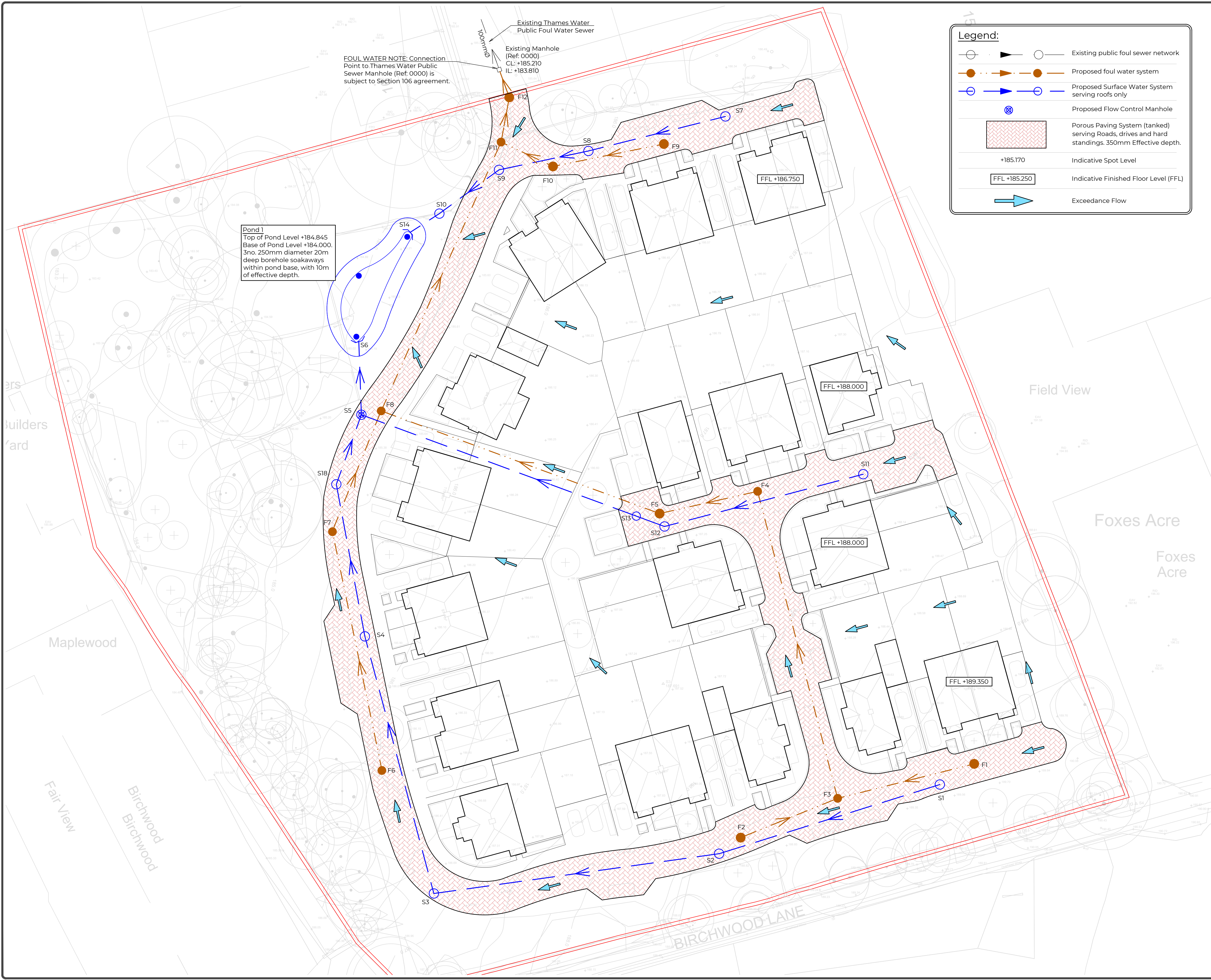


Appendix G: Drainage Strategy Layout & Supporting Calculations



GENERAL NOTES:

1. This drawing is to be read in conjunction with all relevant Architect's, Engineer's, Specialist Sub-Contractor's drawings and the specification.
2. All setting out to be in accordance with the Architect's drawings and any discrepancies between the Engineer's and Architect's drawings to be referred to the Architect before proceeding. Drawings should not be scaled for construction and fabrication purposes.
3. All work is to comply with current requirements of the Building Regulations & allied legislation whether referred to or not.
4. All materials should be used in compliance with the appropriate manufacturers recommendations.
5. The Contractor & Sub-Contractors must ensure that they have the latest issued drawings and details before commencing the relevant work.
6. Main Contractor to provide and fit suitable bracing and propping for all elements in the temporary condition during the construction stage, such as to ensure structural stability at all times.
7. In case of any discrepancies between drawings or a lack of dimensions required AWA should be contacted before work proceeds.
8. All dimensions indicated are in millimetres and all levels are in metres (Unless noted otherwise).
9. Electronic drawing information (2D or 3D) is for information only. Whilst it may be used for expediency during the design process it shall be deemed to be unchecked even where check boxes show it as checked. Electronic drawing information does not form part of the contract drawings or documentation set. PDF drawing information always takes precedence. Electronic drawing or PDF drawing information should not be scaled; only written dimensions should be used. Electronic drawing & PDF files may contain third party information and whilst every reasonable effort is made to avoid errors AWA do not accept any liability for errors in third party information. AWA do not accept liability for setting out. All setting out must be confirmed with the architect and correct setting out is the contractor's responsibility

DO NOT SCALE THIS DRAWING IF IN ANY DOUBT ASK

P1	26.06.25	Preliminary Issue for Information	CW	SW
REV	DATE	REVISED	REV BY	CHK BY
This drawing is the copyright of Andrew Waring Associates. It may not be copied, altered or reproduced in any way without their written authority. Drawings must be checked on site and not scaled from this drawing.				
a comment				
 Andrew Waring Associates		Consulting Engineers STRUCTURAL - CIVIL - MATHS		 02796 150407 0225 250088 0225 250088 www.andrewwarings.com
ARCHITECT		ECE Architecture		
CLIENT		Sigma Homes Ltd		
JOB TITLE		Land at Mount Avenue, Chaldon, Caterham, CR3 5BB		
DWG TITLE		Preliminary Drainage Strategy Layout		
STATUS		PRELIMINARY		
DWG NO		14219 / D / 100		REV P1
SCALE	DATE	DRAWN BY	CHECKED BY	
1:250 @ A1 uno	June 2025	CW	SW/CB	

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Diameter (m)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S1	0.032	1.350	Type C	189.368	187.996	1.222	532155.530	154983.636
S2	0.016	1.350	Type C	188.645	187.214	1.281	532123.880	154973.712
S3	0.024	1.350	Type C	187.743	186.319	1.274	532082.979	154968.001
S4	0.024	1.350	Type C	187.034	185.652	1.232	532070.862	155004.420
S18	0.000	1.350	Type C	186.628	185.087	1.391	532068.993	155026.701
S11	0.052	1.350	Type C	187.726	186.376	1.200	532144.551	155028.147
S12	0.000	1.350	Type C	186.937	185.583	1.204	532112.671	155019.759
S13	0.000	1.200	Type B	186.853	184.896	1.806	532110.744	155026.652
S17	0.307	0.600	Unknown	185.218	184.062	0.856	532071.448	155038.434
S5	0.000	1.350	Type B	186.449	184.049	2.100	532071.943	155035.539
S6	0.000	0.000	Type C	184.845	184.000	0.545	532072.011	155047.244
S7	0.023	1.350	Type C	186.308	184.948	1.211	532124.782	155079.470
S8	0.012	1.350	Type C	185.783	184.287	1.346	532105.289	155073.860
S9	0.002	1.350	Type C	185.688	184.156	1.382	532092.312	155071.811
S10	0.018	1.350	Type C	185.255	184.050	1.055	532083.769	155065.533
S14	0.000	0.000	Type C	184.845	184.000	0.695	532079.586	155062.847
S15	0.000	0.000	Type C	184.845	183.999	0.696	532069.996	155053.939
S16	0.000	0.750	Unknown	184.637	183.950	0.537	532059.999	155050.855

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	S1	187.996	S2	187.214	Circ	0.15mØ	33.169	42.4	0.600	1.222	1.281
1.001	S2	187.214	S3	186.319	Circ	0.15mØ	41.297	46.1	0.600	1.281	1.274
1.002	S3	186.319	S4	185.652	Circ	0.15mØ	38.382	57.5	0.600	1.274	1.232
1.003	S4	185.652	S18	185.087	Circ	0.15mØ	22.360	39.6	0.600	1.232	1.391
1.004	S18	185.087	S5	184.199	Circ	0.15mØ	9.318	10.5	0.600	1.391	2.100
2.000	S11	186.376	S12	185.583	Circ	0.15mØ	32.965	41.6	0.600	1.200	1.204
2.001	S12	185.583	S13	184.896	Circ	0.15mØ	7.157	10.4	0.600	1.204	1.806
2.002	S13	184.896	S5	184.199	Circ	0.15mØ	39.805	57.1	0.600	1.806	2.100
3.000	S17	184.062	S5	184.049	Circ	0.3mØ	2.936	238.0	0.600	0.856	2.100
1.005	S5	184.049	S6	184.000	Circ	0.3mØ	11.705	238.0	0.600	2.100	0.545
1.006	S6	184.000	S15	183.999	Circ	0.3mØ	6.992	6991.8	0.600	0.545	0.546
4.000	S7	184.948	S8	184.287	Circ	0.15mØ	20.285	30.7	0.600	1.211	1.346
4.001	S8	184.287	S9	184.156	Circ	0.15mØ	13.138	100.0	0.600	1.346	1.382
4.002	S9	184.156	S10	184.050	Circ	0.15mØ	10.602	100.0	0.600	1.382	1.055
4.003	S10	184.050	S14	184.000	Circ	0.15mØ	4.971	100.0	0.600	1.055	0.695
4.004	S14	184.000	S15	183.999	Circ	0.3mØ	13.089	13088.6	0.600	0.545	0.546
1.007	S15	183.999	S16	183.950	Circ	0.15mØ	10.462	213.5	0.600	0.696	0.537

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
Permeable Paving1	S17	231.218	185.218	184.788	0.00000000	2.00	532140.567	154981.793

Outfall Details

Outfall Manhole S16 : Free Discharge

Flow Control Details

Controls within Manhole S17

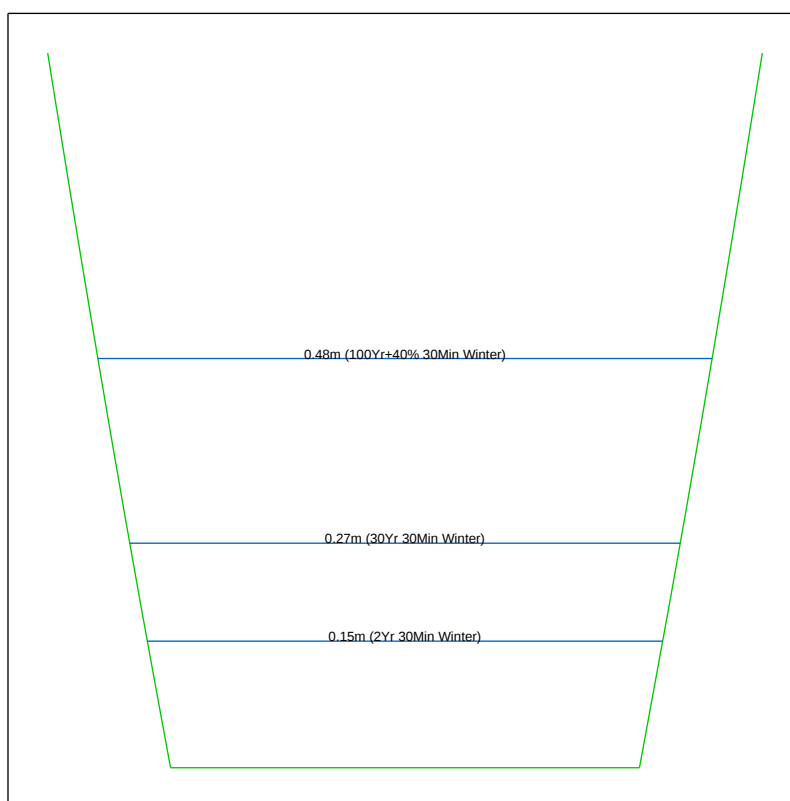
Orifice Control

Invert Offset (m)	Orifice Diameter (m)	Discharge Coeff
0.000	0.050	0.600

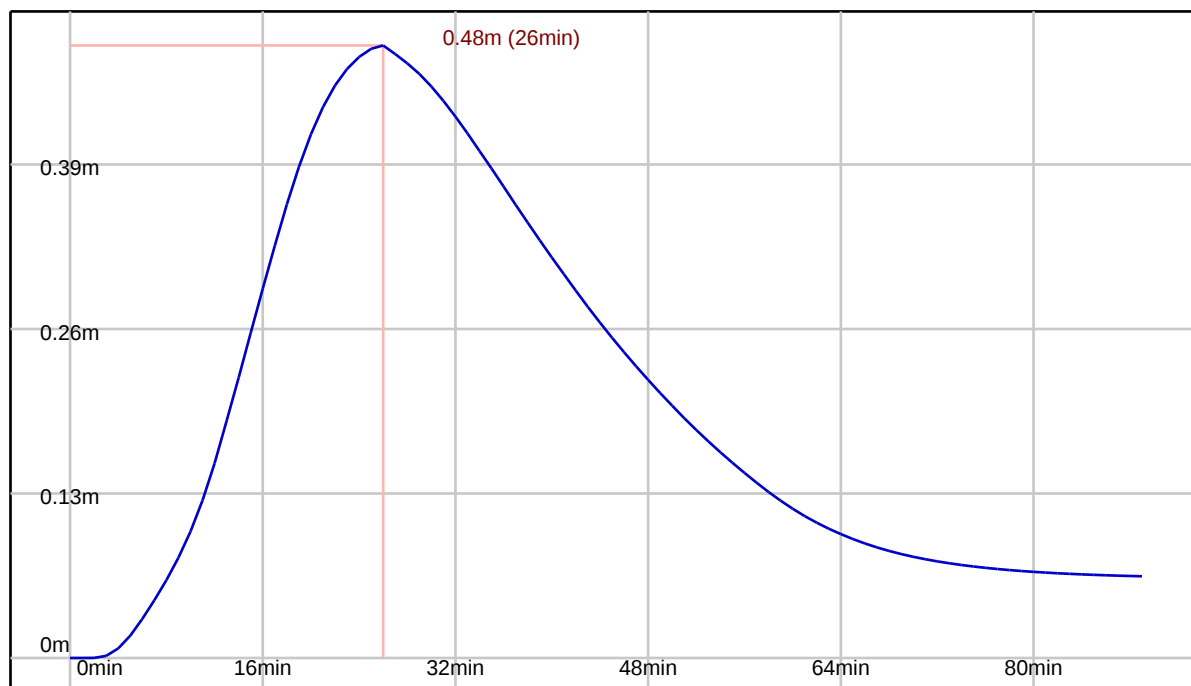
Pond Structure at Manhole S15

Pond Invert (m)	Max Depth (m)	Volume To Water Level (m3)	Water Level (m)	Freeboard (m)	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
184.000	0.845	43.174	184.545	0.300	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S15



Pond at S15 (100Yr+40% 30Min Winter)

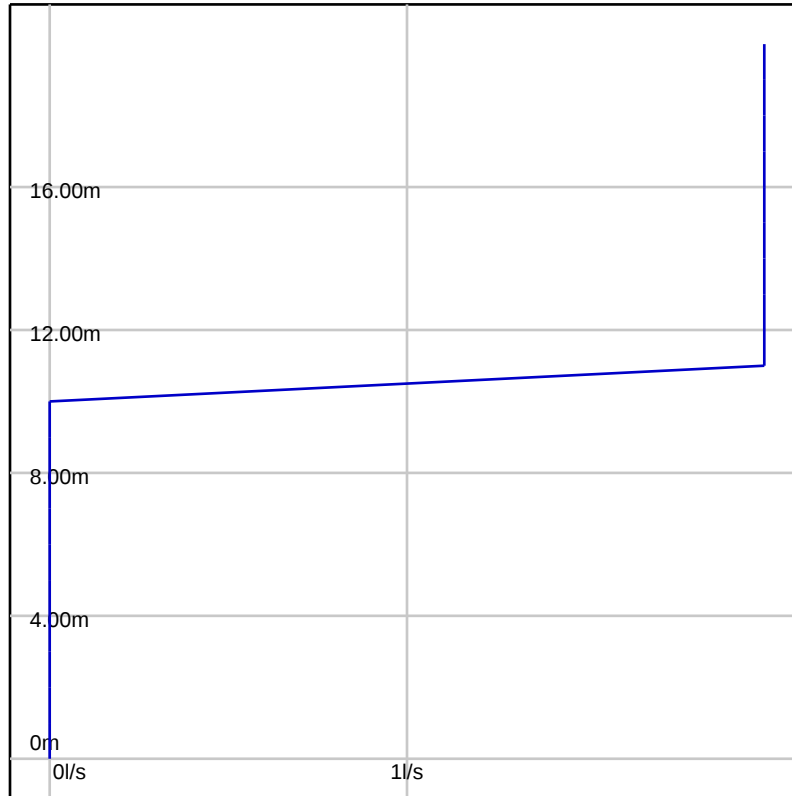


Controls within Manhole S16

Depth/Flow Control at

Invert Offset (m)	Depth (m)	Flow (l/s)
0.000		
	0.000	0.000
	1.000	0.000
	2.000	0.000
	3.000	0.000
	4.000	0.000
	5.000	0.000
	6.000	0.000
	7.000	0.000
	8.000	0.000
	9.000	0.000
	10.000	0.000
	11.000	2.000
	12.000	2.000
	13.000	2.000
	14.000	2.000
	15.000	2.000
	16.000	2.000
	17.000	2.000
	18.000	2.000
	19.000	2.000
	20.000	2.000

Depth/Flow Control at S16



Simulation Settings

FSR: M5-60=20.00, R=0.35, Locale=England and Wales

Summer (Cv: 0.75), Winter (Cv: 0.84)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440

Return Periods (yrs) + Climate Change: (2, +0%), (30, +0%), (100, +40%)

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
2Yr 15Min Winter	40.580	0.00	0.11	30Yr 360Min Summer	8.493	0.00	0.03
2Yr 15Min Summer	40.580	0.00	0.11	30Yr 360Min Winter	8.493	0.00	0.03
2Yr 30Min Winter	26.436	0.00	0.10	30Yr 480Min Summer	6.855	0.00	0.02
2Yr 30Min Summer	26.436	0.00	0.10	30Yr 480Min Winter	6.855	0.00	0.02
2Yr 60Min Winter	16.649	0.00	0.10	30Yr 600Min Summer	5.801	0.00	0.01
2Yr 60Min Summer	16.649	0.00	0.10	30Yr 600Min Winter	5.801	0.00	0.01
2Yr 120Min Summer	10.310	0.00	0.08	30Yr 720Min Summer	5.059	0.00	0.01
2Yr 120Min Winter	10.310	0.00	0.08	30Yr 720Min Winter	5.059	0.00	0.01
2Yr 180Min Winter	7.767	0.00	0.06	30Yr 960Min Summer	4.074	0.00	0.01
2Yr 180Min Summer	7.767	0.00	0.07	30Yr 960Min Winter	4.074	0.00	0.01
2Yr 240Min Winter	6.351	0.00	0.05	30Yr 1440Min Summer	2.998	0.00	0.00
2Yr 240Min Summer	6.351	0.00	0.05	30Yr 1440Min Winter	2.998	0.00	0.00
2Yr 360Min Winter	4.771	0.00	0.04	100Yr+40% 15Min Summer	131.851	0.00	0.11
2Yr 360Min Summer	4.771	0.00	0.04	100Yr+40% 15Min Winter	131.851	0.00	0.09
2Yr 480Min Summer	3.893	0.00	0.03	100Yr+40% 30Min Summer	88.566	0.00	0.10
2Yr 480Min Winter	3.893	0.00	0.03	100Yr+40% 30Min Winter	88.566	0.00	0.05
2Yr 600Min Winter	3.324	0.00	0.02	100Yr+40% 60Min Summer	56.713	0.00	0.14
2Yr 600Min Summer	3.324	0.00	0.02	100Yr+40% 60Min Winter	56.713	0.00	0.15
2Yr 720Min Summer	2.921	0.00	0.02	100Yr+40% 120Min Summer	35.004	0.00	0.15
2Yr 720Min Winter	2.921	0.00	0.02	100Yr+40% 120Min Winter	35.004	0.00	0.15
2Yr 960Min Summer	2.382	0.00	0.01	100Yr+40% 180Min Summer	25.973	0.00	0.14
2Yr 960Min Winter	2.382	0.00	0.01	100Yr+40% 180Min Winter	25.973	0.00	0.14
2Yr 1440Min Winter	1.787	0.00	0.00	100Yr+40% 240Min Summer	20.877	0.00	0.13
2Yr 1440Min Summer	1.787	0.00	0.00	100Yr+40% 240Min Winter	20.877	0.00	0.13
30Yr 15Min Winter	72.682	0.00	0.14	100Yr+40% 360Min Summer	15.365	0.00	0.12
30Yr 15Min Summer	72.682	0.00	0.11	100Yr+40% 360Min Winter	15.365	0.00	0.11
30Yr 30Min Summer	48.363	0.00	0.15	100Yr+40% 480Min Summer	12.341	0.00	0.05
30Yr 30Min Winter	48.363	0.00	0.17	100Yr+40% 480Min Winter	12.341	0.00	0.05
30Yr 60Min Summer	30.811	0.00	0.20	100Yr+40% 600Min Summer	10.402	0.00	0.02
30Yr 60Min Winter	30.811	0.00	0.21	100Yr+40% 600Min Winter	10.402	0.00	0.02
30Yr 120Min Summer	19.036	0.00	0.13	100Yr+40% 720Min Summer	9.042	0.00	0.01
30Yr 120Min Winter	19.036	0.00	0.14	100Yr+40% 720Min Winter	9.042	0.00	0.01
30Yr 180Min Winter	14.191	0.00	0.09	100Yr+40% 960Min Summer	7.241	0.00	0.01
30Yr 180Min Summer	14.191	0.00	0.09	100Yr+40% 960Min Winter	7.241	0.00	0.01
30Yr 240Min Summer	11.467	0.00	0.06	100Yr+40% 1440Min Winter	5.284	0.00	0.00
30Yr 240Min Winter	11.467	0.00	0.06	100Yr+40% 1440Min Summer	5.284	0.00	0.00

Simulation Results

Return Period Yrs: 2.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	188.042	0.047	5.906		OK
S2	15 min Winter	9	187.273	0.059	8.497		OK
S3	15 min Winter	9	186.398	0.079	12.939		OK
S4	15 min Winter	9	185.741	0.089	17.191		OK
S18	15 min Winter	9	185.145	0.057	17.215		OK
S11	15 min Winter	8	186.441	0.065	9.755		OK
S12	15 min Winter	8	185.625	0.042	9.613		OK
S13	15 min Winter	9	184.962	0.066	9.434		OK
S17	600 min Winter	422	184.371	0.309	2.702		Surcharged
S5	15 min Winter	9	184.193	0.143	26.736		OK
S6	15 min Summer	11	184.183	0.183	23.329		OK
S7	15 min Winter	8	184.984	0.036	4.245		OK
S8	15 min Winter	8	184.348	0.061	6.425		OK
S9	15 min Winter	9	184.220	0.064	6.677		OK
S10	30 min Winter	23	184.149	0.100	2.926		OK
S14	30 min Winter	21	184.152	0.152	4.613		OK
S15	30 min Winter	22	184.150	0.150	15.510		Surcharged
S16	30 min Winter	21	184.065	0.115	15.571		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	8	S1	S2	0.053	1.049	5.808	0.212	OK
1.001	15 min Winter	9	S2	S3	0.069	1.094	8.643	0.330	OK
1.002	15 min Winter	9	S3	S4	0.084	1.272	13.013	0.555	OK
1.003	15 min Winter	9	S4	S18	0.073	2.005	17.215	0.608	OK
1.004	15 min Winter	9	S18	S5	0.057	2.768	17.189	0.311	OK
2.000	15 min Winter	8	S11	S12	0.053	1.701	9.613	0.348	OK
2.001	15 min Winter	9	S12	S13	0.054	1.694	9.517	0.172	OK
2.002	15 min Winter	9	S13	S5	0.066	1.272	9.547	0.405	OK
3.000	15 min Winter	10	S17	S5	0.137	0.310	1.138	0.016	OK
1.005	15 min Winter	10	S5	S6	0.158	0.926	28.497	0.398	OK
1.006	15 min Summer	11	S6	S15	0.152	1.398	40.507	3.226	OK
4.000	15 min Winter	8	S7	S8	0.049	0.838	4.193	0.130	OK
4.001	15 min Winter	9	S8	S9	0.063	0.905	6.279	0.354	OK
4.002	15 min Winter	9	S9	S10	0.075	0.766	6.758	0.381	OK
4.003	30 min Winter	21	S10	S14	0.125	0.700	7.641	0.431	OK
4.004	30 min Winter	21	S14	S15	0.150	0.557	7.262	0.806	OK
1.007	30 min Winter	22	S15	S16	0.133	0.951	15.571	1.291	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving1	600 min Winter	418	184.857	0.069	2.704		OK

Return Period Yrs: 30.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	188.060	0.064	10.583		OK
S2	15 min Winter	9	187.296	0.082	15.189		OK
S3	15 min Winter	9	186.440	0.121	23.154		OK
S4	15 min Winter	10	185.853	0.201	27.943		Surcharged
S18	15 min Summer	9	185.164	0.077	28.430		OK
S11	15 min Winter	8	186.468	0.092	17.479		OK
S12	15 min Winter	8	185.640	0.057	17.241		OK
S13	15 min Winter	9	184.991	0.094	16.844		OK
S17	360 min Winter	272	184.864	0.802	4.516		Surcharged
S5	30 min Winter	22	184.267	0.218	20.384		OK
S6	30 min Winter	22	184.267	0.267	20.372		OK
S7	15 min Winter	8	184.997	0.049	7.607		OK
S8	15 min Winter	8	184.374	0.087	11.530		OK
S9	30 min Winter	21	184.275	0.119	5.328		OK
S10	30 min Winter	22	184.271	0.221	6.156		Surcharged
S14	30 min Winter	23	184.265	0.265	5.188		OK
S15	30 min Winter	23	184.266	0.266	22.251		Surcharged
S16	30 min Winter	23	184.087	0.137	23.792		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	8	S1	S2	0.073	1.221	10.436	0.382	OK
1.001	15 min Winter	9	S2	S3	0.102	1.239	15.460	0.590	OK
1.002	15 min Winter	9	S3	S4	0.135	1.402	23.307	0.994	OK
1.003	15 min Winter	10	S4	S18	0.113	2.139	28.621	1.011	OK
1.004	15 min Summer	9	S18	S5	0.077	3.171	28.787	0.521	OK
2.000	15 min Winter	8	S11	S12	0.074	1.970	17.241	0.624	OK
2.001	15 min Winter	9	S12	S13	0.075	1.947	17.102	0.308	OK
2.002	15 min Winter	9	S13	S5	0.094	1.465	17.120	0.727	OK
3.000	30 min Winter	39	S17	S5	0.212	0.508	3.323	0.046	OK
1.005	30 min Winter	22	S5	S6	0.242	0.893	37.040	0.517	OK
1.006	30 min Winter	23	S6	S15	0.266	1.085	36.296	2.891	OK
4.000	15 min Winter	8	S7	S8	0.068	0.968	7.531	0.234	OK
4.001	30 min Winter	20	S8	S9	0.089	0.990	8.911	0.503	OK
4.002	30 min Winter	21	S9	S10	0.135	0.779	9.485	0.535	OK
4.003	15 min Summer	10	S10	S14	0.150	1.089	16.749	0.945	Surcharged
4.004	30 min Winter	23	S14	S15	0.266	0.670	12.004	1.333	OK
1.007	30 min Winter	23	S15	S16	0.143	1.367	23.792	1.973	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving1	360 min Winter	272	184.911	0.123	4.507		OK

Return Period Yrs: 100.0

Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	188.087	0.092	19.200		OK
S2	15 min Winter	11	187.595	0.381	17.605		Surcharged
S3	15 min Winter	11	187.121	0.802	27.884		Surcharged
S4	15 min Winter	11	186.238	0.586	35.571		Surcharged
S18	15 min Winter	11	185.175	0.088	36.117		OK
S11	15 min Winter	9	186.662	0.286	29.864		Surcharged
S12	15 min Winter	10	185.658	0.075	27.964		OK
S13	15 min Winter	11	185.170	0.274	26.561		Surcharged
S17	480 min Winter	385	184.988	0.926	4.869		Flood Risk
S5	30 min Winter	25	184.500	0.451	37.594		Surcharged
S6	30 min Winter	25	184.488	0.488	37.587		Surcharged
S7	15 min Winter	8	185.016	0.068	13.801		OK
S8	15 min Winter	10	184.599	0.312	16.858		Surcharged
S9	30 min Winter	20	184.505	0.349	11.929		Surcharged
S10	30 min Winter	26	184.488	0.438	4.732		Surcharged
S14	30 min Winter	26	184.485	0.485	4.746		Surcharged
S15	30 min Winter	26	184.484	0.484	28.196		Surcharged
S16	15 min Summer	16	184.100	0.150	29.768		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	8	S1	S2	0.121	1.361	18.970	0.694	OK
1.001	15 min Winter	8	S2	S3	0.150	1.422	23.611	0.900	Surcharged
1.002	15 min Winter	12	S3	S4	0.150	1.549	27.371	1.167	Surcharged
1.003	15 min Winter	11	S4	S18	0.119	2.401	36.117	1.275	OK
1.004	15 min Winter	11	S18	S5	0.119	3.305	36.123	0.654	OK
2.000	15 min Winter	10	S11	S12	0.113	2.072	28.091	1.017	OK
2.001	15 min Winter	10	S12	S13	0.113	2.143	28.043	0.506	OK
2.002	15 min Winter	11	S13	S5	0.150	1.483	25.785	1.095	Surcharged
3.000	120 min Winter	122	S17	S5	0.300	0.587	4.864	0.068	Surcharged
1.005	15 min Winter	11	S5	S6	0.300	0.928	58.535	0.817	Surcharged
1.006	15 min Winter	11	S6	S15	0.300	1.646	59.486	4.738	Surcharged
4.000	15 min Winter	8	S7	S8	0.109	1.053	13.689	0.425	OK
4.001	15 min Winter	9	S8	S9	0.150	1.100	17.515	0.988	Surcharged
4.002	15 min Winter	10	S9	S10	0.150	0.978	17.288	0.975	Surcharged
4.003	15 min Winter	9	S10	S14	0.150	1.461	25.819	1.456	Surcharged
4.004	15 min Winter	11	S14	S15	0.300	0.999	24.705	2.743	Surcharged
1.007	30 min Winter	26	S15	S16	0.150	1.947	34.415	2.854	Surcharged

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
Permeable Paving1	480 min Winter	385	185.042	0.254	4.922		OK

Foul Water Flow Calculation.

Job no.: 14219.

Site: Land at Mount Avenue, Chaldon, Caterham, Surrey, CR3 5BB.

Date: June 2025

By: SW. Chk: MK.

Calculation: Sewer Sector Guidance: 4,000 l/s / per dwelling / per day

Site Proposals: 30 dwellings

$$4,000 \times 30 \text{ dwellings} = 120,000$$

$$120,000 / 3,600 = 33.33333$$

$$33.33333 / 24 = 1.388888$$

The total foul water flow generated by the 30 dwellings is 1.39 l/s

Appendix H: SuDS Maintenance

Detention Basin	
Regular Maintenance	Frequency
Remove litter and debris	Monthly
Cut grass - for spillways and access routes	Monthly (during growing season, or as required)
Cut grass - meadow grass in and around basin	Half yearly (spring - before nesting season, and autumn)
Manage other vegetation and remove nuisance plants	Monthly (as start, then as required)
Inspect inlets, outlets and overflows for blockages and clear if required	Monthly
Inspect banksides, structures, pipeqork etc for evidence of physical damage	Monthly
Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies	Monthly (for first year) then annually or as required
Check any mechanical devices (Flow control, penstock etc)	Annually
Tidy all dead growth before start of growing season	Annually
Remove sediment from inlets, outlet and forebay	Annually (or as required)
Manage wetland plants in outer pool - where provided	Annually
Occasional tasks	Frequency
Reseed areas of poor vegetation growth	As required
Prune and trim any trees and remove cuttings	Every 2 years (or as required)
Remove sediment from inlets, outlet and forebay and main basin when required	Every 5 years or as required (subject to effective pre-treatment)
Remedial work	Frequency
Repair erosion or other damage by reseeding or re-turfing	As required
Realignment of rip-rap	As required

Repair/rehabilitate inlets, outlets and overflows	As required
Relevel uneven surfaces and reinstate design levels	As required

Pervious Pavements - Blocks	
Regular Maintenance	Frequency
Brush regularly and remove litter and sweepings from all hard surfaces - pay attention to areas where adjacent impermeable surfaces drain as silt accumulation is more likely in these locations	3 Monthly, then reduced based on site specific observations
Maintain adjacent planted areas to ensure washout of soil onto permeable surface does not occur. Clean and remediate any spillage to prevent clogging	3 Monthly, then as required under general landscape maintenance
Snow removal, standard road salt used as de-icing medium; no abrasives such as sands, grits or cinders shall be applied	As required in winter months
Occasional tasks	Frequency
Brush and vacuum surface once a year to prevent silt blockage and enhance design life	Annually following leaf fall
Inspect diffuser units with CCTV to check for siltation; review upstream silt management if required	Every 5 years, or as required
Remedial work	Frequency
Remedial works to correct rutting, depressions, cracked/broken blocks which are hazardous, replacement of jointing material	As required
Rehabilitation of surface and upper substructure layers - jet washing and suction cleaning to improve pavement efficiency	10 - 15 years depending on performance and efficiency of regular maintenance regime

Chambers/Flow control and Pipes	
Regular Maintenance	Frequency
Check orifice unit is free of obstruction and remove debris from screen	Monthly for 3 months, then every 6 months
Remove cover and inspect chambers, ensuring water is flowing freely and exit routes are unobstructed. Remove any litter and debris.	3 monthly and following leaf fall
Occasional tasks	Frequency

Inspect channel bases, sumps, gullies and inspection chambers for silt accumulation. Vacuum suction removal of silt in ControFlow sumps. Jet wash pipes as required to maintain flow.	Annually
Remedial work	Frequency
Repair physical damage to below ground pipes, manholes and inspection chambers	As required

Vegetated Headwall	
Regular Maintenance	Frequency
Check pipe outlet is free of obstruction and no visible displacement of pipework	Every 6 months
Remove debris and litter from apron and inspect level of silt build up Undertake inspection after leaf fall in autumn	6 monthly, following leaf fall
Occasional tasks	Frequency
Clean silt from in front of outfall pipe if it has built up above pipe invert	As required
Trim grass to desired level to keep tidy, and remove nuisance weeds	6 monthly
Check for burrowing mammals and mark any locations where present, for controlled rehoming	6 monthly
Remedial work	Frequency
Report any structural defects, subsidence etc to the wall manufacturer for advice	As required
Replace in event of significant structural failure	As required

Silt Trap	
Regular Maintenance	Frequency
Remove cover and inspect chambers, ensuring water is flowing freely and exit routes are unobstructed. Undertake inspection after leaf fall in autumn	Monthly and following heavy storms
Clear roof guttering and surfaces of leaves and debris	Autumn following leaf fall

Occasional tasks	Frequency
Remove and empty filter basket of any silt and debris, empty any additional build up within the sump unit.	Monthly for 3 months, then every 6 months
Remedial work	Frequency
Repair physical damage to manhole, cover and internal filter units	As required