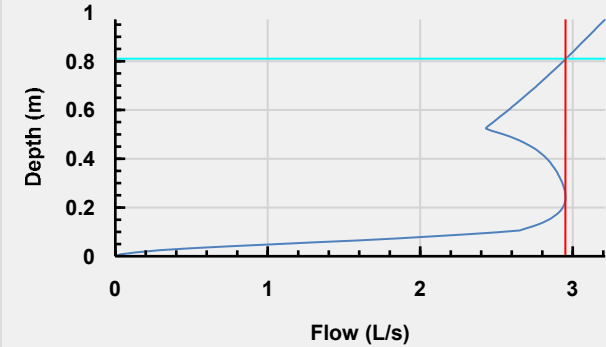
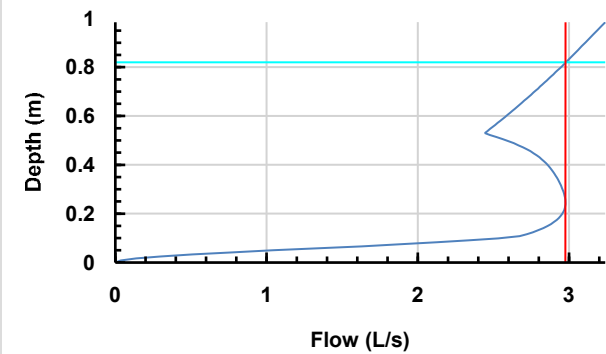


Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Junctions Storm Phase: SW				

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
S2	Outlet	S2.001	Free Discharge
S1 - STORMCLEANSER	Outlet	S1.000	Free Discharge
	Outlet	S1.003	Hydro-Brake®
	Invert Level (m)	65.482	
	Design Depth (m)	0.810	
	Design Flow (L/s)	2.96	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0085-2960-0810-2960	
S3 - FCC			
S12	Outlet	S4.000	Free Discharge
S15	Outlet	S3.007	Free Discharge
S10	Outlet	S3.002	Free Discharge
S11 - STORMCLEANSER	Outlet	S3.003	Free Discharge
	Outlet	S3.005	Hydro-Brake®

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Junctions Storm Phase: SW				

Junction	Outlet Name	Outgoing Connection	Outlet Type
S14 - FCC	Invert Level (m)	65.130	
	Design Depth (m)	0.820	
	Design Flow (L/s)	2.98	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0085-2980-0820-2980	
			
S9	Outlet	S3.001	Free Discharge
S8	Outlet	S3.000	Free Discharge
S13	Outlet	S4.001	Free Discharge

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Controls Storm Phase: SW				



Tank 2

Type : Cellular Storage

Dimensions

Exceedance Level (m)	66.932
Depth (m)	0.800
Base Level (m)	65.150
Number of Crates Long	40
Number of Crates Wide	25
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	380.982



Tank 1

Type : Cellular Storage

Dimensions

Exceedance Level (m)	67.120
Depth (m)	0.800
Base Level (m)	65.500
Number of Crates Long	22
Number of Crates Wide	27
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	226.540

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
	Company Address:			
Report Details: Type: Inflow Summary Storm Phase: SW				

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	S1 - STORMCLEANSER		Time of Concentration	0.277	100	0	100	0.277
Catchment Area (2)	S10		Time of Concentration	0.244	100	0	100	0.244
Catchment Area (5)	S2		Time of Concentration	0.099	100	0	100	0.099
Catchment Area (6)	S12		Time of Concentration	0.301	100	0	100	0.301
Catchment Area (7)	S8		Time of Concentration	0.051	100	0	100	0.051
TOTAL		0.0		0.972				0.972

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Title: Rainfall Analysis Criteria	Company Address:			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Reduced
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR	Type: FSR
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Region	England And Wales
M5-60 (mm)	18.0
Ratio R	0.358
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
1.0	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

Project:		Date:	
		11/03/2024	
Report Title:		Designed by:	Checked by:
UK and Ireland Rural Runoff Calculator		umam	Approved By:
		Company Address:	
			

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.972
SAAR (mm)	868.0
Soil	0.47
Region	Region 1
Urban	0
Return Period (years)	0

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 1	6.0	6.0	5.1	11.4	15.0

Project:	Date: 11/03/2024		
	Designed by: umarm	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: SW	Company Address:		





FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

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
S2	FSR: 1 years: +0 %: 15 mins: Winter	67.518	65.600	65.657	0.057	12.1	0.065	0.000	12.0	5.591	OK
S1 - STORMCLEANSER	FSR: 1 years: +0 %: 15 mins: Winter	67.043	65.543	65.663	0.120	33.7	0.136	0.000	33.4	15.559	OK
S3 - FCC	FSR: 1 years: +0 %: 360 mins: Winter	67.318	65.482	65.638	0.156	2.7	0.275	0.000	2.7	57.015	Surcharged
S5	FSR: 1 years: +0 %: 360 mins: Winter	67.000	65.374	65.412	0.038	2.7	0.000	0.000	2.7	56.997	OK
S12	FSR: 1 years: +0 %: 15 mins: Winter	67.516	65.700	65.799	0.099	36.6	0.112	0.000	36.0	16.912	OK
S15	FSR: 1 years: +0 %: 360 mins: Winter	66.865	65.087	65.122	0.035	2.8	0.039	0.000	2.8	73.938	OK
S10	FSR: 1 years: +0 %: 15 mins: Winter	67.018	65.322	65.457	0.135	33.5	0.152	0.000	32.7	16.563	OK
S11 - STORMCLEANSER	FSR: 1 years: +0 %: 15 mins: Winter	67.011	65.296	65.389	0.093	32.7	0.105	0.000	32.4	16.564	OK
S14 - FCC	FSR: 1 years: +0 %: 360 mins: Winter	66.866	65.130	65.303	0.173	2.8	0.305	0.000	2.8	74.023	Surcharged
S9	FSR: 1 years: +0 %: 15 mins: Winter	66.770	65.408	65.465	0.057	5.7	0.064	0.000	3.8	2.833	OK
S8	FSR: 1 years: +0 %: 15 mins: Winter	66.783	65.683	65.739	0.056	6.2	0.063	0.000	5.7	2.878	OK
S16	FSR: 1 years: +0 %: 360 mins: Winter	67.353	64.650	64.684	0.034	2.8	0.000	0.000	2.8	73.938	OK
S13	FSR: 1 years: +0 %: 360 mins: Winter	67.035	65.200	65.303	0.103	6.1	0.116	0.000	6.1	52.046	OK

Project:	Date: 11/03/2024		
	Designed by: umarm	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: SW	Company Address:		





FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Depth

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
S2	FSR: 30 years: +40 %: 360 mins: Winter	67.518	65.600	66.059	0.459	6.3	0.519	0.000	6.1	53.677	Surcharged
S1 - STORMCLEANSE R	FSR: 30 years: +40 %: 360 mins: Winter	67.043	65.543	66.059	0.516	17.4	0.584	0.000	17.3	148.755	Surcharged
S3 - FCC	FSR: 30 years: +40 %: 360 mins: Winter	67.318	65.482	66.059	0.577	3.1	1.020	0.000	3.0	101.885	Surcharged
S5	FSR: 30 years: +40 %: 360 mins: Winter	67.000	65.374	65.413	0.039	3.0	0.000	0.000	3.0	101.837	OK
S12	FSR: 30 years: +40 %: 15 mins: Winter	67.516	65.700	65.919	0.219	125.4	0.248	0.000	123.5	57.951	OK
S15	FSR: 30 years: +40 %: 30 mins: Summer	66.865	65.087	65.123	0.036	3.0	0.041	0.000	3.0	8.004	OK
S10	FSR: 30 years: +40 %: 360 mins: Winter	67.018	65.322	65.719	0.397	18.2	0.449	0.000	18.0	156.294	Surcharged
S11 - STORMCLEANSE R	FSR: 30 years: +40 %: 360 mins: Winter	67.011	65.296	65.718	0.422	18.0	0.478	0.000	17.6	155.634	Surcharged
S14 - FCC	FSR: 30 years: +40 %: 360 mins: Winter	66.866	65.130	65.718	0.588	3.1	1.040	0.000	3.0	99.990	Surcharged
S9	FSR: 30 years: +40 %: 360 mins: Winter	66.770	65.408	65.719	0.311	3.2	0.351	0.000	3.0	25.619	Surcharged
S8	FSR: 30 years: +40 %: 15 mins: Winter	66.783	65.683	65.784	0.101	21.2	0.115	0.000	20.0	9.832	OK
S16	FSR: 30 years: +40 %: 30 mins: Summer	67.353	64.650	64.685	0.035	3.0	0.000	0.000	3.0	8.004	OK
S13	FSR: 30 years: +40 %: 360 mins: Winter	67.035	65.200	65.718	0.518	18.9	0.586	0.000	18.6	160.619	Surcharged

Project:	Date: 11/03/2024		
	Designed by: umarm	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: SW	Company Address:		





FSR: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

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
S2	FSR: 100 years: +45 %: 360 mins: Winter	67.518	65.600	66.289	0.689	8.4	0.780	0.000	8.3	71.939	Surcharged
S1 - STORMCLEANSER	FSR: 100 years: +45 %: 360 mins: Winter	67.043	65.543	66.289	0.746	23.5	0.844	0.000	23.3	200.256	Surcharged
S3 - FCC	FSR: 100 years: +45 %: 360 mins: Winter	67.318	65.482	66.290	0.807	3.1	1.427	0.000	3.0	105.752	Surcharged
S5	FSR: 100 years: +45 %: 15 mins: Summer	67.000	65.374	65.413	0.039	3.0	0.000	0.000	3.0	3.897	OK
S12	FSR: 100 years: +45 %: 15 mins: Winter	67.516	65.700	66.080	0.380	167.6	0.429	0.000	157.9	77.427	Surcharged
S15	FSR: 100 years: +45 %: 15 mins: Summer	66.865	65.087	65.123	0.036	3.0	0.041	0.000	3.0	3.707	OK
S10	FSR: 100 years: +45 %: 360 mins: Winter	67.018	65.322	65.936	0.614	23.9	0.695	0.000	23.5	208.565	Surcharged
S11 - STORMCLEANSER	FSR: 100 years: +45 %: 360 mins: Winter	67.011	65.296	65.936	0.640	23.5	0.724	0.000	23.5	207.624	Surcharged
S14 - FCC	FSR: 100 years: +45 %: 360 mins: Winter	66.866	65.130	65.936	0.806	3.1	1.425	0.000	3.0	106.600	Surcharged
S9	FSR: 100 years: +45 %: 360 mins: Winter	66.770	65.408	65.937	0.528	4.3	0.598	0.000	3.3	32.494	Surcharged
S8	FSR: 100 years: +45 %: 360 mins: Winter	66.783	65.683	65.936	0.253	4.3	0.287	0.000	4.3	36.040	OK
S16	FSR: 100 years: +45 %: 15 mins: Summer	67.353	64.650	64.685	0.035	3.0	0.000	0.000	3.0	3.707	OK
S13	FSR: 100 years: +45 %: 360 mins: Winter	67.035	65.200	65.936	0.736	25.5	0.833	0.000	25.2	216.112	Surcharged

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Controls Summary Storm Phase: SW				



FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS 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)	Percentage Available (%)	Status
Tank 2	FSR: 1 years: +0 %: 360 mins: Winter	65.303	65.303	0.153	0.153	12.0	72.618	0.000	0.000	2.8	74.194	80.939	OK
Tank 1	FSR: 1 years: +0 %: 360 mins: Winter	65.638	65.638	0.138	0.138	7.6	38.917	0.000	0.000	2.7	57.106	82.821	OK

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Controls Summary Storm Phase: SW				



FSR: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS 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)	Percentage Available (%)	Status
Tank 2	FSR: 30 years: +40 %: 360 mins: Winter	65.718	65.718	0.568	0.568	36.2	269.995	0.000	0.000	3.1	100.977	29.132	OK
Tank 1	FSR: 30 years: +40 %: 360 mins: Winter	66.059	66.059	0.559	0.559	23.4	157.731	0.000	0.000	3.1	102.651	30.374	OK

Project:	Date: 11/03/2024			
	Designed by: umarm	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Controls Summary				
Storm Phase: SW				



FSR: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS 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)	Percentage Available (%)	Status
Tank 2	FSR: 100 years: +45 %: 360 mins: Winter	65.936	65.936	0.786	0.786	48.7	373.561	0.000	0.000	3.1	107.961	1.948	OK
Tank 1	FSR: 100 years: +45 %: 360 mins: Winter	66.289	66.289	0.789	0.789	31.6	222.730	0.000	0.000	3.1	106.933	1.682	OK