

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	0.080
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)	Depth (m)
North subbase	0.028	5.00	6.350	0.380
South subbase	0.151	5.00	5.960	0.560

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
10	0	0	0
30	0	0	0
100	0	0	0
100	45	0	0

Node South subbase Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	5.400	Product Number	CTL-SHE-0067-2000-0990-2000
Design Depth (m)	0.990	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.0	Min Node Diameter (mm)	1200

Node North subbase Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	5.970	Product Number	CTL-SHE-0070-2000-0800-2000
Design Depth (m)	0.800	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.0	Min Node Diameter (mm)	1200

Node North subbase Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.5	Invert Level (m)	5.970
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	138

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	215.0	0.0	0.300	215.0	0.0	0.301	0.0	0.0

Node South subbase Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.5	Invert Level (m)	5.400
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	712

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	785.0	0.0	0.480	785.0	0.0	0.481	0.0	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
180 minute summer	North subbase	112	6.021	0.051	2.1	3.2837	0.0000	OK
360 minute summer	South subbase	240	5.510	0.110	7.4	25.9965	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
180 minute summer	North subbase	Hydro-Brake®	0.9	6.1
360 minute summer	South subbase	Hydro-Brake®	1.7	40.0

	The Civil Engineering Practice 11 Tungsten Building Portslade BN41 1RA	File: Permeable gravel surface subbase.p Network: Storm Kyanna Hodge November 2022	Page 4 Stakers Barn Farm North End Road, Yapton West Sussex
---	---	---	--

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 (m ³)	Flood (m ³)	Status
120 minute summer	North subbase	78	6.052	0.082	4.6	5.2801	0.0000	OK
360 minute summer	South subbase	264	5.584	0.184	11.7	43.2607	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
120 minute summer	North subbase	Hydro-Brake®	1.6	9.1
360 minute summer	South subbase	Hydro-Brake®	1.9	63.3

	The Civil Engineering Practice 11 Tungsten Building Portslade BN41 1RA	File: Permeable gravel surface subbase.p Network: Storm Kyanna Hodge November 2022	Page 5 Stakers Barn Farm North End Road, Yapton West Sussex
---	---	---	--

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 (m ³)	Flood (m ³)	Status
120 minute summer	North subbase	80	6.074	0.104	5.8	6.6910	0.0000	OK
240 minute winter	South subbase	228	5.637	0.237	12.8	55.7622	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
120 minute summer	North subbase	Hydro-Brake®	1.8	11.5
240 minute winter	South subbase	Hydro-Brake®	2.0	71.8

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 (m ³)	Flood (m ³)	Status
60 minute summer	North subbase	47	6.104	0.134	11.5	8.6424	0.0000	OK
240 minute winter	South subbase	232	5.706	0.306	15.9	72.1750	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m ³)
60 minute summer	North subbase	Hydro-Brake®	1.9	12.1
240 minute winter	South subbase	Hydro-Brake®	2.0	89.2

	The Civil Engineering Practice 11 Tungsten Building Portslade BN41 1RA	File: Permeable gravel surface subbase.p Network: Storm Kyanna Hodge November 2022	Page 7 Stakers Barn Farm North End Road, Yapton West Sussex
---	---	---	--

Results for 100 year +45% 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
120 minute summer	North subbase	86	6.176	0.206	10.5	13.2749	0.0000	OK
360 minute winter	South subbase	352	5.876	0.476	16.7	112.0020	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m³)
120 minute summer	North subbase	Hydro-Brake®	2.0	20.9
360 minute winter	South subbase	Hydro-Brake®	2.0	139.4