Dimensions

Exceedance Level (m)	68.600
Depth (m)	1.200
Base Level (m)	67.400
Freeboard (mm)	0
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	3.083
Total Volume (m³)	360.314

Depth (m)	Area (m²)	Volume (m³)
0.000	194.277	0.000
0.100	209.703	20.194
0.200	226.004	41.974
0.300	242.870	65.413
0.400	260.301	90.567
0.500	278.298	117.491
0.600	296.860	146.244
0.700	315.987	176.882
0.800	335.680	209.460
0.900	355.937	244.036
1.000	376.761	280.666
1.100	398.149	319.407
1.200	420.103	360.314

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	S4-S6
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	S38-S6
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S6-S7
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	27.051
Friction Scheme	Manning's n
n	0.03

Porous Paving 4

Type : Tank

Dimensions

Exceedance Level (m)	68.641
Depth (m)	0.580
Base Level (m)	68.061
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	5.140

Depth (m)	Area (m²)	Volume (m³)
0.000	38.075	0.000
0.450	38.075	5.140

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	94.53m - 1.013
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP4 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	68.061

Advanced

Perimeter	Rectangular
Length (m)	9.132
Friction Scheme	Manning's n
n	0.03

Porous Paving 5

Type : Tank

Dimensions

Exceedance Level (m)	67.711
Depth (m)	0.580
Base Level (m)	67.131
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	5.059

Depth (m)	Area (m²)	Volume (m³)
0.000	37.473	0.000
0.450	37.473	5.059

Inlets

Outlets

Outlet

Outgoing Connection	PP5 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	67.131

Advanced

Perimeter	Circular
Length (m)	9.026

Porous Paving 6

Type : Tank

Dimensions

Exceedance Level (m)	67.711
Depth (m)	0.580
Base Level (m)	67.131
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	5.064

Depth (m)	Area (m²)	Volume (m³)
0.000	37.514	0.000
0.450	37.514	5.064

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	92.82m - 7.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP6 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	67.131

Advanced

Perimeter	Rectangular
Length (m)	9.017
Friction Scheme	Manning's n
n	0.03

Porous Paving 7

Type : Tank

Dimensions

Exceedance Level (m)	67.711
Depth (m)	0.580
Base Level (m)	67.131
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	6.763

Depth (m)	Area (m²)	Volume (m³)
0.000	50.099	0.000
0.450	50.099	6.763

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	51.58m - 7.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP7 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	67.131

Advanced

Perimeter	Rectangular
Length (m)	11.189
Friction Scheme	Manning's n
n	0.03

Porous Paving 1

Type : Tank

Dimensions

Exceedance Level (m)	70.521
Depth (m)	0.580
Base Level (m)	69.941
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	41.036

Depth (m)	Area (m²)	Volume (m³)
0.000	303.972	0.000
0.450	303.972	41.036

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	267.49m - 2.003
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP1 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	69.941

Advanced

Perimeter	Rectangular
Length (m)	56.693
Friction Scheme	Manning's n
n	0.03

Porous Paving 8

Type : Tank

Dimensions

Exceedance Level (m)	69.453
Depth (m)	0.580
Base Level (m)	68.873
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	35.311

Depth (m)	Area (m²)	Volume (m³)
0.000	261.562	0.000
0.450	261.562	35.311

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	128.25m - 3.000 128.31m - 3.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP8 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	68.873

Advanced

Perimeter	Rectangular
Length (m)	27.534
Friction Scheme	Manning's n
n	0.03

Porous Paving 9

Type : Tank

Dimensions

Exceedance Level (m)	74.483
Depth (m)	0.580
Base Level (m)	73.903
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	58.520

Depth (m)	Area (m²)	Volume (m³)
0.000	433.485	0.000
0.450	433.485	58.520

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	174.04m - 4.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP9 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	73.903

Advanced

Perimeter	Rectangular
Length (m)	85.070
Friction Scheme	Manning's n
n	0.03

Porous Paving 10

Type : Tank

Dimensions

Exceedance Level (m)	69.726
Depth (m)	0.580
Base Level (m)	69.146
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	10.858

Depth (m)	Area (m²)	Volume (m³)
0.000	80.431	0.000
0.450	80.431	10.858

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	122.37m - 6.002
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP10 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	69.146

Advanced

Perimeter	Rectangular
Length (m)	16.125
Friction Scheme	Manning's n
n	0.03

Porous Paving 11

Type : Tank

Dimensions

Exceedance Level (m)	69.670
Depth (m)	0.580
Base Level (m)	69.090
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	46.833

Depth (m)	Area (m²)	Volume (m³)
0.000	346.912	0.000
0.450	346.912	46.833

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	130.76m - 1.006 239.52m - 1.007
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP11 Oulet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	69.090

Advanced

Perimeter	Rectangular
Length (m)	55.140
Friction Scheme	Manning's n
n	0.03

Porous Paving 2

Type : Tank

Dimensions

Exceedance Level (m)	69.534
Depth (m)	0.580
Base Level (m)	68.954
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	15.833

Depth (m)	Area (m²)	Volume (m³)
0.000	117.284	0.000
0.450	117.284	15.833

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	276.92m - 1.009
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	PP2 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	68.954

Advanced

Perimeter	Rectangular
Length (m)	47.748
Friction Scheme	Manning's n
n	0.03

Porous Paving 3

Type : Tank

Dimensions

Exceedance Level (m)	68.641
Depth (m)	0.580
Base Level (m)	68.061
Freeboard (mm)	130
Initial Depth (m)	0.000
Porosity (%)	30
Average Slope (1:X)	0.00
Total Volume (m³)	5.123

Depth (m)	Area (m²)	Volume (m³)
0.000	37.949	0.000
0.450	37.949	5.123

Inlets

Outlets

Outlet

Outgoing Connection	PP3 Outlet
Outlet Type	Orifice

Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	68.061

Advanced

Perimeter	Circular
Length (m)	9.105

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Inflow Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
17.78m - 4.002	S28		Time of Concentration	0.002	100	0	100	0.002
24.60m - 5.002	S22		Time of Concentration	0.003	100	0	100	0.003
24.96m - 1.008	S9		Time of Concentration	0.002	100	0	100	0.002
26.22m - 2.000	S23		Time of Concentration	0.003	100	0	100	0.003
26.55m - 2.000	S23		Time of Concentration	0.003	100	10	110	0.003
27.52m - 5.001	S21		Time of Concentration	0.003	100	0	100	0.003
27.89m - 5.001	S21		Time of Concentration	0.003	100	0	100	0.003
29.70m - 2.002	S25		Time of Concentration	0.002	100	0	100	0.002
40m2 - 3.001	S38		Time of Concentration	0.004	100	0	100	0.004
40.24m - 2.001	S24		Time of Concentration	0.004	100	0	100	0.004
40.71m - 2.000	S23		Time of Concentration	0.004	100	0	100	0.004
45.71m - 1.006	S19		Time of Concentration	0.005	100	0	100	0.005
46.19m - 5.001	S21		Time of Concentration	0.005	100	0	100	0.005
47.41m - 1.005	S19		Time of Concentration	0.005	100	0	100	0.005
48.15m - 1.001	S2		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.002	S3		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.002	S3		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.007	S8		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.010	S13		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.011	S13		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.013	S16		Time of Concentration	0.005	100	10	110	0.005
48.15m - 1.014	S16		Time of Concentration	0.005	100	10	110	0.005
48.15m - 2.000	S23		Time of Concentration	0.005	100	10	110	0.005
48.15m - 2.000	S23		Time of Concentration	0.005	100	10	110	0.005

48.15m - 5.000	S20		Time of Concentration	0.005	100	10	110	0.005
48.15m - 6.000	S30		Time of Concentration	0.005	100	10	110	0.005
50.66m - 1.000	S1		Time of Concentration	0.005	100	10	110	0.006
50.66m - 1.001	S2		Time of Concentration	0.005	100	10	110	0.006
50.66m - 1.002	S3		Time of Concentration	0.005	100	10	110	0.006
50.66m - 1.009	S10		Time of Concentration	0.005	100	10	110	0.006
50.66m - 4.002	S28		Time of Concentration	0.005	100	10	110	0.006
50.66m - 4.002	S28		Time of Concentration	0.005	100	10	110	0.006
50.66m - 4.002	S28		Time of Concentration	0.005	100	10	110	0.006
50.66m - 4.002	S28		Time of Concentration	0.005	100	10	110	0.006
50.66m - 4.003	S29		Time of Concentration	0.005	100	10	110	0.006
50.66m - 6.002	S32		Time of Concentration	0.005	100	10	110	0.006
51.58m - 7.000	Porous Paving 7		Time of Concentration	0.005	100	0	100	0.005
53.88m - 6.000	S30		Time of Concentration	0.005	100	10	110	0.006
54.14m - 1.007	S8		Time of Concentration	0.005	100	0	100	0.005
54.14m - 1.013	S15		Time of Concentration	0.005	100	10	110	0.006
54.14m - 1.014	S16		Time of Concentration	0.005	100	10	110	0.006
54.14m - 1.014	S17		Time of Concentration	0.005	100	10	110	0.006
54.14m - 1.016	S17		Time of Concentration	0.007	100	10	110	0.007
54.14m - 2.000	S23		Time of Concentration	0.005	100	10	110	0.006
54.14m - 2.001	S24		Time of Concentration	0.005	100	10	110	0.006
54.14m - 5.000	S20		Time of Concentration	0.005	100	0	100	0.005
54.14m - 5.000	S20		Time of Concentration	0.005	100	10	110	0.006
54.14m - 6.001	S31		Time of Concentration	0.005	100	10	110	0.006
54.15m - 2.002	S25		Time of Concentration	0.005	100	10	110	0.006

54.15m - 5.001	S21		Time of Concentration	0.005	100	10	110	0.006
54.15m - 5.001	S21		Time of Concentration	0.005	100	10	110	0.006
55.29m - 5.000	S20		Time of Concentration	0.006	100	0	100	0.006
55.60m - 1.001	S2		Time of Concentration	0.006	100	10	110	0.006
55.60m - 1.009	S10		Time of Concentration	0.006	100	10	110	0.006
55.60m - 6.002	S32		Time of Concentration	0.006	100	10	110	0.006
56.23m - 1.007	S8		Time of Concentration	0.006	100	0	100	0.006
56.44m - 1.005	S19		Time of Concentration	0.006	100	10	110	0.006
56.44m - 1.006	S19		Time of Concentration	0.006	100	10	110	0.006
56.44m - 1.006	S19		Time of Concentration	0.006	100	10	110	0.006
56.44m - 1.006	S19		Time of Concentration	0.005	100	10	110	0.006
56.44m - 4.002	S28		Time of Concentration	0.006	100	10	110	0.006
56.44m - 4.002	S28		Time of Concentration	0.006	100	10	110	0.006
56.44m - 4.002	S28		Time of Concentration	0.006	100	10	110	0.006
57.55m - 3.001	S38		Time of Concentration	0.006	100	10	110	0.006
57.55m - 3.001	S38		Time of Concentration	0.006	100	10	110	0.006
57.95m - 6.001	S32		Time of Concentration	0.009	100	0	100	0.009
57.96m - 1.002	S3		Time of Concentration	0.006	100	10	110	0.006
57.96m - 1.007	S8		Time of Concentration	0.006	100	10	110	0.006
57.96m - 1.013	S15		Time of Concentration	0.006	100	10	110	0.006
57.96m - 1.014	S17		Time of Concentration	0.006	100	10	110	0.006
57.96m - 4.000	S27		Time of Concentration	0.006	100	10	110	0.006
57.96m - 4.001	S26		Time of Concentration	0.006	100	10	110	0.006
57.96m - 5.000	S20		Time of Concentration	0.006	100	10	110	0.006
58.13m - 1.008	S9		Time of Concentration	0.006	100	10	110	0.006

62.17m - 1.007	S8		Time of Concentration	0.006	100	0	100	0.006
62.59m - 4.000	S27		Time of Concentration	0.006	100	10	110	0.007
63.02m - 5.001	S21		Time of Concentration	0.006	100	10	110	0.007
63.04m - 5.001	S21		Time of Concentration	0.006	100	10	110	0.007
65.46m - 2.000	S23		Time of Concentration	0.007	100	10	110	0.007
66.03m - 4.002	S28		Time of Concentration	0.007	100	10	110	0.007
66.03m - 4.003	S29		Time of Concentration	0.007	100	10	110	0.007
67.51m - 1.012	S14		Time of Concentration	0.007	100	0	100	0.007
68.61m - 4.000	S27		Time of Concentration	0.007	100	10	110	0.008
71.91m - 6.000	S30		Time of Concentration	0.007	100	0	100	0.007
72.00m - 7.000	S39		Time of Concentration	0.007	100	0	100	0.007
73.53m - 2.000	S23		Time of Concentration	0.007	100	0	100	0.007
74.05m - 1.016	S17		Time of Concentration	0.007	100	10	110	0.008
74.05m - 1.016	S44		Time of Concentration	0.007	100	10	110	0.008
74.05m - 4.000	S27		Time of Concentration	0.007	100	10	110	0.008
74.05m - 6.001	S31		Time of Concentration	0.007	100	10	110	0.008
74.55m - 1.015	S17		Time of Concentration	0.007	100	0	100	0.007
75.47m - 1.001	S2		Time of Concentration	0.008	100	0	100	0.008
75.60m - 1.015	S17		Time of Concentration	0.008	100	0	100	0.008
76.39m - 1.000	S1		Time of Concentration	0.008	100	10	110	0.008
77.20m - 1.013	S15		Time of Concentration	0.008	100	0	100	0.008
78.04m - 6.000	S30		Time of Concentration	0.008	100	0	100	0.008
79.93m - 1.015	S16		Time of Concentration	0.008	100	0	100	0.008
80.64m - 4.000	S27		Time of Concentration	0.008	100	10	110	0.009
81.15m - 4.003	S8		Time of Concentration	0.007	100	0	100	0.007

81.23m - 2.000	S23		Time of Concentration	0.008	100	10	110	0.009
84.88m - 5.000	S20		Time of Concentration	0.008	100	0	100	0.008
91.82m - 1.006	S19		Time of Concentration	0.010	100	0	100	0.010
92.32m - 4.002	S28		Time of Concentration	0.009	100	0	100	0.009
92.56m - 4.002	S28		Time of Concentration	0.009	100	0	100	0.009
92.82m - 7.000	Porous Paving 6		Time of Concentration	0.009	100	0	100	0.009
94.53m - 1.013	Porous Paving 4		Time of Concentration	0.009	100	0	100	0.009
98.38m - 1.003	S38		Time of Concentration	0.010	100	10	110	0.011
102.48m - 2.000	S23		Time of Concentration	0.010	100	0	100	0.010
112.27m - 4.000	S27		Time of Concentration	0.011	100	0	100	0.011
115.47m - 5.002	S22		Time of Concentration	0.012	100	0	100	0.012
120.48m - 2.000	S23		Time of Concentration	0.012	100	0	100	0.012
122.37m - 6.002	Porous Paving 10		Time of Concentration	0.016	100	0	100	0.016
123.57m - 1.016	S17		Time of Concentration	0.012	100	0	100	0.012
128.25m - 3.000	Porous Paving 8		Time of Concentration	0.013	100	0	100	0.013
128.31m - 3.000	Porous Paving 8		Time of Concentration	0.013	100	0	100	0.013
130.76m - 1.006	Porous Paving 11		Time of Concentration	0.012	100	0	100	0.012
133.57m - 2.000	S23		Time of Concentration	0.013	100	0	100	0.013
138.58m - 1.000	S1		Time of Concentration	0.014	100	0	100	0.014
140m2 - 3.001	S38		Time of Concentration	0.014	100	0	100	0.014
143.61m - 1.016	S44		Time of Concentration	0.014	100	0	100	0.014
147.87m - 5.002	S22		Time of Concentration	0.015	100	0	100	0.015
152.27m - 1.011	S13		Time of Concentration	0.015	100	0	100	0.015
154.34m - 5.001	S21		Time of Concentration	0.015	100	0	100	0.015
174.04m - 4.000	Porous Paving 9		Time of Concentration	0.017	100	0	100	0.017

187.59m - 1.010	S13		Time of Concentration	0.019	100	0	100	0.019
187.86m - 2.000	S24		Time of Concentration	0.019	100	0	100	0.019
189.19m - 4.001	S26		Time of Concentration	0.019	100	0	100	0.019
203.16m - 1.013	S16		Time of Concentration	0.020	100	0	100	0.020
203.74m - 1.001	S2		Time of Concentration	0.020	100	0	100	0.020
206.67m - 5.001	S21		Time of Concentration	0.021	100	0	100	0.021
206.75m - 7.000	S39		Time of Concentration	0.021	100	0	100	0.021
207.20m - 2.000	S23		Time of Concentration	0.021	100	0	100	0.021
220.69m - 1.016	S17		Time of Concentration	0.022	100	0	100	0.022
227.27m - 1.002	S3		Time of Concentration	0.023	100	0	100	0.023
231.63m - 2.001	S33		Time of Concentration	0.024	100	0	100	0.024
239.52m - 1.007	Porous Paving 11		Time of Concentration	0.025	100	0	100	0.025
260.34m - 1.000	S1		Time of Concentration	0.026	100	0	100	0.026
261.56m - 6.000	S30		Time of Concentration	0.026	100	0	100	0.026
267.49m - 2.003	Porous Paving 1		Time of Concentration	0.025	100	0	100	0.025
273.47m - 1.014	S17		Time of Concentration	0.027	100	0	100	0.027
276.92m - 1.009	Porous Paving 2		Time of Concentration	0.028	100	0	100	0.028
355.32m - 1.016	S45		Time of Concentration	0.032	100	0	100	0.032
367.70m - 5.000	S20		Time of Concentration	0.037	100	0	100	0.037
426.77m - 1.016	S41		Time of Concentration	0.041	100	0	100	0.041
472.96m - 4.002	S28		Time of Concentration	0.047	100	0	100	0.047
660m2 - 1.016	S47		Time of Concentration	0.066	100	0	100	0.066
TOTAL		**0.0**		**1.462**				**1.502**

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Network Design Criteria Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

FEH22 PD

Type: FEH

Site Location	GB 515628 133872 TQ 15628 33872
Return Period (years)	2.0
Rainfall Version	2022

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Network Design Criteria Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
0	0.000	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Outfall Details Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

Outfalls

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
S35	Free Discharge		

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Title: Rainfall Analysis Criteria	Motion: 84 North Street Guildford GU1 4AU		

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	0
Perform No Discharge Analysis	☐

Rainfall

FEH22

Type: FEH

Site Location	GB 516400 133950 TQ 16400 33950
Rainfall Version	2022
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0.000
30.0	40.000
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Title: UK and Ireland Rural Runoff Calculator	Motion: 84 North Street Guildford GU1 4AU		

FEH

Details

Site Location	GB 516400 133950 TQ 16400 33950
Rainfall Version	2022
Data Type	Catchment

Area (ha)	52.00
SAAR (mm)	784.0
SPRHOST (%)	46.18
URBEXT 2000	0.125
BFIHOST	0.34
FARL	1.000

Results

QMED Rural (L/s)	305.8
QMED Urban (L/s)	340.5

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Junctions Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH22: 2 years: +0 %: 15 mins: Summer	77.425	76.075	76.137	0.062	11.1	0.109	0.000	10.7	4.828	OK
S2	FEH22: 2 years: +0 %: 15 mins: Summer	76.428	75.078	75.142	0.064	20.0	0.114	0.000	19.3	8.848	OK
S3	FEH22: 2 years: +0 %: 15 mins: Summer	73.577	72.227	72.291	0.065	28.6	0.115	0.000	27.9	12.893	OK
S4	FEH22: 2 years: +0 %: 15 mins: Summer	70.521	69.171	69.260	0.089	59.4	0.158	0.000	57.9	28.056	OK
S7	FEH22: 2 years: +0 %: 15 mins: Summer	70.443	67.291	67.540	0.249	4.0	0.281	0.000	2.4	2.776	Surcharged
S8	FEH22: 2 years: +0 %: 15 mins: Summer	70.782	66.852	67.021	0.169	55.6	0.191	0.000	51.8	27.722	OK
S9	FEH22: 2 years: +0 %: 15 mins: Summer	69.939	66.586	66.800	0.214	87.5	0.242	0.000	83.0	43.886	OK
S10	FEH22: 2 years: +0 %: 15 mins: Summer	69.670	66.504	66.696	0.192	85.5	0.218	0.000	83.4	45.036	OK
S13	FEH22: 2 years: +0 %: 15 mins: Summer	69.534	66.113	66.196	0.083	9.6	0.094	0.000	8.6	8.366	OK
S14	FEH22: 2 years: +0 %: 15 mins: Summer	69.726	65.984	66.110	0.126	27.4	0.143	0.000	26.3	17.214	OK
S15	FEH22: 2 years: +0 %: 15 mins: Summer	69.639	65.934	66.054	0.120	30.4	0.136	0.000	29.1	18.835	OK
S16	FEH22: 2 years: +0 %: 15 mins: Summer	68.641	65.729	65.878	0.149	38.6	0.169	0.000	36.2	23.188	OK
S17	FEH22: 2 years: +0 %: 15 mins: Summer	67.070	65.504	65.595	0.091	61.7	0.103	0.000	60.8	35.550	OK
S19	FEH22: 2 years: +0 %: 15 mins: Summer	70.980	67.069	67.135	0.066	9.3	0.074	0.000	8.4	6.469	OK
S20	FEH22: 2 years: +0 %: 15 mins: Summer	74.063	72.713	72.777	0.064	15.2	0.113	0.000	14.9	6.601	OK
S21	FEH22: 2 years: +0 %: 15 mins: Summer	73.176	71.826	71.906	0.080	29.8	0.141	0.000	28.9	13.043	OK
S22	FEH22: 2 years: +0 %: 15 mins: Summer	71.057	69.707	69.773	0.066	34.8	0.116	0.000	34.0	15.627	OK
S23	FEH22: 2 years: +0 %: 15 mins: Summer	75.795	74.445	74.504	0.059	21.8	0.104	0.000	21.5	9.476	OK
S24	FEH22: 2 years: +0 %: 15 mins: Summer	73.760	72.410	72.478	0.068	27.4	0.120	0.000	26.7	12.037	OK
S25	FEH22: 2 years: +0 %: 15 mins: Summer	71.951	70.601	70.670	0.069	28.4	0.121	0.000	27.9	12.778	OK

S26	FEH22: 2 years: +0 %: 15 mins: Summer	74.483	73.133	73.198	0.065	15.1	0.115	0.000	14.7	6.713	OK
S27	FEH22: 2 years: +0 %: 15 mins: Summer	75.354	74.004	74.055	0.051	10.1	0.091	0.000	9.9	4.393	OK
S28	FEH22: 2 years: +0 %: 15 mins: Summer	74.123	72.573	72.663	0.090	38.5	0.158	0.000	37.6	17.068	OK
S29	FEH22: 2 years: +0 %: 15 mins: Summer	71.524	70.174	70.231	0.057	40.2	0.101	0.000	39.7	18.210	OK
S30	FEH22: 2 years: +0 %: 15 mins: Summer	72.478	71.128	71.178	0.050	10.9	0.088	0.000	10.7	4.707	OK
S31	FEH22: 2 years: +0 %: 15 mins: Summer	71.683	70.236	70.296	0.060	13.6	0.106	0.000	13.2	5.961	OK
S32	FEH22: 2 years: +0 %: 15 mins: Summer	70.803	69.453	69.501	0.048	17.5	0.084	0.000	17.2	7.808	OK
S33	FEH22: 2 years: +0 %: 15 mins: Summer	71.047	69.697	69.814	0.117	32.9	0.207	0.000	31.4	14.941	OK
S35	FEH22: 2 years: +0 %: 15 mins: Summer	64.000	63.000	63.024	0.024	2.9	0.000	0.000	2.9	2.574	OK
S36	FEH22: 2 years: +0 %: 15 mins: Summer	67.711	65.618	65.752	0.134	41.8	0.151	0.000	40.1	26.245	OK
S37	FEH22: 2 years: +0 %: 15 mins: Summer	69.453	68.103	68.115	0.012	0.3	0.021	0.000	0.3	0.276	OK
S38	FEH22: 2 years: +0 %: 15 mins: Summer	69.616	67.788	67.844	0.056	8.5	0.063	0.000	8.3	3.954	OK
S39	FEH22: 2 years: +0 %: 15 mins: Summer	67.001	65.947	66.013	0.066	5.7	0.117	0.000	5.3	2.488	OK
S44	FEH22: 2 years: +0 %: 15 mins: Summer	67.243	65.818	65.894	0.076	26.6	0.086	0.000	25.8	14.405	OK
S43	FEH22: 2 years: +0 %: 15 mins: Summer	68.205	66.540	66.615	0.075	22.9	0.085	0.000	22.0	12.384	OK
S41	FEH22: 2 years: +0 %: 15 mins: Summer	70.109	66.703	66.828	0.125	24.3	0.142	0.000	22.9	12.408	OK
S40	FEH22: 2 years: +0 %: 15 mins: Summer	70.800	66.794	66.898	0.104	16.7	0.118	0.000	15.7	8.720	OK
S45	FEH22: 2 years: +0 %: 15 mins: Summer	71.065	66.887	66.994	0.107	18.0	0.121	0.000	16.7	8.742	OK
S46	FEH22: 2 years: +0 %: 15 mins: Summer	70.524	67.063	67.142	0.079	12.7	0.090	0.000	11.3	5.870	OK
S47	FEH22: 2 years: +0 %: 15 mins: Summer	68.535	67.410	67.498	0.088	13.6	0.099	0.000	12.7	5.909	OK

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Junctions Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH22: 30 years: +40 %: 15 mins: Summer	77.425	76.075	76.246	0.170	34.8	0.301	0.000	29.6	15.074	Surcharged
S2	FEH22: 30 years: +40 %: 15 mins: Summer	76.428	75.078	75.325	0.248	58.6	0.437	0.000	51.6	27.713	Surcharged
S3	FEH22: 30 years: +40 %: 15 mins: Summer	73.577	72.227	72.342	0.116	80.8	0.205	0.000	79.9	40.401	OK
S4	FEH22: 30 years: +40 %: 15 mins: Summer	70.521	69.171	69.327	0.156	168.8	0.276	0.000	168.1	88.517	OK
S7	FEH22: 30 years: +40 %: 15 mins: Summer	70.443	67.291	67.821	0.530	4.0	0.599	0.000	3.6	4.258	Surcharged
S8	FEH22: 30 years: +40 %: 15 mins: Summer	70.782	66.852	68.042	1.189	154.1	1.345	0.000	146.2	81.947	Surcharged
S9	FEH22: 30 years: +40 %: 15 mins: Summer	69.939	66.586	67.297	0.711	254.4	0.804	0.000	249.8	130.360	Surcharged
S10	FEH22: 30 years: +40 %: 15 mins: Summer	69.670	66.504	66.987	0.484	258.0	0.547	0.000	253.4	133.171	Surcharged
S13	FEH22: 30 years: +40 %: 15 mins: Summer	69.534	66.113	66.704	0.591	30.2	0.668	0.000	20.9	21.058	Surcharged
S14	FEH22: 30 years: +40 %: 15 mins: Summer	69.726	65.984	66.419	0.435	80.2	0.492	0.000	75.9	48.445	Surcharged
S15	FEH22: 30 years: +40 %: 15 mins: Summer	69.639	65.934	66.356	0.422	88.9	0.477	0.000	83.8	53.814	Surcharged
S16	FEH22: 30 years: +40 %: 15 mins: Summer	68.641	65.729	66.159	0.430	114.1	0.486	0.000	110.8	67.939	Surcharged
S17	FEH22: 30 years: +40 %: 15 mins: Summer	67.070	65.504	65.677	0.173	191.6	0.196	0.000	188.5	107.540	OK
S19	FEH22: 30 years: +40 %: 15 mins: Summer	70.980	67.069	68.055	0.986	28.4	1.116	0.000	24.2	16.535	Surcharged
S20	FEH22: 30 years: +40 %: 15 mins: Summer	74.063	72.713	73.004	0.291	47.7	0.514	0.000	40.6	20.717	Surcharged
S21	FEH22: 30 years: +40 %: 15 mins: Summer	73.176	71.826	71.982	0.156	87.2	0.275	0.000	85.6	40.916	OK
S22	FEH22: 30 years: +40 %: 15 mins: Summer	71.057	69.707	69.829	0.122	104.3	0.216	0.000	102.8	48.970	OK
S23	FEH22: 30 years: +40 %: 15 mins: Summer	75.795	74.445	74.557	0.112	68.6	0.198	0.000	67.6	29.743	OK
S24	FEH22: 30 years: +40 %: 15 mins: Summer	73.760	72.410	72.542	0.131	86.2	0.232	0.000	86.6	37.780	OK
S25	FEH22: 30 years: +40 %: 15 mins: Summer	71.951	70.601	70.770	0.169	92.0	0.299	0.000	74.2	40.132	OK

S26	FEH22: 30 years: +40 %: 15 mins: Summer	74.483	73.133	73.476	0.343	47.7	0.606	0.000	39.8	21.291	Surcharged
S27	FEH22: 30 years: +40 %: 15 mins: Summer	75.354	74.004	74.108	0.104	31.7	0.183	0.000	31.2	13.753	OK
S28	FEH22: 30 years: +40 %: 15 mins: Summer	74.123	72.573	72.761	0.187	114.7	0.331	0.000	112.2	53.727	OK
S29	FEH22: 30 years: +40 %: 15 mins: Summer	71.524	70.174	70.276	0.103	120.5	0.181	0.000	119.6	57.298	OK
S30	FEH22: 30 years: +40 %: 15 mins: Summer	72.478	71.128	71.229	0.101	34.0	0.179	0.000	33.5	14.762	OK
S31	FEH22: 30 years: +40 %: 15 mins: Summer	71.683	70.236	70.371	0.136	42.6	0.240	0.000	41.0	18.712	OK
S32	FEH22: 30 years: +40 %: 15 mins: Summer	70.803	69.453	69.546	0.093	54.3	0.164	0.000	53.8	24.479	OK
S33	FEH22: 30 years: +40 %: 15 mins: Summer	71.047	69.697	70.486	0.789	89.9	1.395	0.000	88.5	46.999	Surcharged
S35	FEH22: 30 years: +40 %: 15 mins: Summer	64.000	63.000	63.040	0.040	8.4	0.000	0.000	8.4	9.481	OK
S36	FEH22: 30 years: +40 %: 15 mins: Summer	67.711	65.618	65.875	0.257	128.6	0.291	0.000	124.0	78.272	OK
S37	FEH22: 30 years: +40 %: 15 mins: Summer	69.453	68.103	68.127	0.023	1.2	0.041	0.000	1.2	1.364	OK
S38	FEH22: 30 years: +40 %: 15 mins: Summer	69.616	67.788	67.908	0.120	27.0	0.135	0.000	25.5	12.794	OK
S39	FEH22: 30 years: +40 %: 15 mins: Summer	67.001	65.947	66.111	0.164	18.0	0.290	0.000	16.1	7.814	Surcharged
S44	FEH22: 30 years: +40 %: 15 mins: Summer	67.243	65.818	65.955	0.137	72.9	0.155	0.000	71.5	45.373	OK
S43	FEH22: 30 years: +40 %: 15 mins: Summer	68.205	66.540	66.674	0.134	59.6	0.152	0.000	58.3	39.061	OK
S41	FEH22: 30 years: +40 %: 15 mins: Summer	70.109	66.703	67.123	0.420	62.9	0.475	0.000	59.6	39.086	Surcharged
S40	FEH22: 30 years: +40 %: 15 mins: Summer	70.800	66.794	67.216	0.422	40.6	0.477	0.000	40.4	27.486	Surcharged
S45	FEH22: 30 years: +40 %: 15 mins: Summer	71.065	66.887	67.338	0.451	47.2	0.510	0.000	40.6	27.495	Surcharged
S46	FEH22: 30 years: +40 %: 15 mins: Summer	70.524	67.063	67.437	0.374	34.0	0.423	0.000	28.2	18.492	Surcharged
S47	FEH22: 30 years: +40 %: 15 mins: Summer	68.535	67.410	67.604	0.194	42.6	0.220	0.000	34.0	18.350	OK

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Junctions Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH22: 100 years: +45 %: 15 mins: Summer	77.425	76.075	76.762	0.687	45.7	1.213	0.000	30.6	19.763	Surcharged
S2	FEH22: 100 years: +45 %: 15 mins: Summer	76.428	75.078	75.799	0.721	68.7	1.274	0.000	55.4	36.352	Surcharged
S3	FEH22: 100 years: +45 %: 15 mins: Summer	73.577	72.227	72.354	0.127	93.8	0.224	0.000	92.8	52.990	OK
S4	FEH22: 100 years: +45 %: 15 mins: Summer	70.521	69.171	69.343	0.172	198.7	0.304	0.000	196.3	115.916	OK
S7	FEH22: 100 years: +45 %: 15 mins: Summer	70.443	67.291	67.934	0.643	5.0	0.727	0.000	4.0	5.095	Surcharged
S8	FEH22: 100 years: +45 %: 15 mins: Summer	70.782	66.852	68.767	1.915	174.4	2.166	0.000	167.8	104.631	Surcharged
S9	FEH22: 100 years: +45 %: 15 mins: Summer	69.939	66.586	67.850	1.265	304.9	1.430	0.000	298.7	168.369	Surcharged
S10	FEH22: 100 years: +45 %: 15 mins: Summer	69.670	66.504	67.416	0.913	309.6	1.032	0.000	305.5	172.252	Surcharged
S13	FEH22: 100 years: +45 %: 15 mins: Summer	69.534	66.113	67.049	0.936	39.4	1.059	0.000	23.9	25.880	Surcharged
S14	FEH22: 100 years: +45 %: 15 mins: Summer	69.726	65.984	66.689	0.705	92.3	0.798	0.000	88.2	60.705	Surcharged
S15	FEH22: 100 years: +45 %: 15 mins: Summer	69.639	65.934	66.603	0.669	105.2	0.756	0.000	101.5	67.796	Surcharged
S16	FEH22: 100 years: +45 %: 15 mins: Summer	68.641	65.729	66.316	0.587	141.1	0.664	0.000	138.7	86.258	Surcharged
S17	FEH22: 100 years: +45 %: 15 mins: Summer	67.070	65.504	65.708	0.204	247.9	0.231	0.000	245.9	138.166	OK
S19	FEH22: 100 years: +45 %: 15 mins: Summer	70.980	67.069	68.825	1.756	37.2	1.986	0.000	30.3	20.917	Surcharged
S20	FEH22: 100 years: +45 %: 15 mins: Summer	74.063	72.713	73.529	0.816	62.6	1.443	0.000	49.7	27.165	Surcharged
S21	FEH22: 100 years: +45 %: 15 mins: Summer	73.176	71.826	72.018	0.192	110.8	0.339	0.000	107.5	53.652	OK
S22	FEH22: 100 years: +45 %: 15 mins: Summer	71.057	69.707	69.850	0.143	132.0	0.253	0.000	130.1	64.175	OK
S23	FEH22: 100 years: +45 %: 15 mins: Summer	75.795	74.445	74.579	0.135	89.9	0.238	0.000	88.8	39.001	OK
S24	FEH22: 100 years: +45 %: 15 mins: Summer	73.760	72.410	72.564	0.154	113.2	0.272	0.000	109.4	49.510	OK
S25	FEH22: 100 years: +45 %: 15 mins: Summer	71.951	70.601	71.501	0.900	116.5	1.590	0.000	99.1	52.621	Surcharged

S26	FEH22: 100 years: +45 %: 15 mins: Summer	74.483	73.133	73.796	0.662	52.8	1.170	0.000	44.0	28.081	Surcharged
S27	FEH22: 100 years: +45 %: 15 mins: Summer	75.354	74.004	74.400	0.396	41.6	0.700	0.000	31.2	18.024	Surcharged
S28	FEH22: 100 years: +45 %: 15 mins: Summer	74.123	72.573	72.972	0.398	142.2	0.704	0.000	123.5	70.380	Surcharged
S29	FEH22: 100 years: +45 %: 15 mins: Summer	71.524	70.174	70.284	0.110	134.4	0.195	0.000	134.3	75.062	OK
S30	FEH22: 100 years: +45 %: 15 mins: Summer	72.478	71.128	71.320	0.192	44.6	0.339	0.000	36.9	19.350	Surcharged
S31	FEH22: 100 years: +45 %: 15 mins: Summer	71.683	70.236	70.621	0.385	48.9	0.681	0.000	44.2	24.557	Surcharged
S32	FEH22: 100 years: +45 %: 15 mins: Summer	70.803	69.453	69.555	0.102	61.6	0.180	0.000	61.3	32.116	OK
S33	FEH22: 100 years: +45 %: 15 mins: Summer	71.047	69.697	70.915	1.218	119.7	2.152	0.000	105.3	61.636	Surcharged
S35	FEH22: 100 years: +45 %: 15 mins: Summer	64.000	63.000	63.041	0.041	8.6	0.000	0.000	8.6	10.185	OK
S36	FEH22: 100 years: +45 %: 15 mins: Summer	67.711	65.618	65.922	0.304	162.0	0.344	0.000	159.2	99.771	OK
S37	FEH22: 100 years: +45 %: 15 mins: Summer	69.453	68.103	68.127	0.024	1.5	0.043	0.000	1.5	1.768	OK
S38	FEH22: 100 years: +45 %: 15 mins: Summer	69.616	67.788	68.116	0.328	35.6	0.371	0.000	29.7	16.447	Surcharged
S39	FEH22: 100 years: +45 %: 15 mins: Summer	67.001	65.947	66.229	0.282	23.6	0.499	0.000	20.9	10.249	Surcharged
S44	FEH22: 100 years: +45 %: 15 mins: Summer	67.243	65.818	65.982	0.164	93.8	0.186	0.000	91.3	59.494	OK
S43	FEH22: 100 years: +45 %: 15 mins: Summer	68.205	66.540	66.702	0.162	77.0	0.184	0.000	74.7	51.289	OK
S41	FEH22: 100 years: +45 %: 15 mins: Summer	70.109	66.703	67.430	0.727	82.6	0.822	0.000	77.0	51.312	Surcharged
S40	FEH22: 100 years: +45 %: 15 mins: Summer	70.800	66.794	67.578	0.784	54.2	0.887	0.000	49.3	36.087	Surcharged
S45	FEH22: 100 years: +45 %: 15 mins: Summer	71.065	66.887	67.771	0.884	62.3	1.000	0.000	54.2	36.094	Surcharged
S46	FEH22: 100 years: +45 %: 15 mins: Summer	70.524	67.063	67.911	0.848	44.5	0.959	0.000	35.0	24.278	Surcharged
S47	FEH22: 100 years: +45 %: 15 mins: Summer	68.535	67.410	68.316	0.906	55.9	1.025	0.000	44.5	24.101	Surcharged

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Stormwater Controls Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)
Basin 2	FEH22: 2 years: +0 %: 15 mins: Summer	66.575	66.575	66.575	0.175	0.175	0.175	83.4	41.331	0.000	0.000	3.4	3.818	207
Basin 3	FEH22: 2 years: +0 %: 15 mins: Summer	64.597	64.597	64.597	0.097	0.097	0.097	86.6	47.294	0.000	0.000	2.9	2.603	380
Basin 1	FEH22: 2 years: +0 %: 15 mins: Summer	67.543	67.543	67.543	0.143	0.143	0.143	66.2	29.418	0.000	0.000	4.0	3.237	72
Porous Paving 4	FEH22: 2 years: +0 %: 15 mins: Summer	68.109	68.109	68.109	0.048	0.048	0.048	2.0	0.550	0.000	0.000	0.7	0.592	23
Porous Paving 5	FEH22: 2 years: +0 %: 15 mins: Summer	67.131	67.131	67.131	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	
Porous Paving 6	FEH22: 2 years: +0 %: 15 mins: Summer	67.179	67.179	67.179	0.048	0.048	0.048	1.9	0.538	0.000	0.000	0.7	0.587	22
Porous Paving 7	FEH22: 2 years: +0 %: 15 mins: Summer	67.155	67.155	67.155	0.024	0.024	0.024	1.1	0.357	0.000	0.000	0.2	0.226	45
Porous Paving 1	FEH22: 2 years: +0 %: 15 mins: Summer	69.964	69.964	69.964	0.023	0.023	0.023	5.1	2.103	0.000	0.000	0.2	0.240	296
Porous Paving 8	FEH22: 2 years: +0 %: 15 mins: Summer	68.901	68.901	68.901	0.028	0.028	0.028	5.4	2.185	0.000	0.000	0.3	0.325	226
Porous Paving 9	FEH22: 2 years: +0 %: 15 mins: Summer	73.915	73.915	73.915	0.012	0.012	0.012	3.6	1.514	0.000	0.000	0.1	0.082	633
Porous Paving 10	FEH22: 2 years: +0 %: 15 mins: Summer	69.191	69.191	69.191	0.045	0.045	0.045	3.2	1.097	0.000	0.000	0.6	0.636	51
Porous Paving 11	FEH22: 2 years: +0 %: 15 mins: Summer	69.120	69.120	69.120	0.030	0.030	0.030	7.7	3.148	0.000	0.000	0.3	0.372	285
Porous Paving 2	FEH22: 2 years: +0 %: 15 mins: Summer	69.012	69.011	69.011	0.058	0.057	0.057	5.7	2.023	0.000	0.000	0.9	0.978	64
Porous Paving 3	FEH22: 2 years: +0 %: 15 mins: Summer	68.061	68.061	68.061	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	

Percentage Available (%)	Status
90.249	OK
94.101	OK
91.835	OK
89.308	OK
100.000	OK
89.379	OK
94.717	OK
94.875	OK
93.811	OK
97.412	OK
89.896	OK
93.279	OK
87.225	OK
100.000	OK

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Stormwater Controls Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)
Basin 2	FEH22: 30 years: +40 %: 15 mins: Summer	66.875	66.875	66.875	0.475	0.475	0.475	255.3	127.332	0.000	0.000	6.2	6.394	626
Basin 3	FEH22: 30 years: +40 %: 15 mins: Summer	64.778	64.778	64.778	0.278	0.278	0.278	260.0	143.282	0.000	0.000	8.4	9.529	279
Basin 1	FEH22: 30 years: +40 %: 15 mins: Summer	67.828	67.828	67.828	0.428	0.428	0.428	194.8	98.041	0.000	0.000	4.0	4.185	708
Porous Paving 4	FEH22: 30 years: +40 %: 15 mins: Summer	68.212	68.212	68.212	0.151	0.151	0.151	6.1	1.727	0.000	0.000	1.8	1.987	26
Porous Paving 5	FEH22: 30 years: +40 %: 15 mins: Summer	67.131	67.131	67.131	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	
Porous Paving 6	FEH22: 30 years: +40 %: 15 mins: Summer	67.281	67.281	67.281	0.150	0.150	0.150	6.0	1.686	0.000	0.000	1.8	1.976	26
Porous Paving 7	FEH22: 30 years: +40 %: 15 mins: Summer	67.196	67.196	67.196	0.065	0.065	0.065	3.3	0.979	0.000	0.000	1.0	0.969	27
Porous Paving 1	FEH22: 30 years: +40 %: 15 mins: Summer	70.011	70.011	70.011	0.070	0.070	0.070	16.1	6.343	0.000	0.000	1.1	1.251	177
Porous Paving 8	FEH22: 30 years: +40 %: 15 mins: Summer	68.957	68.957	68.957	0.084	0.084	0.084	17.0	6.606	0.000	0.000	1.2	1.464	159
Porous Paving 9	FEH22: 30 years: +40 %: 15 mins: Summer	73.939	73.939	73.939	0.036	0.036	0.036	11.3	4.639	0.000	0.000	0.4	0.480	325
Porous Paving 10	FEH22: 30 years: +40 %: 15 mins: Summer	69.286	69.286	69.286	0.140	0.140	0.140	10.1	3.383	0.000	0.000	1.7	2.054	56
Porous Paving 11	FEH22: 30 years: +40 %: 15 mins: Summer	69.183	69.183	69.183	0.093	0.093	0.093	24.1	9.634	0.000	0.000	1.3	1.581	217
Porous Paving 2	FEH22: 30 years: +40 %: 15 mins: Summer	69.137	69.137	69.137	0.183	0.183	0.183	18.0	6.436	0.000	0.000	2.0	2.487	92
Porous Paving 3	FEH22: 30 years: +40 %: 15 mins: Summer	68.061	68.061	68.061	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	

Percentage Available (%)	Status
69.960	OK
82.129	OK
72.790	OK
66.402	OK
100.000	OK
66.718	OK
85.530	OK
84.544	OK
81.290	OK
92.072	OK
68.848	OK
79.430	OK
59.349	OK
100.000	OK

Land to the east of Tilletts Lane, Warnham:	Date: 09/05/2025		
	Designed by: CC	Checked by: CG	Approved By: JM
Report Details: Type: Stormwater Controls Summary Storm Phase: Surface Network 1	Motion: 84 North Street Guildford GU1 4AU		

FEH22: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)
Basin 2	FEH22: 100 years: +45 %: 15 mins: Summer	66.994	66.994	66.994	0.594	0.594	0.594	310.4	167.001	0.000	0.000	7.0	6.657	1709
Basin 3	FEH22: 100 years: +45 %: 15 mins: Summer	64.855	64.855	64.855	0.355	0.355	0.355	337.2	187.314	0.000	0.000	8.6	10.234	307
Basin 1	FEH22: 100 years: +45 %: 15 mins: Summer	67.944	67.944	67.944	0.544	0.544	0.544	229.6	129.780	0.000	0.000	4.0	4.192	7119
Porous Paving 4	FEH22: 100 years: +45 %: 15 mins: Summer	68.265	68.265	68.265	0.204	0.204	0.204	8.0	2.330	0.000	0.000	2.1	2.457	29
Porous Paving 5	FEH22: 100 years: +45 %: 15 mins: Summer	67.131	67.131	67.131	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	
Porous Paving 6	FEH22: 100 years: +45 %: 15 mins: Summer	67.333	67.333	67.333	0.202	0.202	0.202	7.9	2.273	0.000	0.000	2.1	2.443	29
Porous Paving 7	FEH22: 100 years: +45 %: 15 mins: Summer	67.217	67.217	67.217	0.086	0.086	0.086	4.4	1.293	0.000	0.000	1.3	1.303	29
Porous Paving 1	FEH22: 100 years: +45 %: 15 mins: Summer	70.033	70.033	70.033	0.092	0.092	0.092	21.1	8.354	0.000	0.000	1.3	1.548	192
Porous Paving 8	FEH22: 100 years: +45 %: 15 mins: Summer	68.984	68.984	68.984	0.111	0.111	0.111	22.3	8.715	0.000	0.000	1.5	1.788	174
Porous Paving 9	FEH22: 100 years: +45 %: 15 mins: Summer	73.950	73.951	73.951	0.047	0.048	0.048	14.8	6.240	0.000	0.000	0.7	0.701	273
Porous Paving 10	FEH22: 100 years: +45 %: 15 mins: Summer	69.332	69.332	69.332	0.186	0.186	0.186	13.2	4.495	0.000	0.000	2.0	2.489	62
Porous Paving 11	FEH22: 100 years: +45 %: 15 mins: Summer	69.212	69.212	69.212	0.122	0.122	0.122	31.6	12.705	0.000	0.000	1.6	1.919	238
Porous Paving 2	FEH22: 100 years: +45 %: 15 mins: Summer	69.198	69.198	69.198	0.244	0.244	0.244	23.6	8.598	0.000	0.000	2.3	2.975	102
Porous Paving 3	FEH22: 100 years: +45 %: 15 mins: Summer	68.061	68.061	68.061	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.0	0.000	

Percentage Available (%)	Status
60.601	OK
76.637	OK
63.981	OK
54.680	OK
100.000	OK
55.126	OK
80.878	OK
79.643	OK
75.321	OK
89.337	OK
58.599	OK
72.872	OK
45.700	OK
100.000	OK

Appendix L

Southern Water Developer Services Foul Flow Excel Calculation

Development Size (Number of Units)	N	59	
Site Area (Ha)	A	4.332	
Development Density per 4ha	D	54.48	
Per Capita Flow -Litres/ head / day	G	125	
Infiltration – Percentage	I	10	
Occupancy – Persons/Dwelling	O	2.4	
Dry Weather Flow multiplier		**SD**	**PF**
(PF - Peaking Factor)		30 - 240	2.5
(SD –Storm Duration– minutes)		240 - 480	2
		>480	1.4
Allowance for misconnected surface water			
Population – Number of people	P	141.6	
Misconnected surface water allowance m^2/property	M	2.1	

Assume storm duration of 360 minutes, thus a default value of '2'

Refer to Row 4 and compare to the integers in Columns B20 to B24 and enter the correcponding value from Columns C20 to C24

Design Flow (litres/day) **46,143.90**

Design Flow (litres/sec) **0.53**

Development Density (Properties / 4Ha)	Misconnected surface water allowance m2/property
<=100	2.10
120	1.60
140	1.10
180	0.60
>=200	0.30

Appendix M

Drainage Management and Maintenance Plan

Land to the east of Tilletts Lane,
Warnham

Drainage Management & Maintenance Plan

For

Broadbridge Heath Trust

Document Control Sheet

Land to the east of Tilletts Lane,
Warnham

Broadbridge Heath Trust

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
08/05/2025	Final	Chris Gray	Jason Morgans

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Contents

1.0 Introduction

1.1 This document sets out the principles for the long-term management and maintenance of the proposed surface water drainage system at the Land east of Tilletts Lane, Warnham development.

1.2 The purpose of this document is to ensure that the site management company or their agents have a robust inspection and maintenance plan going forwards. This ensures the optimum operation of the surface water drainage system and that it will be continually maintained for the lifetime of the development. This will contribute to reducing the risk of surface water flooding both on- and off-site.

1.3 All those responsible for maintenance should follow relevant health and safety legislation for all activities listed within this report (including lone working, if relevant). Method statements and risk assessments should always be undertaken and made available, if requested.

1.4 This document has been produced by Motion on behalf of their client, Broadbridge Heath Trust. This document describes the typical management and maintenance tasks that are known at the outline design stage (maintenance frequencies and typical tasks, for example). These have been drawn from industry guidance such as CIRIA C753 - The SuDS Manual – and manufacturer's own guidance.

1.5 Maintenance is considered as a construction activity under the CDM Regulations 2015. Under the CDM Regulations, it is a requirement that a competent person be appointed to carry out a required role. CDM defines a competent person as an individual with sufficient knowledge of the specific tasks to be undertaken, as well as sufficient experience and ability to carry out their duties in relation to the task in a way that secures health and safety on site.

1.6 In recognition of the requirements of the CDM Regulations 2015, this surface water management and maintenance plan expects that the maintenance work will be carried out by a competent person who must have prior knowledge of the drainage components and SuDS systems on site.

1.7 There are limitations on what this document can prescribe at this time. At this stage this document cannot name the specific individuals who will carry out the maintenance and what equipment is to be used. Related to this, this document is unable to provide method statements for exactly how maintenance practices will be carried out. These can only be determined at the time of the maintenance being carried out and the exact maintenance need. Therefore, this is to be the responsibility of the site management company and/or the individuals carrying out the work. We urge those who are carrying out the maintenance to record this information and make it available to the Local Planning Authority (LPA), if required to do so. This drainage management and maintenance plan needs to be a living document that is owned and maintained by the adopting site management company. The intention of the report is to set out the principles for the long-term management and maintenance of the proposed surface water drainage system at the Land east of Tilletts Lane, Warnham development.

2.0 Maintenance Categories

2.1 There are three categories of maintenance activities referred to in this report. These are:

Regular maintenance (including inspections and monitoring)

- Regular maintenance consists of basic tasks done on a frequent and predictable schedule, including inspections, vegetation management, and litter, silt and debris removal.

Occasional maintenance

- Occasional maintenance comprises tasks that are likely to be required periodically, but on a much less frequent and predictable basis than the routine tasks (sediment removal is an example).

Remedial maintenance

- Remedial maintenance comprises of intermittent tasks that may be required to rectify faults associated with the system. The likelihood of faults can be minimised by correct installation, regular inspection and timely maintenance. Where remedial work is found to be necessary, it is likely to be due to site-specific characteristics or unforeseen events and, as such, timings are difficult to predict.
- This document should be read in conjunction with the design drawings of the drainage system, so that the location and type of each feature can be recognised and understood.

3.0 The Surface Water Drainage System

3.1 The proposed surface water drainage system is made up of a number of components. These include:

- Pervious Pavements/Filter Drains
- Attenuation Basins
- Catchpit Manholes/Silt Traps (Including filter drains)
- Hydrobrake/Flow Controls
- Manholes
- Pipes (Including filter drains and proposed culverts).

3.2 All components should be installed in accordance with the manufacturer's instructions and to the levels/arrangement as defined on the designer's drawings. Not doing so will invalidate any warranty provided by the manufacturer.

3.3 All maintenance and cleaning must be carried out in accordance with manufacturer's recommendations and by competent and suitably qualified staff, as defined in the CDM regulations 2015.

4.0 General Maintenance Principles

4.1 All surface water drainage systems, whether piped gravity systems, Sustainable Drainage Systems (SuDS), or flow control devices and pumps, require regular maintenance to keep them working at optimum efficiency and capacity. The maintenance of the surface water drainage system on the development should be carried out alongside other regular maintenance tasks on site.

4.2 Timely and adequate maintenance will increase the lifespan of all the drainage components. Inadequate maintenance will do the reverse. Therefore, the projected lifespan and anticipated replacement date of each drainage component cannot be forecast at the time of this document being produced.

4.3 The site management company and/or their agents are responsible for the maintenance of the surface water drainage system.

4.4 Construction activities can create and discharge significant quantities of sediment that will quickly clog the surface water drainage system. Therefore, construction-stage sediment removal is required immediately post-construction. This may require several cleans of the system during the first year after installation. The construction site manager should assess this and carry out cleaning as necessary.

4.5 Catchpit manholes/silt traps will be specified upstream of the SuDS. They will remove gross solids and the majority of silts. It is important that any debris build-up in the catchpit manholes/silt traps is removed at regular intervals. This will reduce the risk of the pervious pavements becoming silted up. It will maintain its design capacity and function.

4.6 Cleaning should also take place after large storms when there have been increased surface water flows and visible entrainment and deposition of debris.

4.7 An increased frequency of inspection and maintenance should be programmed into the autumn and winter months in acknowledgement that:

- Leaf fall from deciduous trees in autumn will result in an increased amount of leaf litter and an elevated blockage risk of drainage infrastructure.
- Increased rainfall during winter months will result in greater quantities of water moving through the drainage system and a greater input of silt and other debris.

4.8 Table 4.1, below, gives an overview of typical maintenance tasks and the frequency with which they need to be undertaken. Section 5 – Inspection and Maintenance Frequency of Components – will assign typical maintenance frequencies and tasks to the specific components used within the surface water drainage system used on the development.

Table 4.1: Typical maintenance tasks and frequencies

Activity	Indicative Frequency	Typical Tasks
Routine/regular maintenance	Monthly to annually	▸ Litter picking ▸ Silt removal ▸ Inspection of all inlets, outlets and control structures ▸ Weed removal and invasive plant control
Occasional maintenance	Annually up to 25 years	▸ Silt control around components ▸ Vegetation management around components ▸ Sweeping of pavement areas to remove surface silt ▸ Silt removal from catchpits, cellular storage structures
Remedial maintenance	As required	▸ Inlet/outlet repairs ▸ Erosion repairs ▸ Reinstatement of edgings ▸ Reinstatement following pollution ▸ Removal of silt build-up and leaf litter after storms ▸ Repair of vandalism ▸ Replacement of any blocked filter ▸ membranes/materials

5.0 Inspection and Maintenance Frequency of Components

5.1 Table 5.1 below lists each of the components used within the site's surface water drainage system. It suggests an indicative maintenance frequency for each component and ascribes typical maintenance tasks to them.

5.2 This list is not exhaustive, nor is it prescriptive. As mentioned in Section 3, additional, unscheduled maintenance may be required following adverse weather conditions or after autumn leaf falls. Additional maintenance tasks may be required to adequately clean and maintain individual components.

5.3 The list of components should be cross-referenced with the designer's drawings so that the location of each component can be identified.

5.4 It is the responsibility of the site management company and/or their agents to ensure that all necessary maintenance activities are carried out in a timely manner and that the design performance of each drainage component is preserved.

5.5 If there is any uncertainty regarding the correct and safe methods of cleaning, or what equipment should be used, the manufacturer should be consulted.

5.6 Upon completion of maintenance activities, a record should be kept of the work carried out. This should be retained and an annual maintenance report should be compiled, which should include the following:

- Observations resulting from inspections
- Maintenance and operation activities undertaken during the year
- Recommendations for inspections and maintenance programmes for the following year

5.7 On the last page is a table with suggested information should be recorded and included with the maintenance plan. As mentioned in the introduction to this document, this should be a living document and regularly updated, as required.

5.8 The Local Planning Authority Horsham District Council (HDC) may request to check and sign off any maintenance activities. Therefore, it is recommended that the LPA is contacted prior to any scheduled routine maintenance. Also, with reference to Table 5.1, the annual maintenance report, including a completed version of the table on the last page, should be offered to the LPA for their records and approval.

Table 5.1: Maintenance Frequency and Task for Drainage Components

Activity	Indicative Frequency	Anticipated Tasks
Pipes (filter drains and proposed culverts)	As required	▸ Identify any pipes that may not be operating properly and employ a competent, qualified contractor to inspect using CCTV. ▸ If the pipe is blocked with silt or debris, the pipe should be jetted clean from an upstream access point. All silt and debris should be captured and removed at a downstream access point. ▸ Clear perforated pipework of blockages ▸ Inspect once clean. ▸ If any other defects are encountered (cracks, displaced joints, root ingress), appropriate solutions should be discussed with a competent and qualified contractor. These

		services are usually provided by the same companies that offer CCTV surveys and pipe jetting services. ▸ The proposed culvert under the access should be desilted and cleared of leaf litter and other debris after storms; monthly in the autumn and winter; and quarterly during the rest of the year.
Manholes	Annually	▸ Inspect/identify any damage or areas that are not operating correctly ▸ Remove silt, litter, leaves and other detritus. ▸ Inspect once clean.
Catchpit Manholes/Silt Traps (Including filter drains)	Twice a year, before and after autumn/winter	▸ Inspect/identify any damage or areas that are not operating correctly ▸ Remove silt, litter, leaves and other detritus. ▸ Inspect once clean.
Attenuation Basin	Monthly in Summer, as required in Winter	▸ Responsibility should be with landscape contractors. ▸ Maintenance tasks are not that different from standard public open space. ▸ Adequate access needs to be provided to the area. ▸ Regular mowing should take place across maintenance access routes, amenity areas, across embankments and the main storage area. Remaining areas can remain as 'meadow'. Mowed grass lengths of 75 – 100mm are appropriate. ▸ Grass clippings should be disposed of off-site. ▸ Any dead growth should be cleared before the start of the growing season. ▸ Any permanently wet areas with emergent aquatic vegetation should be managed as ponds or wetlands. ▸ Remove any sediment build-up as required. ▸ Check any inlets and outlets for blockages and clear as required. ▸ Check any flow control devices, if present.
HydroBrake/Flow Control chamber	Every three months for the first year, then annually thereafter	▸ Contact manufacturer for instruction on approved and safe inspection and maintenance practices. ▸ Inspect and check functionality. Remove any detritus as required. ▸ Inspect once clean.
Pervious Pavements/Filter Drains	Once a year after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations.	▸ Remove litter including leaf litter and debris from surface and agitate surface to ensure no vegetation or moss is allowed to establish and grow. ▸ Locally refill with the correct aggregate once a year or as appropriate ▸ Remove weeds from the surface through the application of glyphosate-based weed killers

		▸ Stabilise and mow contributing and adjacent areas. ▸ Inspect once clean. ▸ See Table 20.15 of CIRIA C753 for more information. ▸ Major oil spills have the potential to contaminate the surface and the underlying crushed stone. In the event of a major oil spill, the area of crushed stone that is affected should be removed, cleaned and reinstalled.

Date	Component requiring maintenance	Issues prompting maintenance	Scheduled maintenance (Y/N)	Maintenance carried out	Additional works required (Y/N). If yes, please detail	Next scheduled date of inspection and maintenance