

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026		
	Designed by: CH	Checked by: FS	Approved By: DD
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		





Catchment Area

Type : Catchment Area

Area (ha)	0.788
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Dynamic Sizing	
Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
		Company Address: Sports Labs Ltd 1 Adam Square Livingston			

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
Manhole	Manhole	333942.885	186515.656	6.219	6.421	-0.202	Circular	1.200
Manhole (1)	Manhole	333947.309	186500.375	0.000	0.600	-0.600	Circular	1.200

Name	Lock
Manhole	None
Manhole (1)	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
Manhole	Inlet	Pipe	(None)	No Restriction
Manhole (1)	Inlet	Pipe (1)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
Manhole	Outlet	Pipe (1)	Orifice
	Diameter (m)	0.045	
	Coefficient of Discharge	0.600	
	Invert Level (m)	-0.202	

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Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		



Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	6.162
Depth (m)	0.350
Base Level (m)	5.812
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	72.001
Long. Slope (1:X)	250.00
Width (m)	109.560
Total Volume (m³)	712.695

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	80
No. of Barrels	12
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	Pipe
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	500.0
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Report Details: Type: Manhole Schedule Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
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Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Manhole	6.219 -0.202	Diameter / Length: 1.200	{1} Pipe	Pipe	-0.202	Diam/Width: 150	Manhole
E:333942.885 N:186515.656	6.421		{a} Pipe (1)	Pipe	-0.202	Diam/Width: 150	Not Applicable
Manhole (1)	0.000 -0.600	Diameter / Length: 1.200	{1} Pipe (1)	Pipe	-0.600	Diam/Width: 150	Manhole
E:333947.309 N:186500.375	0.600						Not Applicable

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		CH	FS	DD		
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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.788	100	0	100	0.788
TOTAL		0.0		0.788				0.788

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026			
Report Details: Type: Network Design Criteria Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
		Company Address: Sports Labs Ltd 1 Adam Square Livingston			

Flow Options

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

1.1

Type: FSR

Return Period (years)	1.0
Region	England And Wales
M5-60 (mm)	20.0
Ratio R	0.333

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	0.300
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

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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
750	1.800	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

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

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

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026			
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Report Details: Type: Outfall Details Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Manhole (1)	Free Discharge			

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026		
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Report Title: Rainfall Analysis Criteria	Company Address: Sports Labs Ltd 1 Adam Square Livingston		



Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Shortest
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026		
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Report Title: UK and Ireland Rural Runoff Calculator	Company Address: Sports Labs Ltd 1 Adam Square Livingston		



ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.788
SAAR (mm)	964.0
Soil	0.37
Region	Region 9
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 9	3.3	3.3	2.9	5.8	7.2

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Summary Results for Catchment Area: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
1.100+40: 100 years: +40 %: 15 mins: Summer	0.79	441.6	191.419
1.100+40: 100 years: +40 %: 15 mins: Winter	0.79	414.3	191.421
1.100+40: 100 years: +40 %: 30 mins: Summer	0.79	410.6	259.354
1.100+40: 100 years: +40 %: 30 mins: Winter	0.79	331.6	259.354
1.100+40: 100 years: +40 %: 60 mins: Summer	0.79	316.1	335.128
1.100+40: 100 years: +40 %: 60 mins: Winter	0.79	228.4	335.128
1.100+40: 100 years: +40 %: 120 mins: Summer	0.79	214.7	417.052
1.100+40: 100 years: +40 %: 120 mins: Winter	0.79	145.1	417.044
1.100+40: 100 years: +40 %: 240 mins: Summer	0.79	135.0	500.981
1.100+40: 100 years: +40 %: 240 mins: Winter	0.79	87.8	500.987
1.100+40: 100 years: +40 %: 360 mins: Summer	0.79	100.8	555.417
1.100+40: 100 years: +40 %: 360 mins: Winter	0.79	65.0	555.401
1.100+40: 100 years: +40 %: 480 mins: Summer	0.79	81.2	596.501
1.100+40: 100 years: +40 %: 480 mins: Winter	0.79	52.4	596.504

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1.100+40: 100 years: +40 %: 960 mins: Summer	0.79	48.0	704.579
1.100+40: 100 years: +40 %: 960 mins: Winter	0.79	30.9	704.569
1.100+40: 100 years: +40 %: 1440 mins: Summer	0.79	35.1	774.046
1.100+40: 100 years: +40 %: 1440 mins: Winter	0.79	22.7	774.010
1.30: 30 years: +0 %: 15 mins: Summer	0.79	243.6	105.582
1.30: 30 years: +0 %: 15 mins: Winter	0.79	228.5	105.583
1.30: 30 years: +0 %: 30 mins: Summer	0.79	224.3	141.660
1.30: 30 years: +0 %: 30 mins: Winter	0.79	181.1	141.662
1.30: 30 years: +0 %: 60 mins: Summer	0.79	171.8	182.069
1.30: 30 years: +0 %: 60 mins: Winter	0.79	124.1	182.071
1.30: 30 years: +0 %: 120 mins: Summer	0.79	116.8	226.846
1.30: 30 years: +0 %: 120 mins: Winter	0.79	78.9	226.852
1.30: 30 years: +0 %: 240 mins: Summer	0.79	74.2	275.435
1.30: 30 years: +0 %: 240 mins: Winter	0.79	48.3	275.437
1.30: 30 years: +0 %: 360 mins: Summer	0.79	55.8	307.406
1.30: 30 years: +0 %: 360 mins: Winter	0.79	36.0	307.412
1.30: 30 years: +0 %: 480 mins: Summer	0.79	45.2	331.850

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1.30: 30 years: +0 %: 480 mins: Winter	0.79	29.1	331.853
1.30: 30 years: +0 %: 960 mins: Summer	0.79	27.0	397.453
1.30: 30 years: +0 %: 960 mins: Winter	0.79	17.4	397.442
1.30: 30 years: +0 %: 1440 mins: Summer	0.79	20.0	440.612
1.30: 30 years: +0 %: 1440 mins: Winter	0.79	12.9	440.646

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Summary Results for Manhole: Rank By: Max. Depth

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
1.100+40: 100 years: +40 %: 15 mins: Summer	6.219	-0.202	5.898	6.100	53.6	6.899	0.000	10.4	12.728	Surcharged
1.100+40: 100 years: +40 %: 15 mins: Winter	6.219	-0.202	5.898	6.100	51.0	6.899	0.000	10.4	12.782	Surcharged
1.100+40: 100 years: +40 %: 30 mins: Summer	6.219	-0.202	5.948	6.150	50.3	6.956	0.000	10.4	28.486	Flood Risk
1.100+40: 100 years: +40 %: 30 mins: Winter	6.219	-0.202	5.948	6.150	45.8	6.956	0.000	10.4	28.709	Flood Risk
1.100+40: 100 years: +40 %: 60 mins: Summer	6.219	-0.202	5.997	6.199	33.3	7.012	0.000	10.5	60.836	Flood Risk
1.100+40: 100 years: +40 %: 60 mins: Winter	6.219	-0.202	5.997	6.200	31.8	7.012	0.000	10.5	61.346	Flood Risk
1.100+40: 100 years: +40 %: 120 mins: Summer	6.219	-0.202	6.040	6.242	22.0	7.060	0.000	10.5	126.892	Flood Risk
1.100+40: 100 years: +40 %: 120 mins: Winter	6.219	-0.202	6.040	6.243	22.0	7.060	0.000	10.5	127.824	Flood Risk
1.100+40: 100 years: +40 %: 240 mins: Summer	6.219	-0.202	6.071	6.274	16.6	7.095	0.000	10.5	259.794	Flood Risk
1.100+40: 100 years: +40 %: 240 mins: Winter	6.219	-0.202	6.072	6.274	17.4	7.096	0.000	10.5	261.440	Flood Risk
1.100+40: 100 years: +40 %: 360 mins: Summer	6.219	-0.202	6.082	6.284	14.6	7.107	0.000	10.5	393.003	Flood Risk
1.100+40: 100 years: +40 %: 360 mins: Winter	6.219	-0.202	6.082	6.285	15.2	7.108	0.000	10.5	395.230	Flood Risk
1.100+40: 100 years: +40 %: 480 mins: Summer	6.219	-0.202	6.080	6.282	13.4	7.105	0.000	10.5	525.707	Flood Risk
1.100+40: 100 years: +40 %: 480 mins: Winter	6.219	-0.202	6.080	6.282	13.8	7.105	0.000	10.5	528.683	Flood Risk
1.100+40: 100 years: +40 %: 960 mins: Summer	6.219	-0.202	6.064	6.266	12.1	7.087	0.000	10.5	701.786	Flood Risk
1.100+40: 100 years: +40 %: 960 mins: Winter	6.219	-0.202	6.054	6.256	12.0	7.076	0.000	10.5	701.839	Flood Risk
1.100+40: 100 years: +40 %: 1440 mins: Summer	6.219	-0.202	6.044	6.246	11.9	7.064	0.000	10.5	772.789	Flood Risk
1.100+40: 100 years: +40 %: 1440 mins: Winter	6.219	-0.202	6.022	6.224	11.4	7.040	0.000	10.5	772.803	Flood Risk
1.30: 30 years: +0 %: 15 mins: Summer	6.219	-0.202	5.813	6.015	24.3	6.803	0.000	10.3	11.195	Surcharged
1.30: 30 years: +0 %: 15 mins: Winter	6.219	-0.202	5.813	6.015	24.1	6.803	0.000	10.3	11.194	Surcharged

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1.30: 30 years: +0 %: 30 mins: Summer	6.219	-0.202	5.884	6.086	30.4	6.883	0.000	10.4	26.491	Surcharged
1.30: 30 years: +0 %: 30 mins: Winter	6.219	-0.202	5.883	6.086	28.6	6.883	0.000	10.4	26.589	Surcharged
1.30: 30 years: +0 %: 60 mins: Summer	6.219	-0.202	5.927	6.129	29.4	6.932	0.000	10.4	57.109	Flood Risk
1.30: 30 years: +0 %: 60 mins: Winter	6.219	-0.202	5.926	6.128	25.0	6.931	0.000	10.4	57.563	Flood Risk
1.30: 30 years: +0 %: 120 mins: Summer	6.219	-0.202	5.952	6.155	24.6	6.961	0.000	10.4	119.051	Flood Risk
1.30: 30 years: +0 %: 120 mins: Winter	6.219	-0.202	5.951	6.154	20.7	6.960	0.000	10.4	120.291	Flood Risk
1.30: 30 years: +0 %: 240 mins: Summer	6.219	-0.202	5.961	6.164	18.7	6.971	0.000	10.4	243.256	Flood Risk
1.30: 30 years: +0 %: 240 mins: Winter	6.219	-0.202	5.959	6.161	16.7	6.968	0.000	10.4	246.027	Flood Risk
1.30: 30 years: +0 %: 360 mins: Summer	6.219	-0.202	5.962	6.164	15.9	6.972	0.000	10.4	297.247	Flood Risk
1.30: 30 years: +0 %: 360 mins: Winter	6.219	-0.202	5.958	6.161	14.8	6.968	0.000	10.4	297.295	Flood Risk
1.30: 30 years: +0 %: 480 mins: Summer	6.219	-0.202	5.960	6.162	14.6	6.969	0.000	10.4	324.333	Flood Risk
1.30: 30 years: +0 %: 480 mins: Winter	6.219	-0.202	5.954	6.157	13.5	6.963	0.000	10.4	324.383	Flood Risk
1.30: 30 years: +0 %: 960 mins: Summer	6.219	-0.202	5.948	6.150	12.5	6.956	0.000	10.4	394.710	Flood Risk
1.30: 30 years: +0 %: 960 mins: Winter	6.219	-0.202	5.922	6.124	11.6	6.927	0.000	10.4	394.753	Flood Risk
1.30: 30 years: +0 %: 1440 mins: Summer	6.219	-0.202	5.921	6.123	11.8	6.925	0.000	10.4	439.434	Flood Risk
1.30: 30 years: +0 %: 1440 mins: Winter	6.219	-0.202	5.863	6.066	10.9	6.860	0.000	10.4	439.511	Surcharged

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Summary Results for Manhole (1): Rank By: Max. Depth

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
1.100+40: 100 years: +40 %: 15 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	12.645	OK
1.100+40: 100 years: +40 %: 15 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	12.700	OK
1.100+40: 100 years: +40 %: 30 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	28.402	OK
1.100+40: 100 years: +40 %: 30 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	28.625	OK
1.100+40: 100 years: +40 %: 60 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	60.751	OK
1.100+40: 100 years: +40 %: 60 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	61.261	OK
1.100+40: 100 years: +40 %: 120 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	126.807	OK
1.100+40: 100 years: +40 %: 120 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	127.739	OK
1.100+40: 100 years: +40 %: 240 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	259.709	OK
1.100+40: 100 years: +40 %: 240 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	261.354	OK
1.100+40: 100 years: +40 %: 360 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	392.918	OK
1.100+40: 100 years: +40 %: 360 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	395.145	OK
1.100+40: 100 years: +40 %: 480 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	525.622	OK
1.100+40: 100 years: +40 %: 480 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	528.598	OK
1.100+40: 100 years: +40 %: 960 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	701.777	OK
1.100+40: 100 years: +40 %: 960 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	701.831	OK
1.100+40: 100 years: +40 %: 1440 mins: Summer	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	772.784	OK
1.100+40: 100 years: +40 %: 1440 mins: Winter	0.000	-0.600	-0.537	0.063	10.5	0.000	0.000	10.5	772.798	OK
1.30: 30 years: +0 %: 15 mins: Summer	0.000	-0.600	-0.538	0.062	10.3	0.000	0.000	10.3	11.113	OK
1.30: 30 years: +0 %: 15 mins: Winter	0.000	-0.600	-0.538	0.062	10.3	0.000	0.000	10.3	11.112	OK

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1.30: 30 years: +0 %: 30 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	26.407	OK
1.30: 30 years: +0 %: 30 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	26.504	OK
1.30: 30 years: +0 %: 60 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	57.024	OK
1.30: 30 years: +0 %: 60 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	57.478	OK
1.30: 30 years: +0 %: 120 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	118.966	OK
1.30: 30 years: +0 %: 120 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	120.206	OK
1.30: 30 years: +0 %: 240 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	243.172	OK
1.30: 30 years: +0 %: 240 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	245.943	OK
1.30: 30 years: +0 %: 360 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	297.225	OK
1.30: 30 years: +0 %: 360 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	297.274	OK
1.30: 30 years: +0 %: 480 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	324.316	OK
1.30: 30 years: +0 %: 480 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	324.367	OK
1.30: 30 years: +0 %: 960 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	394.702	OK
1.30: 30 years: +0 %: 960 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	394.745	OK
1.30: 30 years: +0 %: 1440 mins: Summer	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	439.429	OK
1.30: 30 years: +0 %: 1440 mins: Winter	0.000	-0.600	-0.537	0.063	10.4	0.000	0.000	10.4	439.506	OK

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
		Company Address: Sports Labs Ltd 1 Adam Square Livingston			



Summary Results for Porous Paving: Rank By: Max. Avg. Depth

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
1.100+40: 100 years: +40 %: 15 mins: Summer	6.163	5.903	0.091	441.6	177.948	0.000	0.000	53.6	19.898	75.032	OK
1.100+40: 100 years: +40 %: 15 mins: Winter	6.163	5.903	0.091	414.3	178.028	0.000	0.000	51.0	19.952	75.020	OK
1.100+40: 100 years: +40 %: 30 mins: Summer	6.176	5.955	0.143	410.6	239.636	0.000	0.000	50.3	35.714	66.376	OK
1.100+40: 100 years: +40 %: 30 mins: Winter	6.175	5.955	0.143	331.6	239.665	0.000	0.000	45.8	35.937	66.372	OK
1.100+40: 100 years: +40 %: 60 mins: Summer	6.185	6.014	0.202	316.1	302.081	0.000	0.000	33.3	68.121	57.614	OK
1.100+40: 100 years: +40 %: 60 mins: Winter	6.181	6.014	0.202	228.4	302.220	0.000	0.000	31.8	68.632	57.595	OK
1.100+40: 100 years: +40 %: 120 mins: Summer	6.184	6.057	0.245	214.7	356.198	0.000	0.000	22.0	134.221	50.021	OK
1.100+40: 100 years: +40 %: 120 mins: Winter	6.177	6.057	0.245	145.1	356.522	0.000	0.000	22.0	135.153	49.976	OK
1.100+40: 100 years: +40 %: 240 mins: Summer	6.171	6.088	0.276	135.0	383.557	0.000	0.000	16.6	267.099	46.182	OK
1.100+40: 100 years: +40 %: 240 mins: Winter	6.159	6.089	0.277	87.9	384.805	0.000	0.000	17.4	268.743	46.007	OK
1.100+40: 100 years: +40 %: 360 mins: Summer	6.158	6.099	0.287	100.8	384.578	0.000	0.000	14.6	400.252	46.039	OK
1.100+40: 100 years: +40 %: 360 mins: Winter	6.145	6.099	0.287	65.0	384.366	0.000	0.000	15.2	402.477	46.069	OK

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026		
	Designed by: CH	Checked by: FS	Approved By: DD
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		



1.100+40: 100 years: +40 %: 480 mins: Summer	6.149	6.097	0.285	81.2	379.91 2	0.000	0.000	13.4	532.879	46.694	OK
1.100+40: 100 years: +40 %: 480 mins: Winter	6.140	6.097	0.285	52.4	376.56 2	0.000	0.000	13.8	535.852	47.164	OK
1.100+40: 100 years: +40 %: 960 mins: Summer	6.137	6.081	0.269	48.0	343.55 3	0.000	0.000	12.1	701.801	51.795	OK
1.100+40: 100 years: +40 %: 960 mins: Winter	6.130	6.071	0.259	30.9	322.75 2	0.000	0.000	12.0	701.854	54.714	OK
1.100+40: 100 years: +40 %: 1440 mins: Summer	6.131	6.060	0.248	35.1	302.94 0	0.000	0.000	11.9	772.798	57.494	OK
1.100+40: 100 years: +40 %: 1440 mins: Winter	6.125	6.039	0.227	22.7	260.62 9	0.000	0.000	11.4	772.812	63.431	OK
1.30: 30 years: +0 %: 15 mins: Summer	6.137	5.844	0.032	243.6	93.890	0.000	0.000	24.3	18.263	86.826	OK
1.30: 30 years: +0 %: 15 mins: Winter	6.137	5.844	0.032	228.5	93.967	0.000	0.000	24.1	18.262	86.815	OK
1.30: 30 years: +0 %: 30 mins: Summer	6.143	5.889	0.077	224.3	124.20 7	0.000	0.000	30.4	33.643	82.572	OK
1.30: 30 years: +0 %: 30 mins: Winter	6.143	5.889	0.077	181.1	124.39 0	0.000	0.000	28.6	33.740	82.547	OK
1.30: 30 years: +0 %: 60 mins: Summer	6.146	5.933	0.121	171.8	153.09 5	0.000	0.000	29.4	64.311	78.519	OK
1.30: 30 years: +0 %: 60 mins: Winter	6.145	5.932	0.120	124.1	153.31 5	0.000	0.000	25.0	64.764	78.488	OK
1.30: 30 years: +0 %: 120 mins: Summer	6.145	5.960	0.148	116.8	174.10 5	0.000	0.000	24.6	126.255	75.571	OK
1.30: 30 years: +0 %: 120 mins: Winter	6.142	5.959	0.147	78.9	174.33 4	0.000	0.000	20.7	127.494	75.539	OK
1.30: 30 years: +0 %: 240 mins: Summer	6.140	5.978	0.166	74.2	183.27 1	0.000	0.000	18.7	250.303	74.285	OK
1.30: 30 years: +0 %: 240 mins: Winter	6.135	5.976	0.164	48.3	180.03 0	0.000	0.000	16.7	253.042	74.740	OK

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026		
		Designed by: CH	Checked by: FS	Approved By: DD
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Sports Labs Ltd 1 Adam Square Livingston		



1.30: 30 years: +0 %: 360 mins: Summer	6.136	5.979	0.167	55.8	183.12 9	0.000	0.000	15.9	297.295	74.305	OK
1.30: 30 years: +0 %: 360 mins: Winter	6.131	5.975	0.163	36.0	176.00 5	0.000	0.000	14.8	297.343	75.304	OK
1.30: 30 years: +0 %: 480 mins: Summer	6.133	5.976	0.164	45.2	178.45 9	0.000	0.000	14.6	324.367	74.960	OK
1.30: 30 years: +0 %: 480 mins: Winter	6.128	5.971	0.159	29.1	166.91 0	0.000	0.000	13.5	324.418	76.580	OK
1.30: 30 years: +0 %: 960 mins: Summer	6.126	5.955	0.143	27.1	147.94 0	0.000	0.000	12.5	394.725	79.242	OK
1.30: 30 years: +0 %: 960 mins: Winter	6.121	5.928	0.116	17.5	119.34 9	0.000	0.000	11.6	394.768	83.254	OK
1.30: 30 years: +0 %: 1440 mins: Summer	6.123	5.927	0.115	20.0	118.54 2	0.000	0.000	11.8	439.443	83.367	OK
1.30: 30 years: +0 %: 1440 mins: Winter	6.118	5.872	0.060	12.9	80.492	0.000	0.000	10.9	439.519	88.706	OK

Project: Dragon Park Newport International Sports Village Newport	Date: 07/01/2026		
	Designed by: CH	Checked by: FS	Approved By: DD
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		





Summary Results for Pipe: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.100+40: 100 years: +40 %: 15 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.887	0.150	19.898	3.0	0.25	53.6	OK
1.100+40: 100 years: +40 %: 15 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.887	0.150	19.952	2.9	0.24	51.0	OK
1.100+40: 100 years: +40 %: 30 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.913	0.150	35.714	2.8	0.23	50.3	OK
1.100+40: 100 years: +40 %: 30 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.913	0.150	35.937	2.6	0.21	45.8	OK
1.100+40: 100 years: +40 %: 60 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.940	0.150	68.121	1.9	0.15	33.3	OK
1.100+40: 100 years: +40 %: 60 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.940	0.150	68.632	1.8	0.15	31.8	OK
1.100+40: 100 years: +40 %: 120 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.962	0.150	134.221	1.2	0.1	22.0	Surcharged
1.100+40: 100 years: +40 %: 120 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.963	0.150	135.153	1.2	0.1	22.0	Surcharged
1.100+40: 100 years: +40 %: 240 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.974	0.150	267.099	0.9	0.08	16.6	Surcharged
1.100+40: 100 years: +40 %: 240 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.975	0.150	268.743	1.0	0.08	17.4	Surcharged
1.100+40: 100 years: +40 %: 360 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.974	0.150	400.252	0.8	0.07	14.6	Surcharged
1.100+40: 100 years: +40 %: 360 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.974	0.150	402.477	0.9	0.07	15.2	Surcharged
1.100+40: 100 years: +40 %: 480 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.972	0.150	532.879	0.8	0.06	13.4	Surcharged
1.100+40: 100 years: +40 %: 480 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.971	0.150	535.852	0.8	0.06	13.8	Surcharged
1.100+40: 100 years: +40 %: 960 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.957	0.150	701.801	0.7	0.06	12.1	OK
1.100+40: 100 years: +40 %: 960 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.948	0.150	701.854	0.7	0.06	12.0	OK
1.100+40: 100 years: +40 %: 1440 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.940	0.150	772.798	0.7	0.05	11.9	OK
1.100+40: 100 years: +40 %: 1440 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.922	0.150	772.812	0.6	0.05	11.4	OK
1.30: 30 years: +0 %: 15 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.852	0.150	18.263	1.4	0.11	24.3	OK
1.30: 30 years: +0 %: 15 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.852	0.150	18.262	1.4	0.11	24.1	OK
1.30: 30 years: +0 %: 30 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.864	0.150	33.643	1.7	0.14	30.4	OK
1.30: 30 years: +0 %: 30 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.865	0.150	33.740	1.6	0.13	28.6	OK
1.30: 30 years: +0 %: 60 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.877	0.150	64.311	1.7	0.14	29.4	OK
1.30: 30 years: +0 %: 60 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.877	0.150	64.764	1.4	0.12	25.0	OK
1.30: 30 years: +0 %: 120 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.886	0.150	126.255	1.4	0.11	24.6	OK
1.30: 30 years: +0 %: 120 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.886	0.150	127.494	1.2	0.1	20.7	OK
1.30: 30 years: +0 %: 240 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.889	0.150	250.303	1.1	0.09	18.7	OK
1.30: 30 years: +0 %: 240 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.888	0.150	253.042	0.9	0.08	16.7	OK

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026				
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: CH	Checked by: FS	Approved By: DD		
		Company Address: Sports Labs Ltd 1 Adam Square Livingston				

1.30: 30 years: +0 %: 360 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.889	0.150	297.295	0.9	0.07	15.9	OK
1.30: 30 years: +0 %: 360 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.886	0.150	297.343	0.8	0.07	14.8	OK
1.30: 30 years: +0 %: 480 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.887	0.150	324.367	0.8	0.07	14.6	OK
1.30: 30 years: +0 %: 480 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.882	0.150	324.418	0.8	0.06	13.5	OK
1.30: 30 years: +0 %: 960 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.874	0.150	394.725	0.7	0.06	12.5	OK
1.30: 30 years: +0 %: 960 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.862	0.150	394.768	0.7	0.05	11.6	OK
1.30: 30 years: +0 %: 1440 mins: Summer	Pipe	Porous Paving	Manhole	6.167	5.862	0.150	439.443	0.7	0.05	11.8	OK
1.30: 30 years: +0 %: 1440 mins: Winter	Pipe	Porous Paving	Manhole	6.167	5.846	0.150	439.519	0.6	0.05	10.9	OK

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026			
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
		Company Address: Sports Labs Ltd 1 Adam Square Livingston			



Summary Results for Pipe (1): Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.100+40: 100 years: +40 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.898	0.064	12.645	1.4	0.37	10.4	Surcharged
1.100+40: 100 years: +40 %: 15 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.898	0.064	12.700	1.4	0.37	10.4	Surcharged
1.100+40: 100 years: +40 %: 30 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.948	0.064	28.402	1.4	0.37	10.4	Flood Risk
1.100+40: 100 years: +40 %: 30 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.948	0.064	28.625	1.4	0.37	10.4	Flood Risk
1.100+40: 100 years: +40 %: 60 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.997	0.065	60.751	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 60 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.997	0.065	61.261	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 120 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.040	0.065	126.807	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 120 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.040	0.065	127.739	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 240 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.071	0.065	259.709	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 240 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.072	0.065	261.354	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 360 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.082	0.065	392.918	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 360 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.082	0.065	395.145	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 480 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.080	0.065	525.622	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 480 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.080	0.065	528.598	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 960 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.064	0.065	701.777	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 960 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.054	0.065	701.831	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 1440 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	6.044	0.065	772.784	1.4	0.37	10.5	Flood Risk
1.100+40: 100 years: +40 %: 1440 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	6.022	0.065	772.798	1.4	0.37	10.5	Flood Risk
1.30: 30 years: +0 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.813	0.064	11.113	1.4	0.37	10.3	Surcharged
1.30: 30 years: +0 %: 15 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.813	0.064	11.112	1.4	0.37	10.3	Surcharged
1.30: 30 years: +0 %: 30 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.884	0.064	26.407	1.4	0.37	10.4	Surcharged
1.30: 30 years: +0 %: 30 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.883	0.064	26.504	1.4	0.37	10.4	Surcharged
1.30: 30 years: +0 %: 60 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.927	0.064	57.024	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 60 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.926	0.064	57.478	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 120 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.952	0.064	118.966	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 120 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.951	0.064	120.206	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 240 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.961	0.064	243.172	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 240 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.959	0.064	245.943	1.4	0.37	10.4	Flood Risk

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026				
Report Details: Type: Connections Summary Storm Phase: Phase		Designed by: CH	Checked by: FS	Approved By: DD		
		Company Address: Sports Labs Ltd 1 Adam Square Livingston				

1.30: 30 years: +0 %: 360 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.962	0.064	297.225	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 360 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.958	0.064	297.274	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 480 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.960	0.064	324.316	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 480 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.954	0.064	324.367	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 960 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.948	0.064	394.702	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 960 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.922	0.064	394.745	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 1440 mins: Summer	Pipe	Manhole	Manhole (1)	6.219	5.921	0.064	439.429	1.4	0.37	10.4	Flood Risk
1.30: 30 years: +0 %: 1440 mins: Winter	Pipe	Manhole	Manhole (1)	6.219	5.863	0.064	439.506	1.4	0.37	10.4	Surcharged

Project: Dragon Park Newport International Sports Village Newport		Date: 07/01/2026			
Report Details: Type: Phase Management Storm Phase: Phase		Designed by: CH	Checked by: FS		Approved By: DD
		Company Address: Sports Labs Ltd 1 Adam Square Livingston			

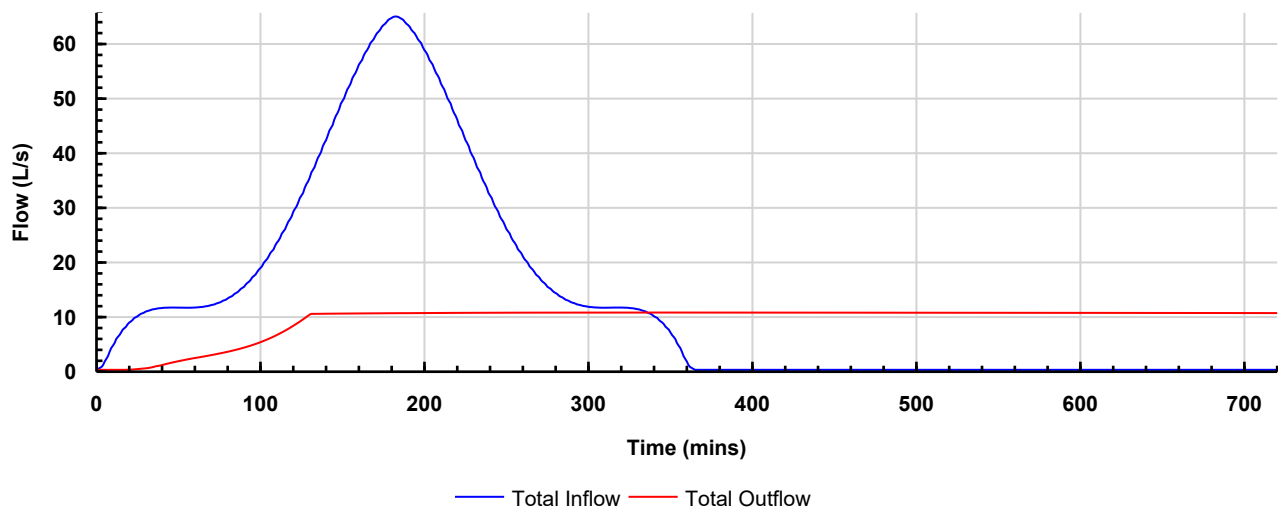

Phase
1.100+40: 100 years: Increase Rainfall (%): +40: 360 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Manhole (1)			10.5	395.145
TOTAL	65.0	555.401	10.5	395.145

Graphs

Flow Graph



Volume Graph

