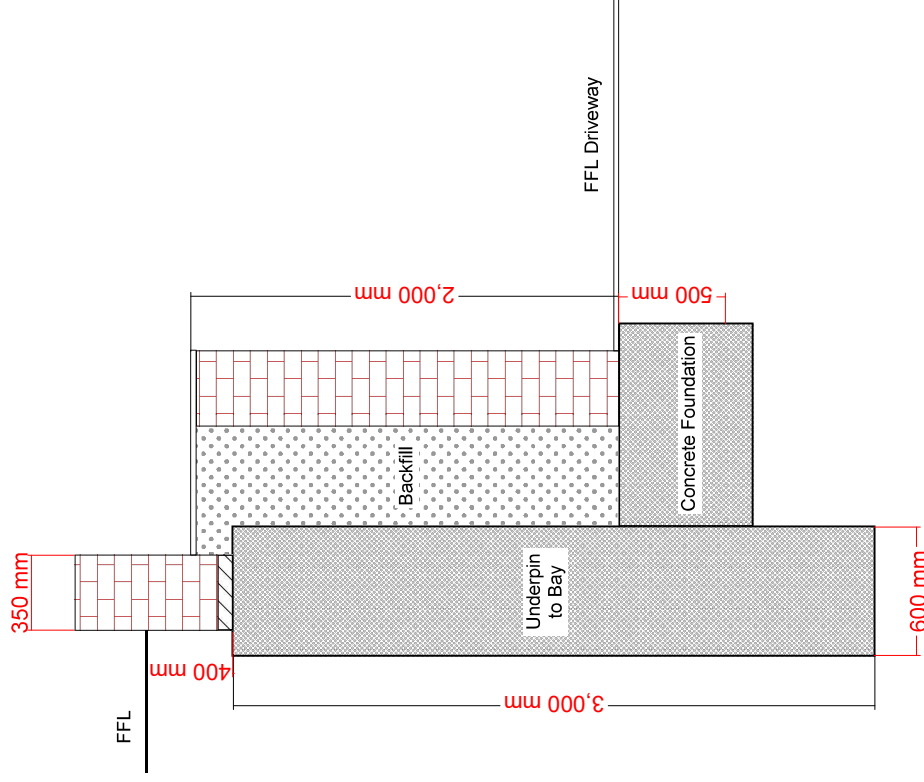
Trial Hole 3 & 5



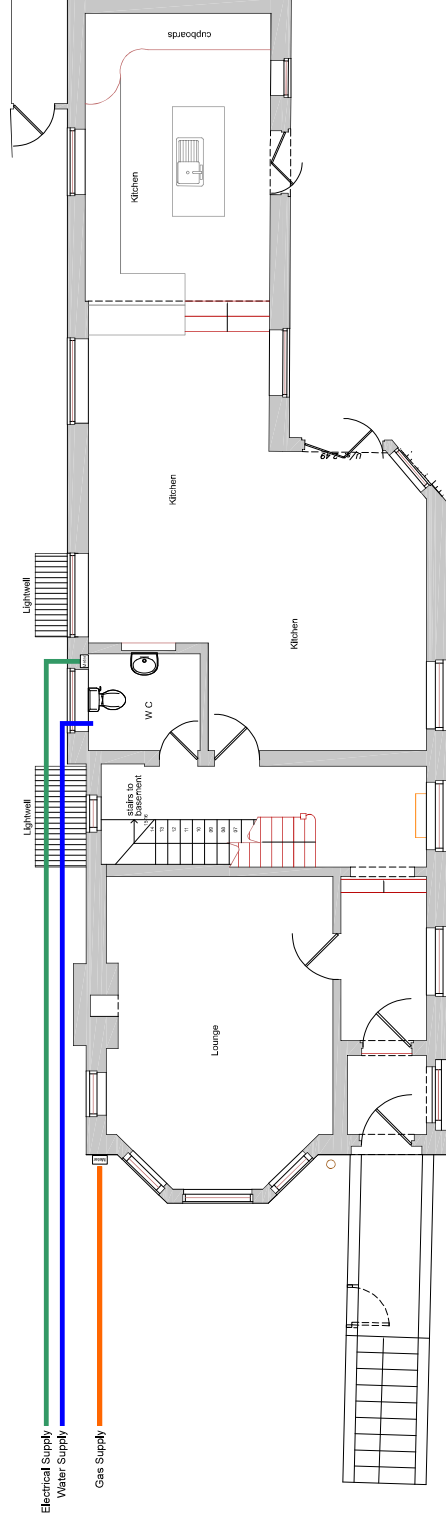
Trial Hole 6 & 7



Trial Hole 4 & Section 1



APPENDIX E :
SERVICES LAYOUT



PROPOSED GROUND FLOOR PLAN

MIRALAN DESIGN LTD
 Unit 3, London Business Park, London, NW2 7AH
 Tel: 0208 452 9400 Email: info@amirilan.com

Project: 56 Platt's Lane
 Drawing Ref: Services Layout
 Date: 17.01.19
 Revision:

APPENDIX F :

THAMES WATER ASSET MAP

Asset location search



Property Searches

Amir Rei
715
North Circular Road
LONDON
NW2 7AH

Search address supplied 56
Platts Lane
London
NW3 7NT

Your reference 56 Platts Lane

Our reference ALS/ALS Standard/2019_3943797

Search date 29 January 2019

Keeping you up-to-date

Notification of Price Changes

From 1 September 2018 Thames Water Property Searches will be increasing the price of its Asset Location Search in line with RPI at 3.23%.

For further details on the price increase please visit our website: www.thameswater-propertysearches.co.uk
Please note that any orders received with a higher payment prior to the 1 September 2018 will be non-refundable.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148



Search address supplied: 56, Platts Lane, London, NW3 7NT

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

Asset location search



Property Searches

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.



Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

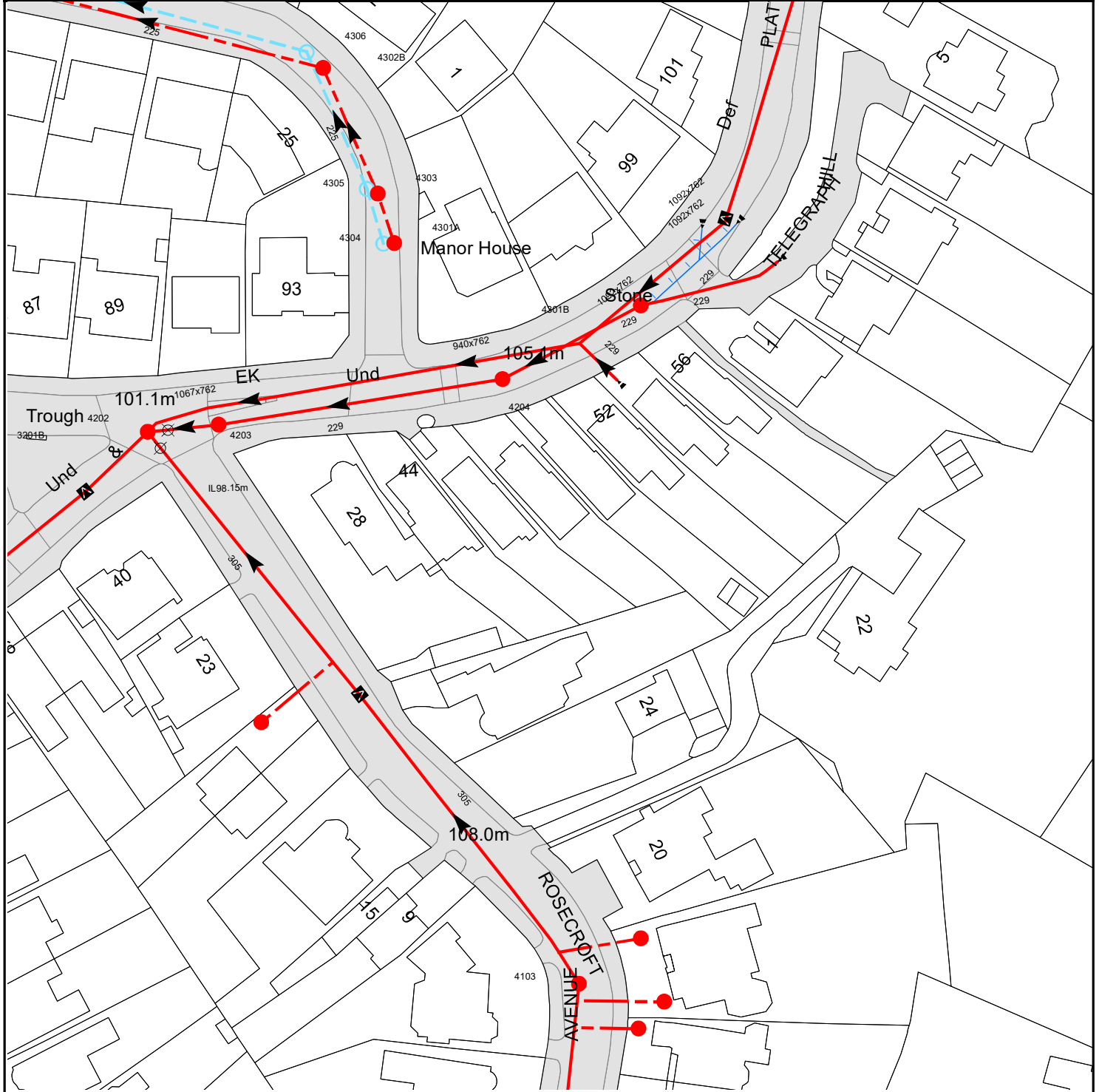
Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2019_3943797



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 525480,186262
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
4306	98.26	95.48
4106	n/a	n/a
5101	n/a	n/a
4103	108.24	104.56
4105	n/a	n/a
4208	n/a	n/a
4202	98.2	90.01
4203	101.87	100.29
4204	104.97	103.28
4301B	105.49	103.93
4304	101.81	97.65
4301A	101.79	97.26
4303	101.02	96.73
4305	100.83	97.09
4302B	98.65	95.1

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.



ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

	Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Trunk Foul
	Storm Relief
	Trunk Combined
	Bio-solids (Sludge)
	Vent Pipe
	Proposed Thames Surface Water Sewer
	Proposed Thames Foul Sewer
	Gallery
	Surface Water Rising Main
	Sludge Rising Main
	Vacuum
	Foul Rising Main
	Combined Rising Main
	Proposed Thames Water Rising Main

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

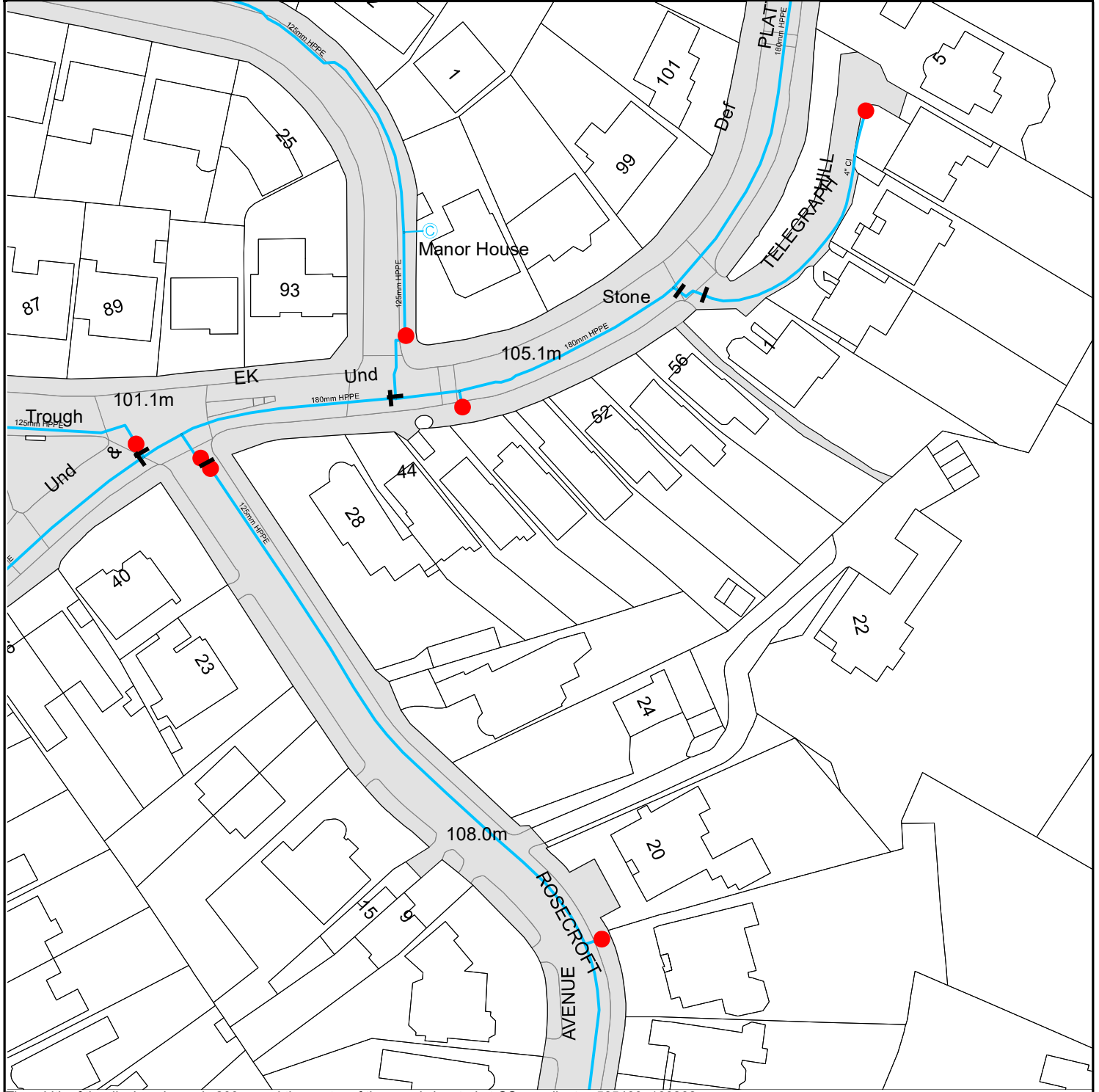
Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit
Areas	Lines denoting areas of underground surveys, etc.
	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer		Surface Water Sewer
	Combined Sewer		Gulley
	Culverted Watercourse		Proposed
			Abandoned Sewer



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 525480, 186262.

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

4" Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16" Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL`s terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
<p>Call 0845 070 9148 quoting your invoice number starting CBA or ADS / OSS</p>	<p>Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk</p>	<p>By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number</p>	<p>Made payable to 'Thames Water Utilities Ltd' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13</p>

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.

Terms and Conditions



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if the Ombudsman finds that you have suffered actual loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Web site: www.tpos.co.uk
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE