



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)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
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)
IC-0101 S	0.011	5.00	3.550	315	532186.861	327054.299	0.725
IC-0102 S	0.006	5.00	3.500	315	532176.230	327060.678	0.730
Soakaway DN	0.004	5.00	3.480	1200	532181.074	327064.184	0.799
Soakaway			3.480	1200	532181.961	327065.507	0.800

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
PN001-S	IC-0101 S	Soakaway DN	11.454	0.600	2.825	2.681	0.144	79.5	150	5.17	50.0
PN002-S	IC-0102 S	Soakaway DN	5.980	0.600	2.770	2.681	0.089	67.2	150	5.08	50.0
Soakaway Dummy Pipe	Soakaway DN	Soakaway	1.593	0.600	2.681	2.680	0.001	1592.8	300	5.24	50.0

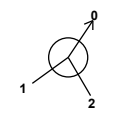
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
PN001-S	1.128	19.9	2.0	0.575	0.649	0.011	0.0	32	0.722
PN002-S	1.228	21.7	1.1	0.580	0.649	0.006	0.0	23	0.635
Soakaway Dummy Pipe	0.385	27.2	3.8	0.499	0.500	0.021	0.0	75	0.272

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
PN001-S	11.454	79.5	150	Circular	3.550	2.825	0.575	3.480	2.681	0.649
PN002-S	5.980	67.2	150	Circular	3.500	2.770	0.580	3.480	2.681	0.649
Soakaway Dummy Pipe	1.593	1592.8	300	Circular	3.480	2.681	0.499	3.480	2.680	0.500

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
PN001-S	IC-0101 S	315	Manhole	Adoptable	Soakaway DN	1200	Manhole	Adoptable
PN002-S	IC-0102 S	315	Manhole	Adoptable	Soakaway DN	1200	Manhole	Adoptable
Soakaway Dummy Pipe	Soakaway DN	1200	Manhole	Adoptable	Soakaway	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
IC-0101 S	532186.861	327054.299	3.550	0.725	315		0 PN001-S	2.825	150
IC-0102 S	532176.230	327060.678	3.500	0.730	315		0 PN002-S	2.770	150
Soakaway DN	532181.074	327064.184	3.480	0.799	1200		1 PN002-S 2 PN001-S	2.681 2.681	150 150
Soakaway	532181.961	327065.507	3.480	0.800	1200		0 Soakaway Dummy Pipe 1 Soakaway Dummy Pipe	2.681 2.680	300 300

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0
Summer CV	1.000	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	1.000	Drain Down Time (mins)	1440	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
10	0	0	0
30	0	0	0
30	35	0	0
100	0	0	0
100	40	0	0

Node Soakaway Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.08640	Invert Level (m)	2.680	Depth (m)	0.400
Side Inf Coefficient (m/hr)	0.08640	Time to half empty (mins)	208	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	1.00	Pit Length (m)	1.500		

Node Soakaway DN Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.681
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	796

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.370	93.5	0.0	0.671	0.0	0.0
0.369	0.0	0.0	0.670	93.5	0.0			

Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	IC-0101 S	264	2.918	0.093	0.3	0.0072	0.0000	OK
360 minute winter	IC-0102 S	264	2.918	0.148	0.2	0.0115	0.0000	OK
360 minute winter	Soakaway DN	264	2.918	0.237	0.6	0.2677	0.0000	OK
360 minute winter	Soakaway	264	2.918	0.238	0.5	2.4083	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.3	0.276	0.015	0.1663
360 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.2	0.088	0.010	0.1051
360 minute winter	Soakaway DN	Soakaway Dummy Pipe	Soakaway	0.5	0.310	0.020	0.0952
360 minute winter	Soakaway	Infiltration		0.2			

Results for 10 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	IC-0101 S	328	3.081	0.256	0.6	0.0200	0.0000	SURCHARGED
360 minute winter	IC-0102 S	328	3.081	0.311	0.3	0.0243	0.0000	SURCHARGED
360 minute winter	Soakaway DN	328	3.081	0.400	0.9	1.3103	0.0000	SURCHARGED
360 minute winter	Soakaway	328	3.081	0.401	0.8	4.0581	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.5	0.276	0.025	0.2016
360 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.2	0.154	0.011	0.1053
360 minute winter	Soakaway DN	Soakaway Dummy Pipe	Soakaway	0.8	0.310	0.031	0.1122
360 minute winter	Soakaway	Infiltration		0.2			

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	IC-0101 S	236	3.144	0.319	0.9	0.0249	0.0000	SURCHARGED
240 minute winter	IC-0102 S	236	3.144	0.374	0.5	0.0292	0.0000	SURCHARGED
240 minute winter	Soakaway DN	236	3.144	0.463	1.6	3.1572	0.0000	SURCHARGED
240 minute winter	Soakaway	236	3.144	0.464	1.3	4.1297	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
240 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.9	0.375	0.044	0.2016
240 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.5	0.189	0.021	0.1053
240 minute winter	Soakaway DN	Soakaway Dummy Pipe	Soakaway	1.3	0.344	0.049	0.1122
240 minute winter	Soakaway	Infiltration		0.2			

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	IC-0101 S	352	3.270	0.445	0.9	0.0347	0.0000	FLOOD RISK
360 minute winter	IC-0102 S	352	3.270	0.500	0.5	0.0390	0.0000	FLOOD RISK
360 minute winter	Soakaway DN	352	3.270	0.589	1.6	6.8180	0.0000	FLOOD RISK
360 minute winter	Soakaway	352	3.270	0.590	1.3	4.2716	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.9	0.190	0.043	0.2016
360 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.5	0.190	0.022	0.1053
360 minute winter	Soakaway DN	Soakaway Dummy Pipe	Soakaway	1.3	0.344	0.049	0.1122
360 minute winter	Soakaway	Infiltration		0.2			

Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	IC-0101 S	344	3.224	0.399	0.8	0.0311	0.0000	SURCHARGED
360 minute winter	IC-0102 S	344	3.224	0.454	0.5	0.0354	0.0000	FLOOD RISK
360 minute winter	Soakaway DN	344	3.224	0.543	1.5	5.4860	0.0000	FLOOD RISK
360 minute winter	Soakaway	344	3.224	0.544	1.2	4.2200	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.8	0.276	0.040	0.2016
360 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.5	0.185	0.021	0.1053
360 minute winter	Soakaway DN	Soakaway Dummy Pipe	Soakaway	1.2	0.310	0.044	0.1122
360 minute winter	Soakaway	Infiltration		0.2			

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	IC-0101 S	384	3.480	0.655	0.9	0.0511	0.0000	FLOOD RISK
240 minute winter	IC-0102 S	228	3.480	0.710	0.9	0.0554	0.0000	FLOOD RISK
360 minute summer	Soakaway DN	280	3.480	0.799	3.3	9.3467	1.1712	FLOOD
480 minute summer	Soakaway	384	3.480	0.800	1.3	4.5093	0.0239	FLOOD

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
480 minute winter	IC-0101 S	PN001-S	Soakaway DN	0.9	0.276	0.043	0.2016
240 minute winter	IC-0102 S	PN002-S	Soakaway DN	0.8	0.142	0.037	0.1053
360 minute summer	Soakaway DN	Soakaway Dummy Pipe	Soakaway	1.6	0.245	0.060	0.1122
480 minute summer	Soakaway	Infiltration		0.2			