

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	3.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SW01	0.005	3.00	14.550	450	445137.443	118441.311	0.450
SW02	0.005	3.00	14.550	450	445115.830	118444.642	0.669
SW03	0.005	3.00	14.600	450	445114.237	118433.488	0.832
SW04	0.030	3.00	14.700	450	445126.828	118431.242	1.060
SW05	0.002	3.00	14.700	450	445127.878	118429.131	1.134
SW06	0.005	3.00	14.600	450	445147.519	118429.339	0.675
SW07	0.005	3.00	14.500	450	445145.433	118414.046	0.739
SW08	0.018	3.00	14.600	450	445126.133	118416.803	1.029
SW09			14.600	450	445125.187	118421.365	0.636
SW10(CP)			14.600	450	445127.039	118423.206	1.094
SW11			14.500	1200	445113.783	118425.097	1.005
RE1	0.002	3.00	14.450		445111.758	118423.284	0.350
Outfall			14.500		445110.989	118425.618	1.160
Model Junction			14.600		445126.887	118422.135	1.083
Storage Node_IN			14.600		445123.220	118423.749	1.158
Storage Node_OUT		3.00	14.600		445115.300	118424.881	1.090
Storage Node_Perm Paving01		3.00	14.600		445125.265	118415.858	0.400
Storage Node_Perm Paving02		3.00	14.700		445125.815	118430.911	0.400

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	20.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	45	0	0
30	40	0	0				

Node Storage Node OUT Tank Storage Structure

Invert Level (m) 13.510 | Time to half empty (mins) 39 | Analyse flow through structure x

Inlets

Storage Node_IN

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	20.0	0.400	20.0

Node Storage Node Perm Paving01 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00577	Safety Factor	2.0	Invert Level (m)	14.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	62.5	0.0	0.300	62.5	0.0

Node Storage Node Perm Paving02 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00577	Safety Factor	2.0	Invert Level (m)	14.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	62.5	0.0	0.300	62.5	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW01	9	14.122	0.022	0.9	0.0082	0.0000	OK
15 minute summer	SW02	10	13.911	0.030	1.7	0.0093	0.0000	OK
15 minute summer	SW03	10	13.805	0.037	2.3	0.0102	0.0000	OK
15 minute summer	SW04	9	13.698	0.058	7.2	0.0418	0.0000	OK
180 minute summer	SW05	108	13.679	0.113	2.6	0.0219	0.0000	OK
15 minute summer	SW06	9	13.947	0.022	0.9	0.0066	0.0000	OK
15 minute summer	SW07	10	13.791	0.030	1.7	0.0089	0.0000	OK
120 minute summer	SW08	74	13.676	0.105	1.9	0.0533	0.0000	OK
15 minute winter	SW09	10	13.970	0.006	0.3	0.0010	0.0000	OK
180 minute summer	SW10(CP)	108	13.678	0.172	3.8	0.0274	0.0000	SURCHARGED
120 minute summer	SW11	76	13.664	0.169	2.1	0.1911	0.0000	SURCHARGED
15 minute winter	RE1	10	14.115	0.015	0.3	0.0017	0.0000	OK
120 minute summer	Outfall	76	13.365	0.025	2.0	0.0000	0.0000	OK
180 minute summer	Model Junction	108	13.679	0.162	2.3	0.0000	0.0000	SURCHARGED
120 minute summer	Storage Node_IN	74	13.673	0.231	6.5	0.0000	0.0000	OK
120 minute summer	Storage Node_OUT	76	13.664	0.154	3.3	3.0758	0.0000	SURCHARGED
15 minute summer	Storage Node_Perm Paving01	1	14.100	-0.100	0.0	0.0000	0.0000	OK
15 minute summer	Storage Node_Perm Paving02	1	14.200	-0.100	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SW01	1.000	SW02	0.8	0.402	0.045	0.0440	9.2
15 minute summer	SW02	1.001	SW03	1.6	0.539	0.088	0.0328	
15 minute summer	SW03	1.002	SW04	2.3	0.503	0.131	0.0609	
15 minute summer	SW04	1.003	SW05	6.9	0.929	0.218	0.0177	
180 minute summer	SW05	1.004	SW10(CP)	2.3	0.353	0.129	0.0952	
15 minute summer	SW06	3.000	SW07	0.8	0.413	0.045	0.0310	
15 minute summer	SW07	3.001	SW08	1.6	0.398	0.089	0.0857	
120 minute summer	SW08	3.002	Model Junction	1.6	0.399	0.089	0.0827	
15 minute winter	SW09	5.001	Model Junction	0.3	0.078	0.003	0.0146	
180 minute summer	SW10(CP)	1.005	Storage Node_IN	3.8	0.475	0.166	0.0679	
120 minute summer	SW11	6.001	Outfall	2.0	1.240	0.139	0.0045	
15 minute winter	RE1	5.000	SW09	0.3	0.531	0.017	0.0080	
180 minute summer	Model Junction	3.003	SW10(CP)	1.5	0.238	0.084	0.0190	
120 minute summer	Storage Node_OUT	6.000	SW11	2.1	0.308	0.118	0.0270	
15 minute summer	Storage Node_Perm Paving01	4.000	SW08	0.0	0.000	0.000	0.0000	
15 minute summer	Storage Node_Perm Paving01	Infiltration		0.0				
15 minute summer	Storage Node_Perm Paving02	2.000	SW04	0.0	0.000	0.000	0.0025	
15 minute summer	Storage Node_Perm Paving02	Infiltration		0.0				

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	SW01	42	14.217	0.117	1.8	0.0446	0.0000	OK
60 minute summer	SW02	43	14.217	0.336	3.2	0.1040	0.0000	SURCHARGED
60 minute summer	SW03	43	14.217	0.449	4.3	0.1254	0.0000	SURCHARGED
60 minute summer	SW04	43	14.217	0.577	12.8	0.4184	0.0000	SURCHARGED
60 minute summer	SW05	43	14.216	0.650	12.2	0.1260	0.0000	SURCHARGED
60 minute summer	SW06	49	14.215	0.290	1.8	0.0891	0.0000	SURCHARGED
60 minute summer	SW07	44	14.213	0.452	3.2	0.1330	0.0000	FLOOD RISK
60 minute summer	SW08	43	14.213	0.642	8.2	0.3268	0.0000	SURCHARGED
60 minute summer	SW09	43	14.213	0.249	2.7	0.0396	0.0000	SURCHARGED
60 minute summer	SW10(CP)	43	14.213	0.707	17.3	0.1124	0.0000	SURCHARGED
60 minute summer	SW11	43	14.192	0.697	4.9	0.7880	0.0000	SURCHARGED
60 minute summer	RE1	43	14.213	0.113	1.3	0.0129	0.0000	OK
60 minute summer	Outfall	43	13.377	0.037	4.2	0.0000	0.0000	OK
60 minute summer	Model Junction	43	14.213	0.696	7.9	0.0000	0.0000	SURCHARGED
60 minute summer	Storage Node_IN	43	14.210	0.768	16.6	0.0000	0.0000	OK
60 minute summer	Storage Node_OUT	43	14.193	0.683	10.2	7.8675	0.0000	SURCHARGED
60 minute summer	Storage Node_Perm Paving01	48	14.111	-0.089	0.7	0.2026	0.0000	OK
15 minute summer	Storage Node_Perm Paving02	1	14.200	-0.100	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	SW01	1.000	SW02	1.6	0.477	0.090	0.3539	
60 minute summer	SW02	1.001	SW03	2.8	0.570	0.156	0.1984	
60 minute summer	SW03	1.002	SW04	3.0	0.487	0.167	0.2252	
60 minute summer	SW04	1.003	SW05	11.5	0.827	0.364	0.0415	
60 minute summer	SW05	1.004	SW10(CP)	11.2	0.634	0.628	0.1053	
60 minute summer	SW06	3.000	SW07	1.6	0.452	0.087	0.2717	
60 minute summer	SW07	3.001	SW08	2.3	0.300	0.130	0.3432	
60 minute summer	SW08	3.002	Model Junction	7.2	0.494	0.407	0.0948	
60 minute summer	SW09	5.001	Model Junction	-2.1	-0.166	-0.024	0.0329	
60 minute summer	SW10(CP)	1.005	Storage Node_IN	16.6	0.944	0.723	0.0679	
60 minute summer	SW11	6.001	Outfall	4.2	1.518	0.297	0.0079	25.2
60 minute summer	RE1	5.000	SW09	-1.0	0.689	-0.059	0.2159	
60 minute summer	Model Junction	3.003	SW10(CP)	7.0	0.468	0.388	0.0190	
60 minute summer	Storage Node_OUT	6.000	SW11	4.9	0.473	0.275	0.0270	
60 minute summer	Storage Node_Perm Paving01	4.000	SW08	3.5	0.651	0.098	0.0058	
60 minute summer	Storage Node_Perm Paving01	Infiltration		0.0				
15 minute summer	Storage Node_Perm Paving02	2.000	SW04	0.0	0.000	0.000	0.0042	
15 minute summer	Storage Node_Perm Paving02	Infiltration		0.0				

		AKSWard Limited 10 Bonhill Street London EC2A 4PE		File: MPE-AKSW-XX-XX-CA-C-0001 Network: Storm Network Max Waddup Issue Date: 20/03/2026		Page 5 Designed By: MW Reviewed By: KL Revision: P01			
		Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 98.35%							
Node Event		US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	SW01		34	14.375	0.275	4.5	0.1049	0.0000	FLOOD RISK
60 minute summer	SW02		35	14.370	0.489	4.5	0.1512	0.0000	FLOOD RISK
60 minute summer	SW03		35	14.366	0.598	4.7	0.1667	0.0000	FLOOD RISK
60 minute summer	SW04		35	14.355	0.715	16.5	0.5182	0.0000	SURCHARGED
60 minute summer	SW05		35	14.345	0.779	15.6	0.1512	0.0000	SURCHARGED
60 minute winter	SW06		47	14.335	0.410	3.2	0.1259	0.0000	FLOOD RISK
60 minute winter	SW07		47	14.335	0.574	3.5	0.1687	0.0000	FLOOD RISK
60 minute winter	SW08		47	14.334	0.763	10.2	0.3883	0.0000	FLOOD RISK
60 minute winter	SW09		46	14.333	0.369	2.8	0.0586	0.0000	FLOOD RISK
60 minute winter	SW10(CP)		46	14.332	0.826	15.8	0.1314	0.0000	FLOOD RISK
60 minute winter	SW11		46	14.309	0.814	5.7	0.9207	0.0000	FLOOD RISK
60 minute winter	RE1		46	14.333	0.233	1.9	0.0266	0.0000	FLOOD RISK
60 minute winter	Outfall		46	13.379	0.039	4.6	0.0000	0.0000	OK
60 minute winter Model Junction			46	14.333	0.816	7.3	0.0000	0.0000	FLOOD RISK
60 minute winter Storage Node_IN			46	14.329	0.887	15.1	0.0000	0.0000	OK
60 minute winter Storage Node_OUT			46	14.311	0.801	9.3	7.9108	0.0000	FLOOD RISK
60 minute winter Storage Node_Perm Paving01			46	14.334	0.134	10.3	4.3878	0.0000	FLOOD RISK
60 minute summer Storage Node_Perm Paving02			50	14.321	0.021	6.4	2.2706	0.0000	OK
Link Event (Upstream Depth)		US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer SW01			1.000	SW02	2.2	0.477	0.126	0.3850	31.2
60 minute summer SW02			1.001	SW03	3.1	0.570	0.176	0.1984	
60 minute summer SW03			1.002	SW04	4.8	0.497	0.273	0.2252	
60 minute summer SW04			1.003	SW05	14.7	0.841	0.466	0.0415	
60 minute summer SW05			1.004	SW10(CP)	13.9	0.787	0.779	0.1053	
60 minute winter SW06			3.000	SW07	-1.6	0.422	-0.088	0.2717	
60 minute winter SW07			3.001	SW08	2.5	0.317	0.141	0.3432	
60 minute winter SW08			3.002	Model Junction	6.7	0.525	0.379	0.0948	
60 minute winter SW09			5.001	Model Junction	-2.8	-0.159	-0.032	0.0329	
60 minute winter SW10(CP)			1.005	Storage Node_IN	15.1	0.858	0.657	0.0679	
60 minute winter SW11			6.001	Outfall	4.6	1.549	0.322	0.0084	
60 minute winter RE1			5.000	SW09	-1.3	0.657	-0.073	0.2388	
60 minute winter Model Junction			3.003	SW10(CP)	6.6	0.431	0.370	0.0190	
60 minute winter Storage Node_OUT			6.000	SW11	5.7	0.537	0.319	0.0270	
60 minute winter Storage Node_Perm Paving01			4.000	SW08	-10.3	-1.675	-0.283	0.0100	
60 minute winter Storage Node_Perm Paving01			Infiltration		0.0				
60 minute summer Storage Node_Perm Paving02			2.000	SW04	-6.4	-1.157	-0.133	0.0049	
60 minute summer Storage Node_Perm Paving02			Infiltration		0.0				
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Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	SW01	1.000	SW02	2.1	0.479	0.118	0.3850	29.4
60 minute summer	SW02	1.001	SW03	3.0	0.580	0.167	0.1984	
60 minute summer	SW03	1.002	SW04	3.3	0.495	0.187	0.2252	
60 minute summer	SW04	1.003	SW05	13.6	0.834	0.430	0.0415	
60 minute summer	SW05	1.004	SW10(CP)	12.7	0.720	0.713	0.1053	
60 minute summer	SW06	3.000	SW07	1.8	0.443	0.099	0.2717	
60 minute summer	SW07	3.001	SW08	2.2	0.314	0.123	0.3432	
60 minute summer	SW08	3.002	Model Junction	8.2	0.535	0.460	0.0948	
60 minute summer	SW09	5.001	Model Junction	-3.9	-0.258	-0.044	0.0329	
60 minute summer	SW10(CP)	1.005	Storage Node_IN	19.2	1.092	0.837	0.0679	
60 minute summer	SW11	6.001	Outfall	4.5	1.543	0.317	0.0083	
60 minute summer	RE1	5.000	SW09	-1.1	0.716	-0.059	0.2388	
60 minute summer	Model Junction	3.003	SW10(CP)	8.1	0.460	0.452	0.0190	
60 minute summer	Storage Node_OUT	6.000	SW11	6.1	0.517	0.346	0.0270	
60 minute winter	Storage Node_Perm Paving01	4.000	SW08	-8.7	-1.455	-0.241	0.0100	
60 minute winter	Storage Node_Perm Paving01	Infiltration		0.0				
60 minute summer	Storage Node_Perm Paving02	2.000	SW04	-1.9	-0.379	-0.040	0.0045	
60 minute summer	Storage Node_Perm Paving02	Infiltration		0.0				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	SW01	19	14.541	0.441	9.2	0.1681	0.0000	FLOOD RISK
30 minute summer	SW02	19	14.535	0.654	7.7	0.2020	0.0000	FLOOD RISK
30 minute summer	SW03	19	14.519	0.751	9.2	0.2094	0.0000	FLOOD RISK
60 minute winter	SW04	57	14.502	0.862	17.8	0.6246	0.0000	FLOOD RISK
60 minute winter	SW05	57	14.500	0.934	11.6	0.1812	0.0000	FLOOD RISK
60 minute winter	SW06	58	14.499	0.574	3.1	0.1763	0.0000	FLOOD RISK
60 minute winter	SW07	58	14.499	0.738	3.7	0.2169	0.0000	FLOOD RISK
60 minute winter	SW08	57	14.498	0.927	13.9	0.4720	0.0000	FLOOD RISK
60 minute winter	SW09	57	14.498	0.534	3.5	0.0848	0.0000	FLOOD RISK
60 minute winter	SW10(CP)	57	14.497	0.991	16.4	0.1576	0.0000	FLOOD RISK
60 minute winter	SW11	57	14.471	0.976	6.0	1.1041	0.0000	FLOOD RISK
60 minute summer	RE1	40	14.450	0.350	2.0	0.0448	0.0000	FLOOD RISK
60 minute winter	Outfall	57	13.381	0.041	5.0	0.0000	0.0000	OK
60 minute winter	Model Junction	57	14.498	0.981	7.7	0.0000	0.0000	FLOOD RISK
60 minute winter	Storage Node_IN	57	14.493	1.051	15.6	0.0000	0.0000	OK
60 minute winter	Storage Node_OUT	57	14.474	0.964	14.6	7.9705	0.0000	FLOOD RISK
60 minute winter	Storage Node_Perm Paving01	57	14.498	0.298	13.8	7.4702	0.0000	FLOOD RISK
60 minute winter	Storage Node_Perm Paving02	57	14.502	0.202	9.9	5.6557	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	SW01	1.000	SW02	-5.0	0.536	-0.279	0.3850	
30 minute summer	SW02	1.001	SW03	5.9	0.590	0.333	0.1984	
30 minute summer	SW03	1.002	SW04	8.8	0.500	0.496	0.2252	
60 minute winter	SW04	1.003	SW05	10.9	0.878	0.346	0.0415	
60 minute winter	SW05	1.004	SW10(CP)	11.1	0.677	0.624	0.1053	
60 minute winter	SW06	3.000	SW07	1.8	0.432	0.099	0.2717	
60 minute winter	SW07	3.001	SW08	3.6	0.348	0.207	0.3432	
60 minute winter	SW08	3.002	Model Junction	7.1	0.554	0.398	0.0948	
60 minute winter	SW09	5.001	Model Junction	-2.9	-0.184	-0.033	0.0329	
60 minute winter	SW10(CP)	1.005	Storage Node_IN	15.6	0.886	0.678	0.0679	
60 minute winter	SW11	6.001	Outfall	5.0	1.586	0.354	0.0090	42.2
60 minute summer	RE1	5.000	SW09	0.9	0.706	0.053	0.2388	
60 minute winter	Model Junction	3.003	SW10(CP)	6.8	0.446	0.378	0.0190	
60 minute winter	Storage Node_OUT	6.000	SW11	6.0	0.556	0.337	0.0270	
60 minute winter	Storage Node_Perm Paving01	4.000	SW08	-13.8	-2.160	-0.382	0.0100	
60 minute winter	Storage Node_Perm Paving01	Infiltration		0.0				
60 minute winter	Storage Node_Perm Paving02	2.000	SW04	-9.9	-1.709	-0.206	0.0083	
60 minute winter	Storage Node_Perm Paving02	Infiltration		0.0				