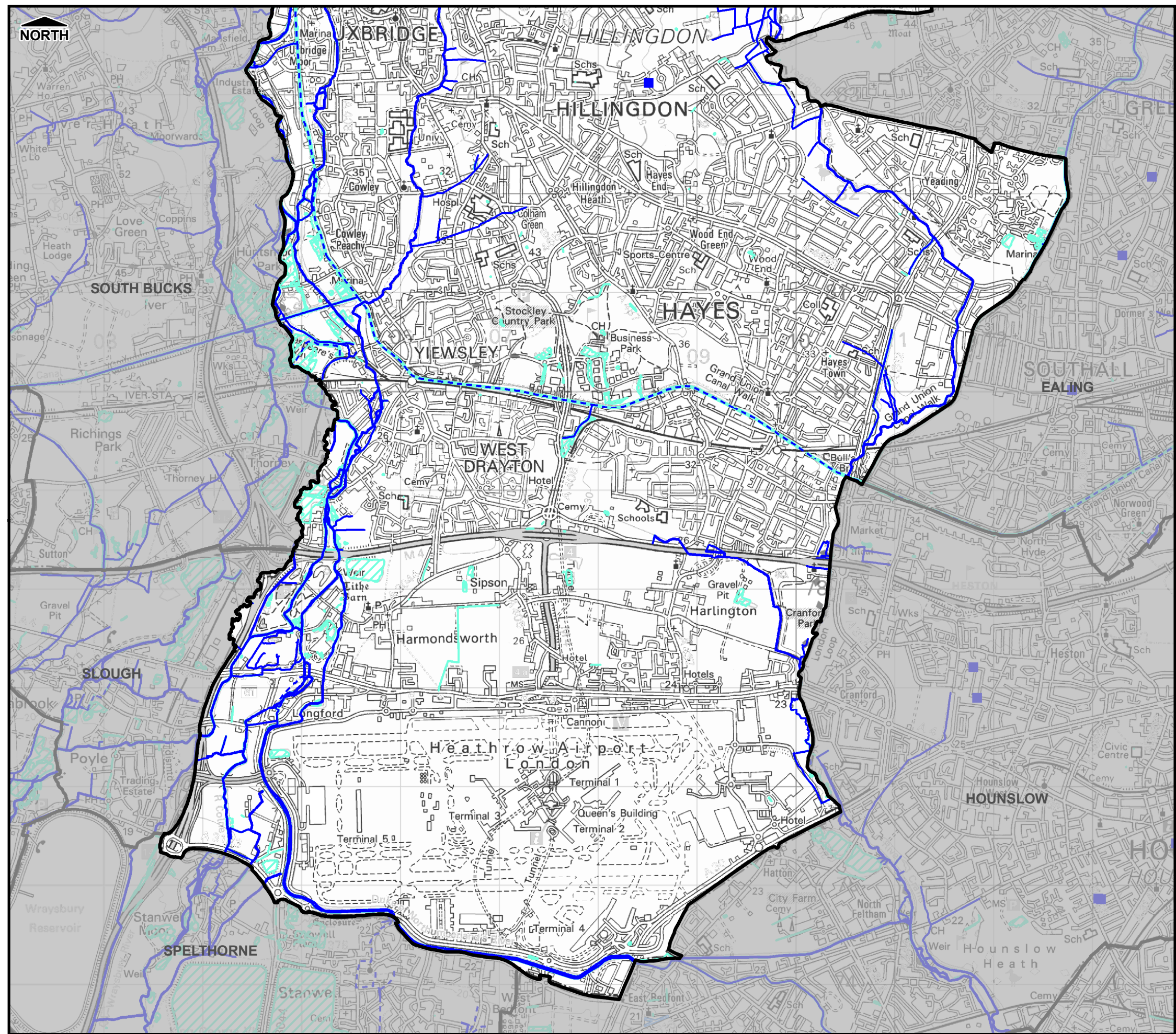


Filepath: L:\Environment\zwet\CS046913_DrainLondon_Tier2\Group1\ARC\mxds\PFRA\GP1_Hillingdon_FigA-3.2_GWIncidents.mxd



THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED

Legend

- Borough Administrative Boundary
- Main River
- Ordinary Watercourse
- Culverted Watercourse (Main River)
- Permanent Water Bodies
- Groundwater Flood Incident (EA Records)
- Ground Water Flood Outline

Notes

London Borough of Hillingdon



Preliminary Flood Risk Assessment

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Scale at A3	Date	Drawn by	Approved by
1:40,000	06/04/2011	R.MOORE	P.HLINSKY

Summary Map of Past Floods - Ground Water Incidents

Consultants	Capita Symonds Level Seven, 52 Grosvenor Gardens, Belgravia, London SW1W 0AU
Flood Risk Management	

Drain London Programme Board Members



FIGURE A-3.2

Appendix F

Thames Water Asset Plan



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
	Vent Pipe
	Bio-solids (Sludge)
	Proposed Thames Surface Water Sewer
	Proposed Thames Water Foul Sewer
	Gallery
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Sludge Rising Main
	Proposed Thames Water Rising Main
	Vacuum

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

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		Gully
	Culverted Watercourse		Proposed
			Abandoned Sewer

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.

- 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.

Manhole Reference	Manhole Cover Level	Manhole Invert Level
60XK	n/a	n/a
60XJ	n/a	n/a
60XN	n/a	n/a
60XE	n/a	n/a
60XS	n/a	n/a
50XC	n/a	n/a
50XB	n/a	n/a
60XY	n/a	n/a
60XH	n/a	n/a
50KA	n/a	n/a
60XI	n/a	n/a
60FC	n/a	n/a
6003	31.84	30.54
60FB	n/a	n/a

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.

Manhole Reference	Manhole Cover Level	Manhole Invert Level
6005	31.95	29.35
60FA	n/a	n/a
60XD	n/a	n/a
60FF	n/a	n/a
60XX	n/a	n/a
60FG	n/a	n/a
60XB	n/a	n/a
60FE	n/a	n/a
60FK	n/a	n/a
60XC	n/a	n/a
60FJ	n/a	n/a
6002	32.16	28.76
60FI	n/a	n/a
60XG	n/a	n/a
6006	n/a	n/a
60FH	n/a	n/a
6001	31.87	30.01
60XZ	n/a	n/a
61XW	n/a	n/a
61XG	n/a	n/a
51XC	n/a	n/a
61XY	n/a	n/a
6122	32.13	30.33
61XX	n/a	n/a
51XD	n/a	n/a
511O	n/a	n/a
6101	31.95	28.16
611R	n/a	n/a
6108	32.06	30.64
511D	n/a	n/a
5104	31.94	30.81
52A1	n/a	n/a
5102	31.98	27.88
5202	32.12	30.02
51LC	n/a	n/a
521A	n/a	n/a
5201	32.25	27.79
51LA	n/a	n/a
5307	32.28	31.19
51LB	n/a	n/a
5304	32.71	30.74
5106	31.9	30.62
5105	32.06	30.73
5123	32.38	31.05
611G	n/a	n/a
61JD	n/a	n/a
6304	33.19	32.12
61LA	n/a	n/a
62LA	n/a	n/a
61LB	n/a	n/a
61LD	n/a	n/a
61LC	n/a	n/a
62LC	n/a	n/a
62LB	31.82	31.17
6202	31.82	31.02
621B	n/a	n/a
50XJ	n/a	n/a
50KE	n/a	n/a
50XD	n/a	n/a
50XH	n/a	n/a
5002	31.35	29.38
5004	n/a	n/a
50XG	n/a	n/a
5005	n/a	n/a
50XE	n/a	n/a
5001	31.62	30.03
50XA	n/a	n/a
501F	n/a	n/a
5109	31.78	30.65
5108	31.95	30.57
511F	n/a	n/a
6302	33.13	31.08
5303	33.01	27.87
5302	32.43	30.2
6303	34.72	32.63
5306	32.5	30.28
5301	31.32	29.43
5305	31.42	30.11
6301	31.28	27.95
6402	31.72	28.09
6401	31.66	28.26
6404	31.68	30.48
5402	31.68	30.18
5401	31.7	30
5003	n/a	n/a
511N	n/a	n/a
51XA	n/a	n/a
5203	31.97	30.77
5101	31.88	27.54
5107	31.77	30.17
51XB	n/a	n/a
511E	n/a	n/a
6007	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
70ZD	n/a	n/a
70ZA	n/a	n/a
7033	31.72	29.22
70ZH	n/a	n/a
60ZF	n/a	n/a
60ZA	n/a	n/a
702G	n/a	n/a
702F	n/a	n/a
70XI	n/a	n/a
70XJ	n/a	n/a
86ZG	n/a	n/a
70XH	n/a	n/a
70XK	n/a	n/a
7023	32.06	30.39
70XL	n/a	n/a
7022	32.06	28.95
70XA	n/a	n/a
70XG	n/a	n/a
70XF	n/a	n/a
7021	32.42	29.07
70XM	n/a	n/a
7102	31.68	30.71
6107	31.57	29.68
7133	31.65	30.35
711D	n/a	n/a
711A	n/a	n/a
7131	31.73	30.68
7101	31.73	29.98
7111	31.13	30.13
711B	n/a	n/a
711C	n/a	n/a
611A	n/a	n/a
7130	31.21	29.92
611B	n/a	n/a
611C	n/a	n/a
7205	31.25	29.64
721A	n/a	n/a
7201	31.44	30.34
7207	31.06	30.01
621E	n/a	n/a
7204	31.34	29.78
621F	n/a	n/a
7206	31.27	30.09
6203	31.64	30.62
621J	n/a	n/a
621I	n/a	n/a
7202	31.49	30.19
7203	31.47	30.15
7209	n/a	n/a
621A	n/a	n/a
6204	31.95	30.88
721B	n/a	n/a
8204	31.49	30.1
8202	31.49	30.51
8301	31.66	30.7
8302	31.69	30.39
6305	36.65	34.99
7403	n/a	n/a
7405	n/a	n/a
7402	n/a	n/a
7406	n/a	n/a
7407	n/a	n/a
7404	34.74	33.42
6403	31.73	30.93
6405	31.61	30.63
7401	n/a	n/a
70XE	n/a	n/a
70XD	n/a	n/a
7024	32.05	28.95
7034	32.12	30.06
70XC	n/a	n/a
70XB	n/a	n/a
60XA	n/a	n/a
60XF	n/a	n/a
7002	31.55	31.1
7005	30.95	30.09
7104	31.47	27.72
7135	32.24	30.39
61XK	n/a	n/a
61XH	n/a	n/a
7112	n/a	n/a
6121	32.19	30.45
6102	31.9	30.63
7132	31.75	31
6103	32.32	28.77
7129	31.28	30.73
61LF	n/a	n/a
7105	31.52	30.21
7126	31.43	30.6
6105	31.55	30.45
7103	31.59	30.62
7134	31.61	30.56
6104	31.61	29.34

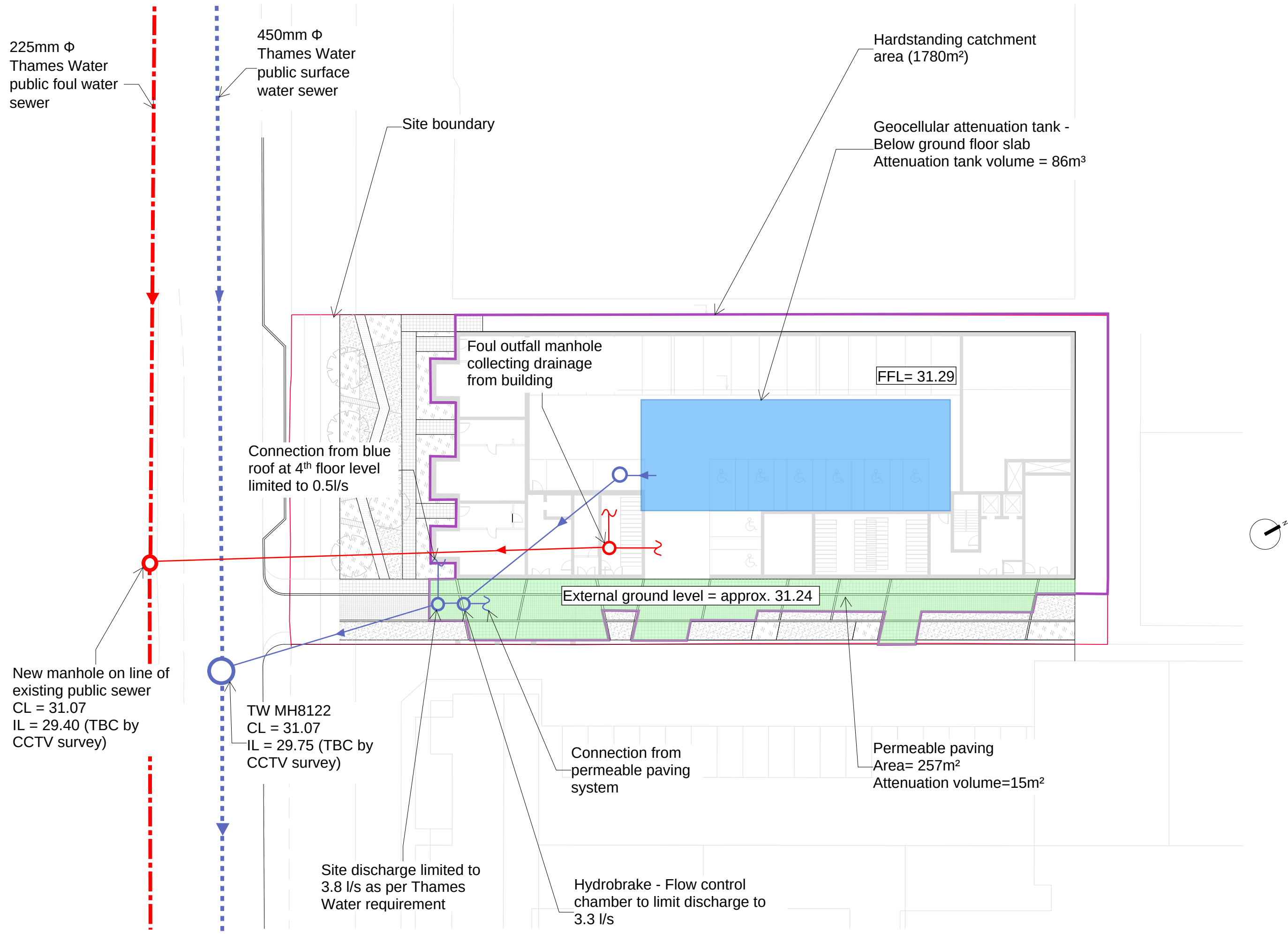
NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
9003	30.98	29.52
9002	31.05	29.38
9102	30.8	28.25
9103	30.77	29.18
80XE	n/a	n/a
80LR	n/a	n/a
80XB	n/a	n/a
80LQ	n/a	n/a
80LE	n/a	n/a
80A1	n/a	n/a
8007	31.87	29.11
80LP	n/a	n/a
80LN	n/a	n/a
80LM	n/a	n/a
80LS	n/a	n/a
90LN	n/a	n/a
90LM	n/a	n/a
9001	31.48	29.57
90LA	n/a	n/a
9004	31.17	30.03
8008	30.9	30.3
8001	31	29.4
811D	n/a	n/a
8107	30.98	30.46
8105	31.03	30.56
8102	31.02	29.75
8108	30.94	29.62
8104	30.96	29.64
8103	30.96	29.81
80HH	n/a	n/a
8122	n/a	n/a
80HJ	n/a	n/a
811B	n/a	n/a
801LD	n/a	n/a
81LA	n/a	n/a
811C	n/a	n/a
811A	n/a	n/a
8106	31.06	29.08
8024	31.9	30.9
80LF	n/a	n/a
8109	31.97	30.78
80LG	n/a	n/a
801A	n/a	n/a
801B	n/a	n/a
8121	30.9	29.6
911A	n/a	n/a
9101	30.91	28.74
80XK	n/a	n/a
8029	32.23	30.03
8004	31.35	29.14
80LB	n/a	n/a
80LC	n/a	n/a
8006	32.05	28.97
80LA	n/a	n/a
8013	32.87	31.22
80XL	n/a	n/a
8005	32.62	30.32
8026	32.1	29.92
7127	31.19	29.85
7106	31.24	29.61
7116	31.52	30.69
7122	31	28.8
7120	31.16	30.78
7107	31.17	29.69
7006	31.67	29.39
7113	31.19	30.34
7125	31.12	29.95
7123	31.07	30.32
7026	32.14	28.68
7027	32.14	30.19
7007	30.97	29.81
7010	31.25	30.19
7109	31.09	30.14
7025	30.94	30.31
7028	32.16	30.18
7115	30.98	30.27
7008	30.97	30.19
7114	31.08	30.35
7108	31.03	30.27
7121	31.05	30.34
7009	31	29.07
8028	30.94	30.13
8002	31.01	29.2
8009	30.93	30.25
8101	31.02	30
79FK	n/a	n/a
70ZI	n/a	n/a
7035	n/a	n/a
60ZB	n/a	n/a
70ZB	n/a	n/a
70ZC	n/a	n/a



Appendix G

Proposed Surface Water Strategy



Job	9 Nestles Avenue	Date	29.11.2018
Title	Preliminary drainage strategy-Below ground drainage	Eng.	SM
Job No.	2006	Rev.	P1
	Sheet	SK001	