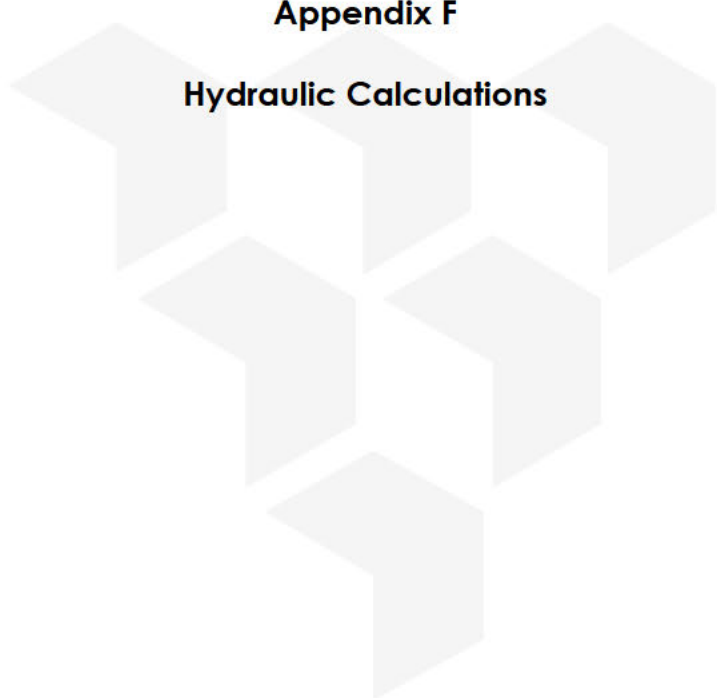




Appendix F

Hydraulic Calculations

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	19/06/2025
Calculated by	CS
Reference	8220585
Model version	2.0.1

Location

Site name	Mowbray
Site location	Horsham



Site easting	519314
Site northing	133364

Site details

Total site area (ha)	1	ha
----------------------	--------------------------------	----

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MORE INFO

Greenfield runoff

Method

Method	IH124		
	<u>My value</u>	☐	<u>Map value</u>
SAAR (mm)	810	mm	810
How should SPR be derived?	WRAP soil type		
WRAP soil type	4	☐	4
SPR	0.47		
QBar (IH124) (l/s)	5.7		l/s

Growth curve factors

	<u>My value</u>	☐	<u>Map value</u>
Hydrological region	7		7
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	IH124	
Flow rate 1 year (l/s)	4.9	l/s
Flow rate 2 year (l/s)	5	l/s
Flow rate 10 years (l/s)	9.3	l/s
Flow rate 30 years (l/s)	13.2	l/s
Flow rate 100 years (l/s)	18.3	l/s
Flow rate 200 years (l/s)	21.4	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at uksuds.com (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
S1	Manhole	519398.632	133464.990	54.500	1.430	53.070	Circular	1.200
S2	Manhole	519386.394	133475.162	54.410	1.485	52.925	Circular	2.500
S3	Manhole	519334.849	133475.167	55.350	2.645	52.705	Circular	1.350
S4	Manhole	519281.594	133472.033	56.255	3.855	52.400	Circular	1.350
S5	Manhole	519262.188	133440.133	55.475	3.200	52.275	Circular	1.350
S6	Manhole	519232.525	133440.134	55.000	2.825	52.175	Circular	1.350
S7	Manhole	519232.532	133448.102	55.025	2.955	52.070	Circular	1.350
S8	Manhole	519176.724	133448.100	54.400	2.505	51.895	Circular	1.350
S7.1	Manhole	519232.525	133464.222	55.150	2.760	52.390	Circular	1.200
S8.5	Manhole	519214.046	133607.182	54.800	0.870	53.930	Circular	2.400
S8.4	Manhole	519209.193	133531.211	55.000	1.580	53.420	Circular	1.200
S8.3	Manhole	519187.971	133531.205	54.750	1.555	53.195	Circular	1.200
S8.2	Manhole	519177.343	133490.748	54.900	1.900	53.000	Circular	1.200
S8.1	Manhole	519176.724	133454.223	54.600	1.765	52.835	Circular	1.200
S12	Manhole	519090.018	133429.226	51.900	1.940	49.960	Circular	1.200
S13	Manhole	519069.005	133423.890	51.500	1.615	49.885	Circular	1.200
S8.6	Manhole	519183.842	133424.942	54.550	1.400	53.150	Circular	1.200
S7.000 J3	Simple Junction	519183.826	133448.123					
S7.000 J2	Simple Junction	519225.444	133448.086					
S8.7	Manhole	519225.641	133437.355	54.990	0.615	54.375	Circular	0.450
S8.8	Manhole	519225.641	133429.965	54.930	0.505	54.425	Circular	0.450
S7.000 J1	Simple Junction	519226.609	133448.127					

Name	Lock
S1	None
S2	None
S3	None
S4	None
S5	None
S6	None
S7	None
S8	None
S7.1	None
S8.5	None
S8.4	None
S8.3	None
S8.2	None
S8.1	None
S12	None
S13	None
S8.6	None
S7.000 J3	
S7.000 J2	
S8.7	None
S8.8	None
S7.000 J1	

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
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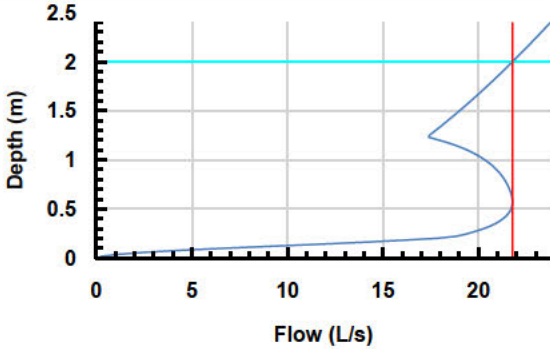
Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
S1	Inlet	S1 Catchment	(None)	No Restriction
S2	Inlet	S1.000	(None)	No Restriction
	Inlet (1)	S2 Catchment	(None)	No Restriction
S3	Inlet	S2.000 S3 Catchment - 1 S3.0 Catchment - 3	(None)	No Restriction
	Inlet (2)	S3 Catchment - 2 S3.0 - Catchment 4	(None)	No Restriction
S4	Inlet	S3.000 S4.0 Catchment - 1 S4.0 Catchment - 3 S4.0 - Catchment - 4	(None)	No Restriction
	Inlet (1)	S4.0 Catchment - 2 S8.5.1 Catchment - 2 Skate Park	(None)	No Restriction
	Inlet (2)	S8.5.1 Catchment - 1	(None)	No Restriction
S5	Inlet	S4.000 S5.0 Catchment - 1 S5.0 Catchment - 2 S5.201	(None)	No Restriction
S6	Inlet	S5.000	(None)	No Restriction
	Inlet (1)	S6.0 Catchment	(None)	No Restriction
S7	Inlet	S6.000 S7.0 Catchment - 1 S7.003a	(None)	No Restriction
	Inlet (1)	S7.003b	(None)	No Restriction
	Inlet (2)	S7.0 Catchment - 2 S7.001	(None)	No Restriction
S8	Inlet	S7.000 (J3)	(None)	No Restriction
	Inlet (2)	S8.001	(None)	No Restriction
S7.1	Inlet	S7.1 Catchment - 1	(None)	No Restriction
	Inlet (1)	S7.002a	(None)	No Restriction
	Inlet (2)	S7.1 Catchment - 2 S7.002b	(None)	No Restriction
	Inlet (3)	Pipe	(None)	No Restriction
S8.5	Inlet	S8.006a	(None)	No Restriction
S8.4	Inlet	S8.005	(None)	No Restriction
S8.3	Inlet	S8.004	(None)	No Restriction
	Inlet (1)	S8.301	(None)	No Restriction
S8.2	Inlet	S8.003	(None)	No Restriction
S8.1	Inlet	S8.002 S8.101	(None)	No Restriction
S12	Inlet (2)	S9.000	(None)	No Restriction
S13	Inlet	S10.000	(None)	No Restriction
S8.6	Inlet	S7.011	(None)	No Restriction
S7.000 J3	Inlet	S7.000 (J2)	(None)	No Restriction
	Inlet (1)	S7.007	(None)	No Restriction
S7.000 J2	Inlet	S7.000 (J1)	(None)	No Restriction
	Inlet (1)	S7.004	(None)	No Restriction
S8.7	Inlet	S7.005 S7.211	(None)	No Restriction
S8.8	Inlet	S7.006	(None)	No Restriction
S7.000 J1	Inlet	S7.000 S7.012	(None)	No Restriction

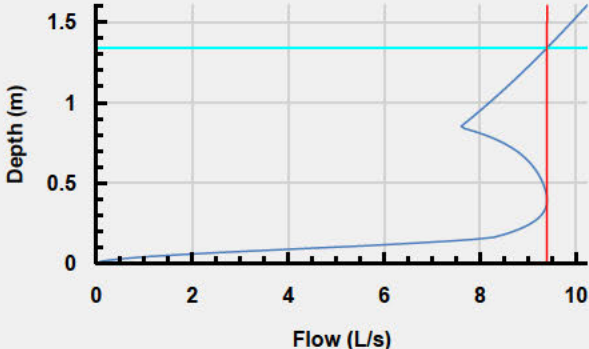
Outlets

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
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Junction	Outlet Name	Outgoing Connection	Outlet Type
S1	Outlet	S1.000	Free Discharge
S2	Outlet	S2.000	Free Discharge
S3	Outlet	S3.000	Free Discharge
S4	Outlet	S4.000	Free Discharge
S5	Outlet	S5.000	Free Discharge
S6	Outlet	S6.000	Free Discharge
S7	Outlet	S7.000	Free Discharge

S8	Outlet	S8.000	Hydro-Brake®
	Invert Level (m)	51.895	
	Design Depth (m)	2.000	
	Design Flow (L/s)	21.8	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0192-2180-2000-2180	
			

S7.1	Outlet	S7.001	Free Discharge
S8.5	Outlet	S8.005	Free Discharge
S8.4	Outlet	S8.004	Free Discharge
S8.3	Outlet	S8.003	Free Discharge
S8.2	Outlet	S8.002	Free Discharge
S8.1	Outlet	S8.001	Free Discharge

S12	Outlet	S10.000	Hydro-Brake®
	Invert Level (m)	49.960	
	Design Depth (m)	1.340	
	Design Flow (L/s)	9.4	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0137-9400-1340-9400	
			

S8.6	Outlet	S7.007	Free Discharge
S7.000 J3	Outlet	S7.000 (J3)	Free Discharge

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		Designed by: CS	Checked by:		Approved By:
Report Details: Type: Junctions Storm Phase: Phase		Revision: 1 Surcharged Outfall			

Junction	Outlet Name	Outgoing Connection	Outlet Type
S7.000 J2	Outlet	S7.000 (J2)	Free Discharge
S8.7	Outlet	S7.004	Free Discharge
S8.8	Outlet	S7.005	Free Discharge
S7.000 J1	Outlet	S7.000 (J1)	Free Discharge

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BASIN

Type : Pond

Dimensions

Exceedance Level (m)	51.625
Depth (m)	1.625
Base Level (m)	50.000
Freeboard (mm)	300
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	11.731
Total Volume (m³)	855.950

Depth (m)	Area (m²)	Volume (m³)
0.000	7.364	0.000
0.100	11.462	0.934
0.200	55.546	4.008
0.300	327.889	21.288
0.400	574.067	65.815
0.500	635.430	126.264
0.600	694.991	192.763
0.700	753.335	265.160
0.800	812.878	343.451
0.900	873.616	427.758
1.000	935.546	518.198
1.100	998.691	614.893
1.200	1063.036	717.963
1.300	1128.582	827.527
1.400	1195.928	943.736
1.500	1263.274	1066.681
1.600	1332.428	1196.451
1.625	1332.428	1229.761

Inlets

S(HW)9

Inlet Type	Point Inflow
Incoming Item(s)	S8.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet (1)

Outgoing Connection	S9.000
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	71.300
Friction Scheme	Manning's n
n	0.063

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025		
	Designed by: CS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Revision: 1 Surcharged Outfall		





MUGA South

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.480
Depth (m)	1.300
Base Level (m)	53.180
Paving Layer Depth (mm)	100
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	36.784
Long. Slope (1:X)	100.00
Width (m)	21.375
Total Volume (m³)	283.502

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	MUGA S
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S7.011
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025		
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3G PITCH

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.680
Depth (m)	0.460
Base Level (m)	54.220
Paving Layer Depth (mm)	100
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	36.995
Long. Slope (1:X)	100.00
Width (m)	43.007
Total Volume (m³)	172.184

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	3G PITCH
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S8.101
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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MUGA North

Type : Porous Paving

Dimensions

Exceedance Level (m)	55.185
Depth (m)	0.460
Base Level (m)	54.725
Paving Layer Depth (mm)	100
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	36.996
Long. Slope (1:X)	148.00
Width (m)	21.502
Total Volume (m³)	86.364

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	MUGA N
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S8.301
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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Artificial Pitch 1

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.810
Depth (m)	0.490
Base Level (m)	54.320
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	105.889
Long. Slope (1:X)	142.00
Width (m)	69.940
Total Volume (m³)	800.814

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	225
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Art. Pitch
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S8.006a
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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		Revision: 1 Surcharged Outfall			



PP East

Type : Porous Paving

Dimensions

Exceedance Level (m)	55.396
Depth (m)	0.430
Base Level (m)	54.966
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	33.487
Long. Slope (1:X)	35.80
Width (m)	4.780
Total Volume (m³)	12.966

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP WEST
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S5.201
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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PP North

Type : Porous Paving

Dimensions

Exceedance Level (m)	55.450
Depth (m)	0.430
Base Level (m)	55.020
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	26.417
Long. Slope (1:X)	41.20
Width (m)	4.800
Total Volume (m³)	10.271

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP NORTH
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S7.002a
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025		
	Designed by: CS	Checked by:	Approved By:
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PP Centre-North

Type : Porous Paving

Dimensions	
Exceedance Level (m)	55.317
Depth (m)	0.430
Base Level (m)	54.887
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	26.387
Long. Slope (1:X)	35.50
Width (m)	4.776
Total Volume (m³)	10.207

Inlets	
Inlet	
Inlet Type	Lateral Inflow
Incoming Item(s)	PP NC
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets	
Outlet	
Outgoing Connection	S7.002b
Outlet Type	Free Discharge

Advanced	
Conductivity (m/hr)	50.0

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PP Centre

Type : Porous Paving

Dimensions

Exceedance Level (m)	55.110
Depth (m)	0.435
Base Level (m)	54.675
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	21.600
Long. Slope (1:X)	44.60
Width (m)	4.800
Total Volume (m³)	8.554

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP C
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S7.003a
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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PP Centre-South

Type : Porous Paving

Dimensions

Exceedance Level (m)	55.182
Depth (m)	0.430
Base Level (m)	54.752
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	4.695
Long. Slope (1:X)	35.80
Width (m)	9.600
Total Volume (m³)	3.651

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP SC
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet (1)

Outgoing Connection	S7.003b
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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	Designed by: CS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Revision: 1 Surcharged Outfall		





PP South

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.871
Depth (m)	0.430
Base Level (m)	54.441
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	28.800
Long. Slope (1:X)	64.80
Width (m)	4.800
Total Volume (m³)	11.197

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP S
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S7.006
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

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	Designed by: CS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Revision: 1 Surcharged Outfall		





PP South-West

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.864
Depth (m)	0.430
Base Level (m)	54.434
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	9.600
Long. Slope (1:X)	48.00
Width (m)	4.800
Total Volume (m³)	3.732

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP SW
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	S7.211
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
---------------------	------

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025		
	Designed by: CS	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Revision: 1 Surcharged Outfall		





PP North-West

Type : Porous Paving

Dimensions

Exceedance Level (m)	54.875
Depth (m)	0.430
Base Level (m)	54.445
Paving Layer Depth (mm)	160
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	19.200
Long. Slope (1:X)	79.30
Width (m)	4.795
Total Volume (m³)	7.457

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	PP NW
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet (1)

Outgoing Connection	S7.012
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	50.0
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Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: CS	Checked by:	Approved By:	
	Revision: 1 Surcharged Outfall			



Cellular Storage

Type : Cellular Storage

Dimensions	
Exceedance Level (m)	55.200
Depth (m)	1.600
Base Level (m)	52.450
Number of Crates Long	30
Number of Crates Wide	6
Number of Crates High	4
Porosity (%)	95
Crate Length (m)	1
Crate Width (m)	0.5
Crate Height (m)	0.4
Total Volume (m³)	137.950
Outlets	
Outlet	
Outgoing Connection	Pipe
Outlet Type	Free Discharge

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Connections Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
S1.000	15.914	Pipe	227.336		0.6	225	54.500	53.070
S2.000	51.545	Pipe	234.297		0.6	300	54.410	52.925
S3.000	53.347	Pipe	231.944		0.6	300	55.350	52.705
S4.000	37.338	Pipe	298.704		0.6	375	56.255	52.400
S6.000	7.968	Pipe	265.598		0.6	375	55.000	52.175
S8.005	76.126	Pipe	149.266		0.6	225	54.800	53.930
S8.004	21.222	Pipe	141.480		0.6	225	55.000	53.420
S8.003	41.830	Pipe	214.514		0.6	300	54.750	53.195
S8.002	36.530	Pipe	221.394		0.6	300	54.900	53.000
S8.001	6.123	Pipe	9.567		0.6	150	54.600	52.835
S8.000	20.157	Pipe	11.892		0.6	225	54.400	51.895
S10.000	21.680	Pipe	289.064		0.6	300	51.900	49.960
S9.000	11.816	Pipe	295.397		0.6	300	51.625	50.000
S7.011	2.902	Pipe	96.744		0.6	150	54.480	53.180
S7.000 (J3)	7.103	Pipe	322.845		0.6	450	54.625	51.917
S7.007	23.181	Pipe	24.766		0.6	150	54.550	53.150
S8.101	2.684	Pipe	2.173		0.6	150	54.610	54.220
S8.301	5.760	Pipe	3.765		0.6	150	55.185	54.725
S8.006a	4.007	Pipe	10.275		0.6	225	54.810	54.320
S5.201	2.145	Pipe	0.853		0.6	150	56.331	54.966
S7.000 (J2)	41.618	Pipe	320.136		0.6	450	55.060	52.047
S7.000	5.923	Pipe	311.721		0.6	450	55.025	52.070
S7.000 (J1)	1.166	Pipe	291.470		0.6	450	55.010	52.051
S7.005	7.390	Pipe	147.794		0.6	150	54.930	54.425
S7.004	10.733	Pipe	5.238		0.6	150	54.990	54.375
S7.006	6.501	Pipe	406.328		0.6	150	55.315	54.441
S7.012	2.143	Pipe	1.013		0.6	150	55.117	54.445
S5.000	29.663	Pipe	296.630		0.6	375	55.475	52.275
S7.003b	11.095	Pipe	4.609		0.6	150	55.182	54.752
S7.001	16.120	Pipe	134.334		0.6	225	55.150	52.390
S7.003a	5.615	Pipe	2.410		0.6	150	55.110	54.675
S7.002a	10.667	Pipe	6.904		0.6	150	55.405	55.020
S7.002b	8.040	Pipe	5.694		0.6	150	55.317	54.887
S7.211	1.639	Pipe	27.787		0.6	150	55.064	54.434
Pipe	17.123	Pipe	285.386		0.6	225	55.200	52.450

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Connections Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
S1.000	54.410	53.000		Levels		(None)	(None)
S2.000	55.350	52.705		Levels		(None)	(None)
S3.000	56.255	52.475		Levels		(None)	(None)
S4.000	55.475	52.275		None		(None)	(None)
S6.000	55.025	52.145		Levels		(None)	(None)
S8.005	55.000	53.420		Levels		(None)	(None)
S8.004	54.750	53.270		Levels		(None)	(None)
S8.003	54.900	53.000		None		(None)	(None)
S8.002	54.600	52.835		Levels		(None)	(None)
S8.001	54.400	52.195		Levels		(None)	(None)
S8.000	51.625	50.200		Levels	23.8	(None)	(None)
S10.000	51.500	49.885		None	10.2	(None)	(None)
S9.000	51.900	49.960		None		(None)	(None)
S7.011	54.550	53.150		None		(None)	(None)
S7.000 (J3)	54.400	51.895		Levels		(None)	(None)
S7.007	52.266	52.214		None		(None)	(None)
S8.101	54.600	52.985		Levels		(None)	(None)
S8.301	54.750	53.195		Levels		(None)	(None)
S8.006a	54.800	53.930		Levels		(None)	(None)
S5.201	55.475	52.450		Levels		(None)	(None)
S7.000 (J2)	54.625	51.917		Levels		(None)	(None)
S7.000	55.010	52.051		Levels		(None)	(None)
S7.000 (J1)	55.060	52.047		Levels		(None)	(None)
S7.005	54.990	54.375		None		(None)	(None)
S7.004	52.401	52.326		Levels		(None)	(None)
S7.006	54.930	54.425		None		(None)	(None)
S7.012	52.405	52.329		Levels		(None)	(None)
S5.000	55.000	52.175		None		(None)	(None)
S7.003b	55.025	52.345		Levels		(None)	(None)
S7.001	55.025	52.270		Levels		(None)	(None)
S7.003a	55.025	52.345		Levels		(None)	(None)
S7.002a	55.150	53.475		Levels		(None)	(None)
S7.002b	55.150	53.475		Levels		(None)	(None)
S7.211	54.990	54.375		None		(None)	(None)
Pipe	55.150	52.390		Levels		(None)	(None)

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Inflow Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
3G PITCH	3G PITCH		Time of Concentration	0.159	100	0	100	0.159
Art. Pitch	Artificial Pitch 1		Time of Concentration	0.760	100	0	100	0.760
MUGA N	MUGA North		Time of Concentration	0.080	100	0	100	0.080
MUGA S	MUGA South		Time of Concentration	0.079	100	0	100	0.079
PP C	PP Centre		Time of Concentration	0.010	100	0	100	0.010
PP NC	PP Centre-North		Time of Concentration	0.013	100	0	100	0.013
PP NORTH	PP North		Time of Concentration	0.013	100	0	100	0.013
PP NW	PP North-West		Time of Concentration	0.009	100	0	100	0.009
PP S	PP South		Time of Concentration	0.014	100	0	100	0.014
PP SC	PP Centre-South		Time of Concentration	0.005	100	0	100	0.005
PP SW	PP South-West		Time of Concentration	0.006	100	0	100	0.006
PP WEST	PP East		Time of Concentration	0.016	100	0	100	0.016
S1 Catchment	S1		Time of Concentration	0.025	100	0	100	0.025
S2 Catchment	S2		Time of Concentration	0.025	100	0	100	0.025
S3 Catchment - 1	S3		Time of Concentration	0.027	100	0	100	0.027
S3 Catchment - 2	S3		Time of Concentration	0.062	100	0	100	0.062
S3.0 - Catchment 4	S3		Time of Concentration	0.018	100	0	100	0.018
S3.0 Catchment - 3	S3		Time of Concentration	0.008	100	0	100	0.008
S4.0 - Catchment - 4	S4		Time of Concentration	0.039	100	0	100	0.039
S4.0 Catchment - 1	S4		Time of Concentration	0.024	100	0	100	0.024
S4.0 Catchment - 2	S4		Time of Concentration	0.014	100	0	100	0.014
S4.0 Catchment - 3	S4		Time of Concentration	0.014	100	0	100	0.014
S5.0 Catchment - 1	S5		Time of Concentration	0.014	100	0	100	0.014
S5.0 Catchment - 2	S5		Time of Concentration	0.009	100	0	100	0.009
S6.0 Catchment	S6		Time of Concentration	0.034	100	0	100	0.034
S7.0 Catchment - 1	S7		Time of Concentration	0.017	100	0	100	0.017
S7.0 Catchment - 2	S7		Time of Concentration	0.018	100	0	100	0.018

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Inflow Summary Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

S7.1 Catchment - 1	S7.1		Time of Concentration	0.023	100	0	100	0.023
S7.1 Catchment - 2	S7.1		Time of Concentration	0.009	100	0	100	0.009
S8.5.1 Catchment - 1	S4		Time of Concentration	0.087	100	0	100	0.087
S8.5.1 Catchment - 2	S4		Time of Concentration	0.007	100	0	100	0.007
Skate Park	S4		Time of Concentration	0.012	100	0	100	0.012
TOTAL		0.0		1.650				1.650

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Network Design Criteria Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

Flow Options

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

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
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	☐

Manhole Options

Apply Offset	☐
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Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
		Designed by: CS	Checked by:		Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase		Revision: 1 Surcharged Outfall			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
S13	Free Discharge			

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Rainfall Analysis Criteria		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

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

Rainfall

FEH 2022		Type: FEH
Site Location	GB 519000 133350 TQ 19000 33350	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	20.000
30.0	0.000
2.0	0.000

Storm Durations

Duration (mins)	Run Time (mins)
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase	Designed by: CS	Checked by:	Approved By:	
	Revision: 1 Surcharged Outfall			



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Outflow

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

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
S1	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.500	53.070	54.419	1.349	7.2	1.525	0.000	7.6	14.048	Flood Risk
S2	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.410	52.925	54.414	1.489	17.0	10.890	3.600	23.2	25.321	Flood
S3	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.350	52.705	54.418	1.713	38.2	2.451	0.000	38.3	88.802	Surcharged
S4	FEH 2022: 100 years: +20 %: 120 mins: Summer	56.255	52.400	54.382	1.982	84.6	2.837	0.000	84.3	193.428	Surcharged
S5	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.475	52.275	54.312	2.037	92.0	2.915	0.000	91.5	203.984	Surcharged
S6	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.000	52.175	54.276	2.101	101.2	3.007	0.000	100.5	219.331	Surcharged
S7	FEH 2022: 100 years: +20 %: 360 mins: Summer	55.025	52.070	54.378	2.308	57.1	3.303	0.000	35.5	441.107	Surcharged
S8	FEH 2022: 100 years: +20 %: 240 mins: Summer	54.400	51.895	54.379	2.484	37.3	3.554	0.000	23.8	744.173	Flood Risk
S7.1	FEH 2022: 100 years: +20 %: 480 mins: Summer	55.150	52.390	54.349	1.959	46.9	2.216	0.000	14.7	304.206	Surcharged
S8.5	FEH 2022: 100 years: +20 %: 120 mins: Winter	54.800	53.930	54.592	0.662	30.1	2.997	0.000	30.2	266.937	Flood Risk
S8.4	FEH 2022: 100 years: +20 %: 120 mins: Winter	55.000	53.420	54.487	1.067	30.2	1.207	0.000	30.3	263.384	Surcharged
S8.3	FEH 2022: 100 years: +20 %: 600 mins: Winter	54.750	53.195	54.409	1.214	32.4	1.373	0.000	31.8	718.206	Surcharged
S8.2	FEH 2022: 100 years: +20 %: 600 mins: Winter	54.900	53.000	54.389	1.389	31.8	1.571	0.000	31.0	718.120	Surcharged
S8.1	FEH 2022: 100 years: +20 %: 180 mins: Winter	54.600	52.835	54.439	1.604	43.2	1.814	0.000	42.9	559.950	Flood Risk
S12	FEH 2022: 100 years: +20 %: 360 mins: Summer	51.900	49.960	50.951	0.991	9.4	1.121	0.000	9.4	357.581	Surcharged
S13	FEH 2022: 100 years: +20 %: 2160 mins: Summer	51.500	49.885	49.962	0.077	9.4	0.000	0.000	9.4	1795.567	OK
S8.6	FEH 2022: 100 years: +20 %: 360 mins: Summer	54.550	53.150	53.890	0.740	28.4	0.837	0.000	10.5	463.833	Surcharged
S7.000 J3	FEH 2022: 100 years: +20 %: 480 mins: Summer		51.917	54.342	2.425	34.2			20.2	771.427	Surcharged
S7.000 J2	FEH 2022: 100 years: +20 %: 360 mins: Summer		52.047	54.376	2.329	36.4			36.4	329.677	Surcharged
S8.7	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.990	54.375	54.390	0.015	1.9	0.002	0.000	1.9	5.467	OK
S8.8	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.930	54.425	54.453	0.028	1.0	0.004	0.000	1.0	2.774	OK
S7.000 J1	FEH 2022: 100 years: +20 %: 360 mins: Summer		52.051	54.377	2.326	35.8			35.7	323.478	Surcharged

Project:	Date:			
Mowbray Horsham	26/11/2025			
Catchment 5	Designed by:	Checked by:	Approved By:	
Sports Hub	CS			
Report Details:	Revision:			
Type: Junctions Summary	1			
Storm Phase: Phase	Surcharged Outfall			



FEH 2022: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

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
S1	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.500	53.070	53.863	0.793	5.8	0.897	0.000	3.4	9.302	Surcharged
S2	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.410	52.925	53.863	0.938	14.3	4.604	0.000	6.2	15.989	Surcharged
S3	FEH 2022: 30 years: +0 %: 120 mins: Summer	55.350	52.705	53.863	1.158	24.9	1.657	0.000	23.0	56.678	Surcharged
S4	FEH 2022: 30 years: +0 %: 120 mins: Summer	56.255	52.400	53.862	1.462	58.9	2.093	0.000	57.3	125.109	Surcharged
S5	FEH 2022: 30 years: +0 %: 120 mins: Summer	55.475	52.275	53.862	1.587	62.4	2.271	0.000	61.1	130.382	Surcharged
S6	FEH 2022: 30 years: +0 %: 120 mins: Summer	55.000	52.175	53.862	1.687	67.5	2.413	0.000	66.4	139.472	Surcharged
S7	FEH 2022: 30 years: +0 %: 120 mins: Winter	55.025	52.070	53.818	1.748	48.5	2.501	0.000	24.9	185.632	Surcharged
S8	FEH 2022: 30 years: +0 %: 120 mins: Winter	54.400	51.895	53.818	1.923	43.9	2.752	0.000	21.8	336.127	Surcharged
S7.1	FEH 2022: 30 years: +0 %: 360 mins: Summer	55.150	52.390	53.895	1.505	41.1	1.702	0.000	14.1	261.049	Surcharged
S8.5	FEH 2022: 30 years: +0 %: 480 mins: Summer	54.800	53.930	54.374	0.444	27.5	2.008	0.000	27.5	395.178	Surcharged
S8.4	FEH 2022: 30 years: +0 %: 480 mins: Summer	55.000	53.420	54.206	0.786	27.5	0.889	0.000	27.2	395.018	Surcharged
S8.3	FEH 2022: 30 years: +0 %: 240 mins: Summer	54.750	53.195	54.174	0.979	32.4	1.107	0.000	32.0	340.593	Surcharged
S8.2	FEH 2022: 30 years: +0 %: 120 mins: Winter	54.900	53.000	54.108	1.108	31.7	1.253	0.000	31.7	224.348	Surcharged
S8.1	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.600	52.835	54.107	1.272	44.5	1.438	0.000	44.5	279.767	Surcharged
S12	FEH 2022: 30 years: +0 %: 4320 mins: Summer	51.900	49.960	50.825	0.865	9.4	0.979	0.000	9.4	1566.742	Surcharged
S13	FEH 2022: 30 years: +0 %: 4320 mins: Summer	51.500	49.885	49.962	0.077	9.4	0.000	0.000	9.4	1566.737	OK
S8.6	FEH 2022: 30 years: +0 %: 360 mins: Summer	54.550	53.150	53.694	0.544	18.0	0.615	0.000	7.7	225.424	Surcharged
S7.000 J3	FEH 2022: 30 years: +0 %: 360 mins: Summer		51.917	53.894	1.977	19.9			19.2	462.271	Surcharged
S7.000 J2	FEH 2022: 30 years: +0 %: 120 mins: Winter		52.047	53.818	1.771	24.7			20.3	93.486	Surcharged
S8.7	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.990	54.375	54.387	0.012	1.3	0.002	0.000	1.3	3.499	OK
S8.8	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.930	54.425	54.448	0.023	0.6	0.004	0.000	0.6	1.769	OK
S7.000 J1	FEH 2022: 30 years: +0 %: 120 mins: Winter		52.051	53.818	1.767	25.1			24.4	95.116	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase	Designed by: CS	Checked by:	Approved By:	
	Revision: 1 Surcharged Outfall			



FEH 2022: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

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
S1	FEH 2022: 2 years: +0 %: 120 mins: Summer	54.500	53.070	53.111	0.041	2.4	0.047	0.000	2.4	5.015	OK
S2	FEH 2022: 2 years: +0 %: 120 mins: Summer	54.410	52.925	52.976	0.051	4.7	0.250	0.000	4.7	9.955	OK
S3	FEH 2022: 2 years: +0 %: 120 mins: Summer	55.350	52.705	52.819	0.114	15.6	0.163	0.000	15.8	32.424	OK
S4	FEH 2022: 2 years: +0 %: 120 mins: Summer	56.255	52.400	52.811	0.411	33.6	0.588	0.000	31.6	70.251	Surcharged
S5	FEH 2022: 2 years: +0 %: 120 mins: Summer	55.475	52.275	52.811	0.536	34.0	0.767	0.000	28.6	75.760	Surcharged
S6	FEH 2022: 2 years: +0 %: 120 mins: Summer	55.000	52.175	52.810	0.635	30.8	0.909	0.000	31.0	82.278	Surcharged
S7	FEH 2022: 2 years: +0 %: 120 mins: Summer	55.025	52.070	52.810	0.740	33.6	1.060	0.000	26.7	125.584	Surcharged
S8	FEH 2022: 2 years: +0 %: 120 mins: Summer	54.400	51.895	52.810	0.915	22.8	1.309	0.000	21.8	223.589	Surcharged
S7.1	FEH 2022: 2 years: +0 %: 180 mins: Summer	55.150	52.390	52.867	0.477	31.2	0.540	0.000	9.1	76.983	Surcharged
S8.5	FEH 2022: 2 years: +0 %: 600 mins: Summer	54.800	53.930	54.010	0.080	11.3	0.362	0.000	11.3	229.658	OK
S8.4	FEH 2022: 2 years: +0 %: 600 mins: Summer	55.000	53.420	53.501	0.081	11.3	0.092	0.000	11.3	229.558	OK
S8.3	FEH 2022: 2 years: +0 %: 240 mins: Summer	54.750	53.195	53.283	0.088	13.7	0.100	0.000	13.7	159.955	OK
S8.2	FEH 2022: 2 years: +0 %: 240 mins: Summer	54.900	53.000	53.091	0.091	13.7	0.103	0.000	13.7	159.710	OK
S8.1	FEH 2022: 2 years: +0 %: 240 mins: Summer	54.600	52.835	52.930	0.095	18.9	0.107	0.000	18.9	197.244	OK
S12	FEH 2022: 2 years: +0 %: 2880 mins: Summer	51.900	49.960	50.483	0.523	9.4	0.591	0.000	9.4	842.763	Surcharged
S13	FEH 2022: 2 years: +0 %: 360 mins: Summer	51.500	49.885	49.962	0.077	9.4	0.000	0.000	9.4	346.487	OK
S8.6	FEH 2022: 2 years: +0 %: 180 mins: Summer	54.550	53.150	53.181	0.031	3.5	0.035	0.000	3.5	16.905	OK
S7.000 J3	FEH 2022: 2 years: +0 %: 120 mins: Summer		51.917	52.810	0.893	22.8			17.7	113.178	Surcharged
S7.000 J2	FEH 2022: 2 years: +0 %: 120 mins: Summer		52.047	52.810	0.763	26.5			22.2	100.066	Surcharged
S8.7	FEH 2022: 2 years: +0 %: 120 mins: Summer	54.990	54.375	54.384	0.009	0.6	0.001	0.000	0.6	1.637	OK
S8.8	FEH 2022: 2 years: +0 %: 120 mins: Summer	54.930	54.425	54.441	0.016	0.3	0.003	0.000	0.3	0.822	OK
S7.000 J1	FEH 2022: 2 years: +0 %: 120 mins: Summer		52.051	52.810	0.759	26.9			26.2	98.482	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank
By: Max. Resident Volume

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
BASIN	FEH 2022: 100 years: +20 %: 2880 mins: Winter	51.325	51.325	1.325	1.325	21.8	856.058	0.000	0.000	9.4	2063.774	-0.013	Flood Risk
MUGA South	FEH 2022: 100 years: +20 %: 720 mins: Summer	53.924	53.927	0.376	0.747	30.8	132.053	0.000	0.000	9.9	149.726	53.421	OK
3G PITCH	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.664	54.461	0.074	0.241	49.8	63.802	0.000	0.000	15.0	90.663	62.945	OK
MUGA North	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.035	54.764	0.060	0.039	22.9	19.239	0.000	0.000	14.7	46.096	77.723	OK
Artificial Pitch 1	FEH 2022: 100 years: +20 %: 240 mins: Summer	55.176	54.664	0.110	0.344	140.8	398.294	0.000	0.000	30.5	480.375	50.264	OK
PP East	FEH 2022: 100 years: +20 %: 960 mins: Summer	56.060	54.970	0.159	0.004	1.1	8.871	0.033	0.000	0.3	14.153	31.581	OK
PP North	FEH 2022: 100 years: +20 %: 960 mins: Summer	55.830	55.027	0.168	0.007	0.9	6.391	0.000	0.000	0.3	11.472	37.779	OK
PP Centre-North	FEH 2022: 100 years: +20 %: 720 mins: Summer	55.793	54.894	0.163	0.007	1.1	6.190	0.000	0.000	0.4	10.223	39.351	OK
PP Centre	FEH 2022: 100 years: +20 %: 720 mins: Summer	55.330	54.680	0.170	0.005	0.9	4.978	0.000	0.000	0.3	8.348	41.805	OK
PP Centre-South	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.020	54.761	0.137	0.009	1.3	0.967	0.000	0.000	0.8	2.441	73.510	OK
PP South	FEH 2022: 100 years: +20 %: 1440 mins: Summer	55.094	54.460	0.209	0.019	0.7	7.894	0.005	0.000	0.2	13.643	29.501	OK
PP South-West	FEH 2022: 100 years: +20 %: 360 mins: Summer	54.863	54.448	0.229	0.014	0.9	1.644	0.000	0.000	0.5	4.388	55.941	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025									
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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase				Revision: 1 Surcharged Outfall									

PP North-West	FEH 2022: 100 years: +20 %: 1440 mins: Summer	54.899	54.448	0.212	0.003	0.5	4.179	0.000	0.000	0.2	9.548	43.956	OK
Cellular Storage	FEH 2022: 100 years: +20 %: 240 mins: Summer	54.386	54.386	1.936	1.936	67.8	137.15 1	0.000	0.000	8.1	36.134	0.579	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				



FEH 2022: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

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
BASIN	FEH 2022: 30 years: +0 %: 1440 mins: Summer	50.963	50.963	0.963	0.963	21.8	483.715	0.000	0.000	9.4	1133.925	43.488	OK
MUGA South	FEH 2022: 30 years: +0 %: 360 mins: Summer	53.656	53.661	0.108	0.481	19.7	68.991	0.000	0.000	7.7	78.621	75.665	OK
3G PITCH	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.646	54.251	0.056	0.031	30.4	33.478	0.000	0.000	13.3	57.853	80.557	OK
MUGA North	FEH 2022: 30 years: +0 %: 120 mins: Summer	55.022	54.755	0.047	0.030	15.2	14.326	0.000	0.000	8.8	29.966	83.412	OK
Artificial Pitch 1	FEH 2022: 30 years: +0 %: 240 mins: Summer	55.148	54.400	0.082	0.080	94.3	229.350	0.000	0.000	26.1	304.434	71.360	OK
PP East	FEH 2022: 30 years: +0 %: 960 mins: Summer	56.002	54.969	0.101	0.003	0.7	6.002	0.000	0.000	0.2	9.378	53.711	OK
PP North	FEH 2022: 30 years: +0 %: 720 mins: Summer	55.774	55.026	0.113	0.006	0.7	4.336	0.000	0.000	0.2	6.483	57.788	OK
PP Centre-North	FEH 2022: 30 years: +0 %: 720 mins: Summer	55.736	54.893	0.106	0.006	0.7	4.210	0.000	0.000	0.2	6.813	58.753	OK
PP Centre	FEH 2022: 30 years: +0 %: 600 mins: Summer	55.271	54.679	0.112	0.004	0.7	3.402	0.000	0.000	0.2	4.984	60.228	OK
PP Centre-South	FEH 2022: 30 years: +0 %: 120 mins: Summer	54.977	54.760	0.094	0.008	0.9	0.666	0.000	0.000	0.5	1.583	81.747	OK
PP South	FEH 2022: 30 years: +0 %: 1440 mins: Summer	55.016	54.456	0.131	0.015	0.5	5.322	0.000	0.000	0.2	8.828	52.471	OK
PP South-West	FEH 2022: 30 years: +0 %: 360 mins: Summer	54.792	54.445	0.158	0.011	0.6	1.142	0.000	0.000	0.3	2.871	69.404	OK
PP North-West	FEH 2022: 30 years: +0 %: 960 mins: Summer	54.825	54.448	0.138	0.003	0.4	2.852	0.000	0.000	0.2	5.099	61.752	OK
Cellular Storage	FEH 2022: 30 years: +0 %: 360 mins: Summer	53.895	53.895	1.445	1.445	40.5	123.533	0.000	0.000	13.7	122.544	10.451	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				



FEH 2022: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

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
BASIN	FEH 2022: 2 years: +0 %: 600 mins: Summer	50.609	50.609	0.609	0.609	21.8	198.850	0.000	0.000	9.4	514.304	76.769	OK
MUGA South	FEH 2022: 2 years: +0 %: 120 mins: Summer	53.576	53.226	0.028	0.046	7.4	9.392	0.000	0.000	3.4	13.785	96.687	OK
3G PITCH	FEH 2022: 2 years: +0 %: 180 mins: Summer	54.624	54.242	0.034	0.022	12.4	20.107	0.000	0.000	5.0	32.832	88.322	OK
MUGA North	FEH 2022: 2 years: +0 %: 180 mins: Summer	55.004	54.744	0.029	0.019	6.2	8.731	0.000	0.000	3.3	17.075	89.890	OK
Artificial Pitch 1	FEH 2022: 2 years: +0 %: 480 mins: Summer	55.115	54.360	0.050	0.040	32.6	139.476	0.000	0.000	11.2	209.604	82.583	OK
PP East	FEH 2022: 2 years: +0 %: 1440 mins: Summer	55.951	54.969	0.050	0.003	0.3	3.556	0.000	0.000	0.1	6.652	72.574	OK
PP North	FEH 2022: 2 years: +0 %: 960 mins: Summer	55.721	55.025	0.060	0.005	0.3	2.568	0.000	0.000	0.1	4.409	74.999	OK
PP Centre-North	FEH 2022: 2 years: +0 %: 960 mins: Summer	55.686	54.891	0.056	0.004	0.3	2.472	0.000	0.000	0.1	4.511	75.782	OK
PP Centre	FEH 2022: 2 years: +0 %: 720 mins: Summer	55.220	54.679	0.061	0.004	0.3	2.008	0.000	0.000	0.1	3.183	76.522	OK
PP Centre-South	FEH 2022: 2 years: +0 %: 360 mins: Summer	54.935	54.756	0.052	0.004	0.2	0.379	0.000	0.000	0.2	1.300	89.618	OK
PP South	FEH 2022: 2 years: +0 %: 2160 mins: Summer	54.955	54.452	0.070	0.011	0.2	3.253	0.000	0.000	0.1	6.437	70.947	OK
PP South-West	FEH 2022: 2 years: +0 %: 720 mins: Summer	54.726	54.441	0.092	0.007	0.2	0.675	0.000	0.000	0.1	2.105	81.924	OK
PP North-West	FEH 2022: 2 years: +0 %: 1440 mins: Summer	54.764	54.448	0.077	0.003	0.2	1.747	0.000	0.000	0.1	3.632	76.571	OK
Cellular Storage	FEH 2022: 2 years: +0 %: 240 mins: Summer	52.889	52.889	0.439	0.439	27.6	37.500	0.000	0.000	8.7	37.012	72.816	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	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
S1.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S1	S2	54.500	54.419	0.225	13.942	0.5	0.22	7.6	Flood Risk
S2.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S2	S3	54.410	54.414	0.300	22.307	0.3	0.32	23.2	Flood
S3.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S3	S4	55.350	54.418	0.300	85.781	0.8	0.53	38.3	Surcharged
S4.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S4	S5	56.255	54.382	0.375	193.286	0.8	0.73	84.3	Surcharged
S6.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S6	S7	55.000	54.276	0.375	219.307	0.9	0.82	100.5	Surcharged
S8.005	FEH 2022: 100 years: +20 %: 120 mins: Winter	Pipe	S8.5	S8.4	54.800	54.592	0.225	266.937	1.0	0.71	30.2	Flood Risk
S8.004	FEH 2022: 100 years: +20 %: 120 mins: Winter	Pipe	S8.4	S8.3	55.000	54.487	0.225	263.384	1.0	0.69	30.3	Surcharged
S8.003	FEH 2022: 100 years: +20 %: 600 mins: Winter	Pipe	S8.3	S8.2	54.750	54.409	0.300	718.206	0.9	0.42	31.8	Surcharged
S8.002	FEH 2022: 100 years: +20 %: 600 mins: Winter	Pipe	S8.2	S8.1	54.900	54.389	0.300	718.120	1.1	0.42	31.0	Surcharged
S8.001	FEH 2022: 100 years: +20 %: 180 mins: Winter	Pipe	S8.1	S8	54.600	54.439	0.150	559.913	2.4	0.74	42.9	Flood Risk
S8.000	FEH 2022: 100 years: +20 %: 240 mins: Summer	Pipe	S8	BASIN	54.400	54.379	0.225	580.104	2.0	0.16	23.8	Flood Risk
S10.000	FEH 2022: 100 years: +20 %: 2160 mins: Summer	Pipe	S12	S13	51.900	51.272	0.078	1795.567	0.6	0.14	9.4	Surcharged
S9.000	FEH 2022: 100 years: +20 %: 240 mins: Summer	Pipe	BASIN	S12	51.625	50.785	0.300	248.622	0.4	0.15	9.4	Surcharged
S7.011	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	MUGA South	S8.6	54.480	53.687	0.150	11.400	1.0	0.58	10.4	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025								
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S7.000 (J3)	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	S7.000 J3	S8	54.625	54.342	0.450	231.340	0.2	0.11	20.2	Surch arged
S7.007	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S8.6	S7.000 J3	54.550	53.890	0.150	11.162	1.0	0.29	10.5	Surch arged
S8.101	FEH 2022: 100 years: +20 %: 180 mins: Winter	Pipe	3G PITCH	S8.1	54.610	54.336	0.150	101.831	3.6	0.13	15.2	OK
S8.301	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	MUGA North	S8.3	55.185	54.806	0.150	46.096	0.8	0.16	14.7	OK
S8.006a	FEH 2022: 100 years: +20 %: 360 mins: Winter	Pipe	Artificial Pitch 1	S8.5	54.810	54.486	0.225	553.454	1.6	0.22	35.5	OK
S5.201	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP East	S5	56.331	55.120	0.150	3.042	1.7	0	1.0	Surch arged
S7.000 (J2)	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7.000 J2	S7.000 J3	55.060	54.376	0.450	320.927	0.4	0.2	36.4	Surch arged
S7.000	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7	S7.000 J1	55.025	54.378	0.450	311.947	0.5	0.19	35.5	Surch arged
S7.000 (J1)	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7.000 J1	S7.000 J2	55.010	54.377	0.450	315.136	0.6	0.19	35.7	Surch arged
S7.005	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S8.8	S8.7	54.930	54.453	0.022	2.774	0.6	0.07	1.0	OK
S7.004	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S8.7	S7.000 J2	54.990	54.390	0.150	5.467	1.0	0.02	1.9	OK
S7.006	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP South	S8.8	55.315	54.592	0.032	2.783	0.4	0.11	1.0	Surch arged
S7.012	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP North- West	S7.000 J1	55.117	54.572	0.150	2.500	0.4	0.01	0.9	OK
S5.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S5	S6	55.475	54.312	0.375	203.942	0.8	0.79	91.5	Surch arged
S7.003b	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre- South	S7	55.182	54.824	0.150	2.441	0.8	0.01	0.8	OK
S7.001	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	S7.1	S7	55.150	54.349	0.225	41.522	0.6	0.33	14.7	Surch arged
S7.003a	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre	S7	55.110	54.816	0.150	2.555	1.0	0.01	0.8	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025											
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by: CS								Checked by:		Approved By:	
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S7.002a	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP North	S7.1	55.405	55.164	0.150	2.883	1.3	0.01	0.9	OK
S7.002b	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre- North	S7.1	55.317	55.030	0.150	2.976	1.4	0.01	0.9	OK
S7.211	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP South- West	S8.7	55.064	54.548	0.017	2.699	0.9	0.03	0.9	OK
Pipe	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	Cellular Storage	S7.1	55.200	54.349	0.225	0.000	0.7	0.47	14.3	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
	Designed by:	Checked by:	Approved By:	
	CS			
Report Details: Type: Connections Summary Storm Phase: Phase	Revision: 1 Surcharged Outfall			



FEH 2022: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	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
S1.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S1	S2	54.500	53.863	0.225	9.247	0.5	0.1	3.4	Surcharged
S2.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S2	S3	54.410	53.863	0.300	14.445	0.4	0.09	6.2	Surcharged
S3.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S3	S4	55.350	53.863	0.300	55.077	0.8	0.32	23.0	Surcharged
S4.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S4	S5	56.255	53.862	0.375	124.997	0.8	0.5	57.3	Surcharged
S6.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S6	S7	55.000	53.862	0.375	139.472	0.8	0.54	66.4	Surcharged
S8.005	FEH 2022: 30 years: +0 %: 480 mins: Summer	Pipe	S8.5	S8.4	54.800	54.374	0.225	395.178	1.0	0.65	27.5	Surcharged
S8.004	FEH 2022: 30 years: +0 %: 480 mins: Summer	Pipe	S8.4	S8.3	55.000	54.206	0.225	395.018	1.0	0.62	27.2	Surcharged
S8.003	FEH 2022: 30 years: +0 %: 240 mins: Summer	Pipe	S8.3	S8.2	54.750	54.174	0.300	340.593	0.8	0.42	32.0	Surcharged
S8.002	FEH 2022: 30 years: +0 %: 120 mins: Winter	Pipe	S8.2	S8.1	54.900	54.108	0.300	224.348	0.9	0.43	31.7	Surcharged
S8.001	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S8.1	S8	54.600	54.107	0.150	279.767	2.5	0.77	44.5	Surcharged
S8.000	FEH 2022: 30 years: +0 %: 2160 mins: Summer	Pipe	S8	BASIN	54.400	53.422	0.225	1295.259	1.7	0.14	21.8	Surcharged
S10.000	FEH 2022: 30 years: +0 %: 4320 mins: Summer	Pipe	S12	S13	51.900	50.825	0.078	1566.737	0.6	0.14	9.4	Surcharged
S9.000	FEH 2022: 30 years: +0 %: 1440 mins: Winter	Pipe	BASIN	S12	51.625	50.960	0.300	1132.924	0.2	0.15	9.4	Surcharged
S7.011	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	MUGA South	S8.6	54.480	53.472	0.150	10.393	1.0	0.42	7.7	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025								
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:						
				CS								
				Revision: 1			Surcharged Outfall					

S7.000 (J3)	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	S7.000 J3	S8	54.625	53.894	0.450	210.660	0.2	0.11	19.2	Surcharged
S7.007	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	S8.6	S7.000 J3	54.550	53.694	0.150	10.263	0.9	0.21	7.7	Surcharged
S8.101	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	3G PITCH	S8.1	54.610	54.290	0.150	57.853	3.2	0.11	13.3	OK
S8.301	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	MUGA North	S8.3	55.185	54.785	0.150	29.966	0.8	0.1	8.8	OK
S8.006a	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	Artificial Pitch 1	S8.5	54.810	54.421	0.225	358.947	1.5	0.2	32.2	OK
S5.201	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP East	S5	56.331	55.069	0.150	1.936	1.9	0	0.6	OK
S7.000 (J2)	FEH 2022: 30 years: +0 %: 120 mins: Winter	Pipe	S7.000 J2	S7.000 J3	55.060	53.818	0.450	56.779	0.5	0.11	20.3	Surcharged
S7.000	FEH 2022: 30 years: +0 %: 120 mins: Winter	Pipe	S7	S7.000 J1	55.025	53.818	0.450	57.992	0.6	0.14	24.9	Surcharged
S7.000 (J1)	FEH 2022: 30 years: +0 %: 120 mins: Winter	Pipe	S7.000 J1	S7.000 J2	55.010	53.818	0.450	57.788	0.6	0.13	24.4	Surcharged
S7.005	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S8.8	S8.7	54.930	54.448	0.018	1.769	0.5	0.04	0.6	OK
S7.004	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S8.7	S7.000 J2	54.990	54.387	0.150	3.499	1.0	0.02	1.3	OK
S7.006	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP South	S8.8	55.315	54.543	0.026	1.776	0.3	0.07	0.6	OK
S7.012	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP North-West	S7.000 J1	55.117	54.531	0.150	1.592	1.9	0	0.6	OK
S5.000	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	S5	S6	55.475	53.862	0.375	130.382	0.7	0.53	61.1	Surcharged
S7.003b	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP Centre-South	S7	55.182	54.801	0.150	1.583	0.8	0.01	0.5	OK
S7.001	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	S7.1	S7	55.150	53.895	0.225	24.280	0.6	0.31	14.1	Surcharged
S7.003a	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP Centre	S7	55.110	54.770	0.150	1.614	1.1	0	0.5	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025									
				Designed by: CS		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Revision: 1 Surcharged Outfall									

S7.002a	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP North	S7.1	55.405	55.116	0.150	1.840	1.2	0.01	0.6	OK
S7.002b	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP Centre- North	S7.1	55.317	54.983	0.150	1.905	1.3	0.01	0.6	OK
S7.211	FEH 2022: 30 years: +0 %: 120 mins: Summer	Pipe	PP South- West	S8.7	55.064	54.512	0.014	1.735	0.8	0.02	0.6	OK
Pipe	FEH 2022: 30 years: +0 %: 360 mins: Summer	Pipe	Cellular Storage	S7.1	55.200	53.895	0.225	0.000	0.6	0.45	13.7	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
	Designed by:	Checked by:	Approved By:	
	CS			
Report Details: Type: Connections Summary Storm Phase: Phase	Revision: 1 Surcharged Outfall			



FEH 2022: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	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
S1.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S1	S2	54.500	53.111	0.040	5.015	0.5	0.07	2.4	OK
S2.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S2	S3	54.410	52.976	0.079	9.955	0.4	0.07	4.7	OK
S3.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S3	S4	55.350	52.819	0.223	32.424	0.8	0.22	15.8	OK
S4.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S4	S5	56.255	52.811	0.375	70.251	0.8	0.27	31.6	Surcharged
S6.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S6	S7	55.000	52.810	0.375	82.278	0.8	0.25	31.0	Surcharged
S8.005	FEH 2022: 2 years: +0 %: 600 mins: Summer	Pipe	S8.5	S8.4	54.800	54.010	0.081	229.658	0.9	0.27	11.3	OK
S8.004	FEH 2022: 2 years: +0 %: 600 mins: Summer	Pipe	S8.4	S8.3	55.000	53.501	0.080	229.558	0.9	0.26	11.3	OK
S8.003	FEH 2022: 2 years: +0 %: 240 mins: Summer	Pipe	S8.3	S8.2	54.750	53.283	0.089	159.955	0.8	0.18	13.7	OK
S8.002	FEH 2022: 2 years: +0 %: 240 mins: Summer	Pipe	S8.2	S8.1	54.900	53.091	0.087	159.710	1.0	0.18	13.7	OK
S8.001	FEH 2022: 2 years: +0 %: 240 mins: Summer	Pipe	S8.1	S8	54.600	52.930	0.150	197.244	2.1	0.33	18.9	OK
S8.000	FEH 2022: 2 years: +0 %: 480 mins: Winter	Pipe	S8	BASIN	54.400	52.580	0.210	459.773	1.7	0.14	21.8	Surcharged
S10.000	FEH 2022: 2 years: +0 %: 360 mins: Summer	Pipe	S12	S13	51.900	50.590	0.078	346.487	0.6	0.14	9.4	Surcharged
S9.000	FEH 2022: 2 years: +0 %: 960 mins: Summer	Pipe	BASIN	S12	51.625	50.598	0.300	600.212	0.2	0.15	9.4	Surcharged
S7.011	FEH 2022: 2 years: +0 %: 180 mins: Summer	Pipe	MUGA South	S8.6	54.480	53.220	0.039	16.929	1.0	0.19	3.5	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025								
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:						
				CS								
				Revision: 1 Surcharged Outfall								

S7.000 (J3)	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S7.000 J3	S8	54.625	52.810	0.450	113.178	0.2	0.1	17.7	Surcharged
S7.007	FEH 2022: 2 years: +0 %: 180 mins: Summer	Pipe	S8.6	S7.000 J3	54.550	53.181	0.150	16.905	0.8	0.1	3.5	OK
S8.101	FEH 2022: 2 years: +0 %: 240 mins: Summer	Pipe	3G PITCH	S8.1	54.610	54.262	0.022	37.610	3.3	0.04	5.2	OK
S8.301	FEH 2022: 2 years: +0 %: 180 mins: Summer	Pipe	MUGA North	S8.3	55.185	54.762	0.054	17.075	0.6	0.04	3.3	OK
S8.006a	FEH 2022: 2 years: +0 %: 600 mins: Summer	Pipe	Artificial Pitch 1	S8.5	54.810	54.382	0.060	229.789	1.3	0.07	11.3	OK
S5.201	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP East	S5	56.331	55.018	0.150	0.909	1.9	0	0.3	OK
S7.000 (J2)	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S7.000 J2	S7.000 J3	55.060	52.810	0.450	100.044	0.4	0.12	22.2	Surcharged
S7.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S7	S7.000 J1	55.025	52.810	0.450	97.656	0.6	0.15	26.7	Surcharged
S7.000 (J1)	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S7.000 J1	S7.000 J2	55.010	52.810	0.450	98.381	0.6	0.14	26.2	Surcharged
S7.005	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S8.8	S8.7	54.930	54.441	0.012	0.822	0.4	0.02	0.3	OK
S7.004	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S8.7	S7.000 J2	54.990	54.384	0.150	1.637	1.0	0.01	0.6	OK
S7.006	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP South	S8.8	55.315	54.492	0.018	0.826	0.2	0.03	0.3	OK
S7.012	FEH 2022: 2 years: +0 %: 120 mins: Winter	Pipe	PP North-West	S7.000 J1	55.117	54.488	0.150	0.746	1.9	0	0.3	OK
S5.000	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	S5	S6	55.475	52.811	0.375	75.760	0.7	0.25	28.6	Surcharged
S7.003b	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP Centre-South	S7	55.182	54.778	0.150	0.764	0.9	0	0.3	OK
S7.001	FEH 2022: 2 years: +0 %: 180 mins: Summer	Pipe	S7.1	S7	55.150	52.867	0.225	9.059	0.6	0.2	9.1	Surcharged
S7.003a	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP Centre	S7	55.110	54.723	0.150	0.748	1.1	0	0.3	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025									
				Designed by: CS		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Revision: 1 Surcharged Outfall									

S7.002a	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP North	S7.1	55.405	55.068	0.007	0.863	1.0	0	0.3	OK
S7.002b	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP Centre-North	S7.1	55.317	54.935	0.007	0.894	1.0	0	0.3	OK
S7.211	FEH 2022: 2 years: +0 %: 120 mins: Summer	Pipe	PP South-West	S8.7	55.064	54.474	0.010	0.818	0.6	0.01	0.3	OK
Pipe	FEH 2022: 2 years: +0 %: 180 mins: Summer	Pipe	Cellular Storage	S7.1	55.200	52.867	0.225	0.000	0.5	0.29	8.8	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
		Designed by: CS	Checked by:		Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase		Revision: 1 Surcharged Outfall			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
S13	Free Discharge			

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Rainfall Analysis Criteria		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

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

Rainfall		
FEH 2022 (40)		Type: FEH
Site Location	GB 519000 133350 TQ 19000 33350	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640

Project:	Date:			
Mowbray Horsham	26/11/2025			
Catchment 5	Designed by:	Checked by:	Approved By:	
Sports Hub	CS			
Report Details:	Revision:			
Type: Junctions Summary	1			
Storm Phase: Phase	Surcharged Outfall			



FEH 2022 (40): 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Outflow

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

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
S1	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.500	53.070	54.431	1.361	8.4	1.539	0.000	8.4	16.499	Flood Risk
S2	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.410	52.925	54.430	1.505	41.7	27.305	20.015	20.5	39.599	Flood
S3	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	55.350	52.705	54.429	1.724	32.5	2.467	0.000	31.7	136.176	Surcharged
S4	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	56.255	52.400	54.443	2.043	92.5	2.923	0.000	87.5	227.944	Surcharged
S5	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	55.475	52.275	54.423	2.148	96.4	3.074	0.000	91.9	241.306	Surcharged
S6	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	55.000	52.175	54.415	2.240	103.2	3.205	0.000	99.2	259.896	Surcharged
S7	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	55.025	52.070	54.411	2.341	112.7	3.350	0.000	46.2	301.521	Surcharged
S8	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.400	51.895	54.405	2.510	39.5	8.100	4.515	23.8	415.114	Flood
S7.1	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	55.150	52.390	54.400	2.010	40.9	2.273	0.000	15.0	316.671	Surcharged
S8.5	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	54.800	53.930	54.672	0.742	30.1	3.358	0.000	30.2	535.164	Flood Risk
S8.4	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	55.000	53.420	54.598	1.178	30.2	1.333	0.000	30.2	531.642	Surcharged
S8.3	FEH 2022 (40): 100 years: +40 %: 720 mins: Winter	54.750	53.195	54.490	1.295	31.5	1.465	0.000	31.2	887.295	Flood Risk
S8.2	FEH 2022 (40): 100 years: +40 %: 720 mins: Winter	54.900	53.000	54.470	1.470	31.2	1.662	0.000	30.9	887.227	Surcharged
S8.1	FEH 2022 (40): 100 years: +40 %: 360 mins: Winter	54.600	52.835	54.530	1.695	41.5	1.917	0.000	41.2	863.257	Flood Risk
S12	FEH 2022 (40): 100 years: +40 %: 2880 mins: Winter	51.900	49.960	51.452	1.492	9.6	1.688	0.000	9.6	2306.538	Surcharged
S13	FEH 2022 (40): 100 years: +40 %: 2880 mins: Winter	51.500	49.885	49.962	0.077	9.6	0.000	0.000	9.6	2306.531	OK
S8.6	FEH 2022 (40): 100 years: +40 %: 480 mins: Summer	54.550	53.150	53.995	0.845	29.7	0.956	0.000	11.1	596.254	Surcharged
S7.000 J3	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer		51.917	54.393	2.476	43.6			20.5	924.268	Surcharged
S7.000 J2	FEH 2022 (40): 100 years: +40 %: 180 mins: Summer		52.047	54.412	2.365	45.6			46.1	228.029	Surcharged
S8.7	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.990	54.375	54.408	0.033	2.3	0.005	0.000	2.3	6.555	OK
S8.8	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.930	54.425	54.455	0.030	1.2	0.005	0.000	1.2	3.303	OK
S7.000 J1	FEH 2022 (40): 100 years: +40 %: 180 mins: Summer		52.051	54.414	2.363	44.2			44.7	224.819	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			



FEH 2022 (40): 100 years: Increase Rainfall (%): +40: Critical Storm Per Item:
Rank By: Max. Resident Volume

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
BASIN	FEH 2022 (40): 100 years: +40 %: 2880 mins: Winter	51.453	51.453	1.453	1.453	21.8	1007.636	0.000	0.000	9.6	2306.560	-17.721	Flood Risk
MUGA South	FEH 2022 (40): 100 years: +40 %: 960 mins: Summer	54.058	54.059	0.511	0.879	33.1	163.775	0.000	0.000	10.5	186.098	42.231	OK
3G PITCH	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	54.672	54.554	0.083	0.334	59.6	87.003	0.000	0.000	16.5	104.777	49.471	OK
MUGA North	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	55.041	54.767	0.066	0.042	26.7	21.555	0.000	0.000	17.3	54.108	75.042	OK
Artificial Pitch 1	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	55.189	54.844	0.123	0.524	164.3	490.015	50.699	0.000	30.1	538.591	38.810	Flood
PP East	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	56.099	54.971	0.197	0.005	1.8	9.757	0.128	0.000	0.5	12.324	24.746	OK
PP North	FEH 2022 (40): 100 years: +40 %: 720 mins: Summer	55.866	55.028	0.205	0.008	1.3	7.197	0.063	0.000	0.4	11.496	29.928	OK
PP Centre-North	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	55.826	54.895	0.196	0.008	1.4	6.986	0.062	0.000	0.4	10.773	31.553	OK
PP Centre	FEH 2022 (40): 100 years: +40 %: 720 mins: Summer	55.361	54.680	0.201	0.005	1.0	5.740	0.000	0.000	0.3	9.771	32.898	OK
PP Centre-South	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	55.040	54.762	0.157	0.010	1.5	1.110	0.000	0.000	0.9	2.869	69.588	OK
PP South	FEH 2022 (40): 100 years: +40 %: 960 mins: Summer	55.130	54.464	0.244	0.023	1.1	8.499	0.171	0.000	0.4	12.944	24.101	OK

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: CS	Checked by:	Approved By:	
		Revision: 1 Surcharged Outfall			

PP South-West	FEH 2022 (40): 100 years: +40 %: 360 mins: Summer	54.896	54.449	0.262	0.015	1.0	1.874	0.000	0.000	0.6	5.142	49.790	OK
PP North-West	FEH 2022 (40): 100 years: +40 %: 960 mins: Summer	54.935	54.448	0.248	0.003	0.7	4.800	0.013	0.000	0.3	9.332	35.631	OK
Cellular Storage	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	54.482	54.482	2.032	2.032	70.7	137.241	0.000	0.000	1.2	8.923	0.514	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				



FEH 2022 (40): 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flow

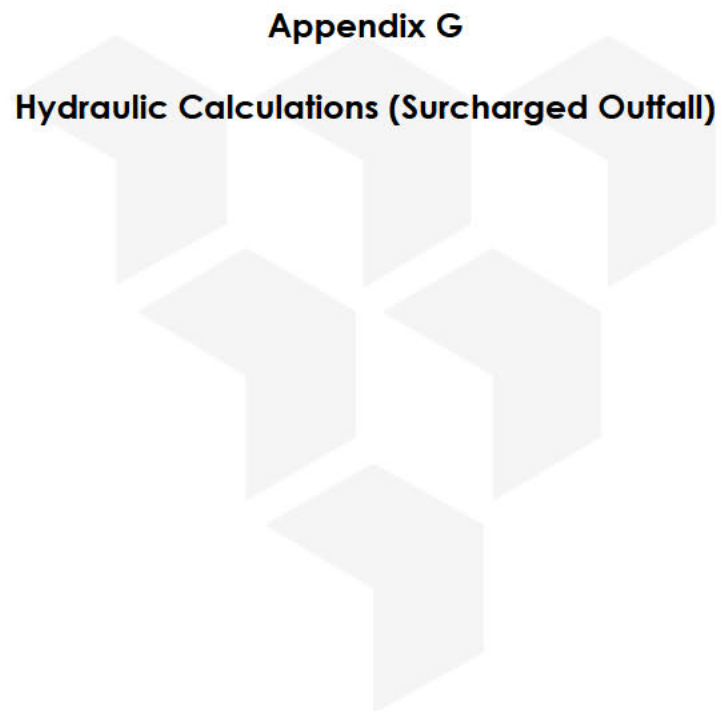
Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
S1.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S1	S2	54.500	54.431	0.225	16.361	0.6	0.24	8.4	Flood Risk
S2.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S2	S3	54.410	54.430	0.300	26.683	0.4	0.28	20.5	Flood
S3.000	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	Pipe	S3	S4	55.350	54.429	0.300	123.098	0.7	0.44	31.7	Surcharged
S4.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S4	S5	56.255	54.443	0.375	227.895	0.8	0.76	87.5	Surcharged
S6.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S6	S7	55.000	54.415	0.375	259.896	0.9	0.81	99.2	Surcharged
S8.005	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	Pipe	S8.5	S8.4	54.800	54.672	0.225	535.164	1.0	0.71	30.2	Flood Risk
S8.004	FEH 2022 (40): 100 years: +40 %: 240 mins: Summer	Pipe	S8.4	S8.3	55.000	54.598	0.225	531.642	1.0	0.69	30.2	Surcharged
S8.003	FEH 2022 (40): 100 years: +40 %: 720 mins: Winter	Pipe	S8.3	S8.2	54.750	54.490	0.300	887.295	0.9	0.41	31.2	Flood Risk
S8.002	FEH 2022 (40): 100 years: +40 %: 720 mins: Winter	Pipe	S8.2	S8.1	54.900	54.470	0.300	887.227	1.1	0.41	30.9	Surcharged
S8.001	FEH 2022 (40): 100 years: +40 %: 360 mins: Winter	Pipe	S8.1	S8	54.600	54.530	0.150	859.480	2.3	0.71	41.2	Flood Risk
S8.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Winter	Pipe	S8	BASIN	54.400	54.400	0.217	302.113	2.4	0.16	23.8	Flood

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025								
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:						
				CS								
				Revision: 1 Surcharged Outfall								

S10.000	FEH 2022 (40): 100 years: +40 %: 2880 mins: Winter	Pipe	S12	S13	51.900	51.452	0.079	2306.531	0.6	0.15	9.6	Surch arged
S9.000	FEH 2022 (40): 100 years: +40 %: 2880 mins: Winter	Pipe	BASIN	S12	51.625	51.453	0.450	2306.560	0.2	0.05	9.6	Flood Risk
S7.011	FEH 2022 (40): 100 years: +40 %: 480 mins: Summer	Pipe	MUGA South	S8.6	54.480	53.809	0.150	14.023	1.0	0.61	11.0	Surch arged
S7.000 (J3)	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	Pipe	S7.000 J3	S8	54.625	54.393	0.450	270.965	0.2	0.11	20.5	Surch arged
S7.007	FEH 2022 (40): 100 years: +40 %: 480 mins: Summer	Pipe	S8.6	S7.000 J3	54.550	53.995	0.150	13.933	1.0	0.31	11.1	Surch arged
S8.101	FEH 2022 (40): 100 years: +40 %: 120 mins: Winter	Pipe	3G PITCH	S8.1	54.610	54.394	0.150	105.032	3.4	0.14	17.2	Surch arged
S8.301	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	MUGA North	S8.3	55.185	54.815	0.150	54.108	1.0	0.19	17.3	OK
S8.006a	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	Artifical Pitch 1	S8.5	54.810	54.811	0.225	233.315	1.5	0.24	39.5	Flood
S5.201	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP East	S5	56.331	55.145	0.150	3.613	1.7	0.01	1.1	Surch arged
S7.000 (J2)	FEH 2022 (40): 100 years: +40 %: 180 mins: Summer	Pipe	S7.000 J2	S7.000 J3	55.060	54.412	0.450	227.561	0.5	0.26	46.1	Surch arged
S7.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S7	S7.000 J1	55.025	54.411	0.450	179.952	0.6	0.25	46.2	Surch arged
S7.000 (J1)	FEH 2022 (40): 100 years: +40 %: 180 mins: Summer	Pipe	S7.000 J1	S7.000 J2	55.010	54.414	0.450	224.554	0.6	0.24	44.7	Surch arged
S7.005	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S8.8	S8.7	54.930	54.455	0.026	3.303	0.7	0.08	1.2	OK
S7.004	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S8.7	S7.000 J2	54.990	54.408	0.150	6.501	1.0	0.03	2.3	OK

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details:		Designed by: CS	Checked by:		Approved By:
Type: Connections Summary Storm Phase: Phase		Revision: 1 Surcharged Outfall			

S7.006	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP South	S8.8	55.315	54.616	0.034	3.314	0.4	0.14	1.2	Surcharged
S7.012	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP North- West	S7.000 J1	55.117	54.593	0.150	2.970	0.4	0.01	1.1	OK
S5.000	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	S5	S6	55.475	54.423	0.375	241.305	0.8	0.8	91.9	Surcharged
S7.003b	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP Centre- South	S7	55.182	54.834	0.150	2.869	0.8	0.01	0.9	OK
S7.001	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	Pipe	S7.1	S7	55.150	54.400	0.225	53.844	0.6	0.34	15.0	Surcharged
S7.003a	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP Centre	S7	55.110	54.839	0.150	3.053	1.1	0.01	0.9	Surcharged
S7.002a	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP North	S7.1	55.405	55.187	0.150	3.433	1.2	0.02	1.1	Surcharged
S7.002b	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP Centre- North	S7.1	55.317	55.053	0.150	3.538	1.3	0.02	1.1	Surcharged
S7.211	FEH 2022 (40): 100 years: +40 %: 120 mins: Summer	Pipe	PP South- West	S8.7	55.064	54.565	0.022	3.204	0.9	0.03	1.1	OK
Pipe	FEH 2022 (40): 100 years: +40 %: 600 mins: Summer	Pipe	Cellular Storage	S7.1	55.200	54.400	0.225	0.000	0.6	0.48	14.6	Surcharged



Appendix G

Hydraulic Calculations (Surcharged Outfall)

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Outfall Details Storm Phase: Phase		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
S13	Fixed Surcharged Level	☒	51.215	
FEH 2022 : 100 years: +20 %: 120 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 120 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 180 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 180 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 240 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 240 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 360 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 360 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 480 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 480 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 600 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 600 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 720 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 720 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 960 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 960 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 1440 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 1440 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 2160 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 2160 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 2880 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 2880 mins: Winter			51.215	
FEH 2022 : 100 years: +20 %: 4320 mins: Summer			51.215	
FEH 2022 : 100 years: +20 %: 4320 mins: Winter			51.215	

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Rainfall Analysis Criteria		Designed by: CS	Checked by:		Approved By:
		Revision: 1 Surcharged Outfall			

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

Rainfall

FEH 2022		Type: FEH
Site Location	GB 519000 133350 TQ 19000 33350	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	20.000

Storm Durations

Duration (mins)	Run Time (mins)
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
Report Details: Type: Junctions Summary Storm Phase: Phase	Designed by: CS	Checked by:	Approved By:	
	Revision: 1 Surcharged Outfall			



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Outflow

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Junctions Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				

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
S1	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.500	53.070	54.419	1.349	7.2	1.525	0.000	7.6	14.048	Flood Risk
S2	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.410	52.925	54.414	1.489	17.0	10.890	3.600	23.2	25.321	Flood
S3	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.350	52.705	54.418	1.713	38.2	2.451	0.000	38.3	88.802	Surcharged
S4	FEH 2022: 100 years: +20 %: 120 mins: Summer	56.255	52.400	54.382	1.982	84.6	2.837	0.000	84.3	193.428	Surcharged
S5	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.475	52.275	54.312	2.037	92.0	2.915	0.000	91.5	203.984	Surcharged
S6	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.000	52.175	54.276	2.101	101.2	3.007	0.000	100.5	219.331	Surcharged
S7	FEH 2022: 100 years: +20 %: 360 mins: Summer	55.025	52.070	54.378	2.308	57.1	3.303	0.000	35.5	441.128	Surcharged
S8	FEH 2022: 100 years: +20 %: 240 mins: Summer	54.400	51.895	54.378	2.483	37.3	3.554	0.000	23.8	744.160	Flood Risk
S7.1	FEH 2022: 100 years: +20 %: 480 mins: Summer	55.150	52.390	54.349	1.959	46.9	2.216	0.000	14.7	304.210	Surcharged
S8.5	FEH 2022: 100 years: +20 %: 120 mins: Winter	54.800	53.930	54.592	0.662	30.1	2.997	0.000	30.2	266.945	Flood Risk
S8.4	FEH 2022: 100 years: +20 %: 120 mins: Winter	55.000	53.420	54.487	1.067	30.2	1.207	0.000	30.3	263.393	Surcharged
S8.3	FEH 2022: 100 years: +20 %: 600 mins: Winter	54.750	53.195	54.409	1.214	32.4	1.373	0.000	31.8	718.206	Surcharged
S8.2	FEH 2022: 100 years: +20 %: 600 mins: Winter	54.900	53.000	54.389	1.389	31.8	1.571	0.000	31.0	718.120	Surcharged
S8.1	FEH 2022: 100 years: +20 %: 180 mins: Winter	54.600	52.835	54.439	1.604	43.2	1.814	0.000	42.9	559.954	Flood Risk
S12	FEH 2022: 100 years: +20 %: 2160 mins: Winter	51.900	49.960	51.672	1.712	9.4	1.937	0.000	9.4	1071.713	Flood Risk
S13	FEH 2022: 100 years: +20 %: 2160 mins: Winter	51.500	49.885	51.215	1.330	9.4	0.000	0.000	9.4	1070.178	Flood Risk
S8.6	FEH 2022: 100 years: +20 %: 360 mins: Summer	54.550	53.150	53.890	0.740	28.4	0.837	0.000	10.5	463.831	Surcharged
S7.000 J3	FEH 2022: 100 years: +20 %: 480 mins: Summer		51.917	54.342	2.425	34.2			20.2	771.473	Surcharged
S7.000 J2	FEH 2022: 100 years: +20 %: 360 mins: Summer		52.047	54.376	2.329	36.4			36.4	329.710	Surcharged
S8.7	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.990	54.375	54.390	0.015	1.9	0.002	0.000	1.9	5.467	OK
S8.8	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.930	54.425	54.453	0.028	1.0	0.004	0.000	1.0	2.774	OK
S7.000 J1	FEH 2022: 100 years: +20 %: 360 mins: Summer		52.051	54.377	2.326	35.8			35.7	323.513	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025				
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase				Designed by: CS	Checked by:	Approved By:		
				Revision: 1 Surcharged Outfall				



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank
By: Max. Resident Volume

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
BASIN	FEH 2022: 100 years: +20 %: 4320 mins: Summer	51.765	51.765	1.765	1.765	21.8	1415.946	186.184	0.000	9.4	1596.300	-65.424	Flood
MUGA South	FEH 2022: 100 years: +20 %: 720 mins: Summer	53.924	53.927	0.376	0.747	30.8	132.043	0.000	0.000	9.9	149.721	53.424	OK
3G PITCH	FEH 2022: 100 years: +20 %: 120 mins: Summer	54.664	54.461	0.074	0.241	49.8	63.802	0.000	0.000	15.0	90.663	62.946	OK
MUGA North	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.035	54.764	0.060	0.039	22.9	19.239	0.000	0.000	14.7	46.096	77.723	OK
Artificial Pitch 1	FEH 2022: 100 years: +20 %: 240 mins: Summer	55.176	54.664	0.110	0.344	140.8	398.289	0.000	0.000	30.5	480.376	50.264	OK
PP East	FEH 2022: 100 years: +20 %: 960 mins: Summer	56.060	54.970	0.159	0.004	1.1	8.871	0.033	0.000	0.3	14.153	31.581	OK
PP North	FEH 2022: 100 years: +20 %: 960 mins: Summer	55.830	55.027	0.168	0.007	0.9	6.391	0.000	0.000	0.3	11.472	37.779	OK
PP Centre-North	FEH 2022: 100 years: +20 %: 720 mins: Summer	55.793	54.894	0.163	0.007	1.1	6.190	0.000	0.000	0.4	10.223	39.351	OK
PP Centre	FEH 2022: 100 years: +20 %: 720 mins: Summer	55.330	54.680	0.170	0.005	0.9	4.978	0.000	0.000	0.3	8.348	41.805	OK
PP Centre-South	FEH 2022: 100 years: +20 %: 120 mins: Summer	55.020	54.761	0.137	0.009	1.3	0.967	0.000	0.000	0.8	2.441	73.510	OK
PP South	FEH 2022: 100 years: +20 %: 1440 mins: Summer	55.094	54.460	0.209	0.019	0.7	7.894	0.005	0.000	0.2	13.643	29.501	OK

Project: Mowbray Horsham Catchment 5 Sports Hub		Date: 26/11/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: CS	Checked by:	Approved By:	
		Revision: 1 Surcharged Outfall			

PP South-West	FEH 2022: 100 years: +20 %: 360 mins: Summer	54.863	54.448	0.229	0.014	0.9	1.644	0.000	0.000	0.5	4.388	55.941	OK
PP North-West	FEH 2022: 100 years: +20 %: 1440 mins: Summer	54.899	54.448	0.212	0.003	0.5	4.179	0.000	0.000	0.2	9.548	43.956	OK
Cellular Storage	FEH 2022: 100 years: +20 %: 240 mins: Summer	54.386	54.386	1.936	1.936	67.8	137.15 1	0.000	0.000	8.1	36.134	0.579	OK

Project: Mowbray Horsham Catchment 5 Sports Hub	Date: 26/11/2025			
	Designed by:	Checked by:	Approved By:	
	CS			
Report Details: Type: Connections Summary Storm Phase: Phase	Revision: 1 Surcharged Outfall			



FEH 2022: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	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
S1.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S1	S2	54.500	54.419	0.225	13.942	0.5	0.22	7.6	Flood Risk
S2.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S2	S3	54.410	54.414	0.300	22.307	0.3	0.32	23.2	Flood
S3.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S3	S4	55.350	54.418	0.300	85.781	0.8	0.53	38.3	Surcharged
S4.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S4	S5	56.255	54.382	0.375	193.286	0.8	0.73	84.3	Surcharged
S6.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S6	S7	55.000	54.276	0.375	219.307	0.9	0.82	100.5	Surcharged
S8.005	FEH 2022: 100 years: +20 %: 120 mins: Winter	Pipe	S8.5	S8.4	54.800	54.592	0.225	266.945	1.0	0.71	30.2	Flood Risk
S8.004	FEH 2022: 100 years: +20 %: 120 mins: Winter	Pipe	S8.4	S8.3	55.000	54.487	0.225	263.393	1.0	0.69	30.3	Surcharged
S8.003	FEH 2022: 100 years: +20 %: 600 mins: Winter	Pipe	S8.3	S8.2	54.750	54.409	0.300	718.206	0.9	0.42	31.8	Surcharged
S8.002	FEH 2022: 100 years: +20 %: 600 mins: Winter	Pipe	S8.2	S8.1	54.900	54.389	0.300	718.120	1.1	0.42	31.0	Surcharged
S8.001	FEH 2022: 100 years: +20 %: 180 mins: Winter	Pipe	S8.1	S8	54.600	54.439	0.150	559.918	2.4	0.74	42.9	Flood Risk
S8.000	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S8	BASIN	54.400	54.371	0.225	833.073	1.9	0.16	23.8	Flood Risk
S10.000	FEH 2022: 100 years: +20 %: 2160 mins: Winter	Pipe	S12	S13	51.900	51.672	0.300	1070.178	0.1	0.14	9.4	Flood Risk
S9.000	FEH 2022: 100 years: +20 %: 2160 mins: Summer	Pipe	BASIN	S12	51.625	51.653	0.450	1037.482	0.3	0.05	9.4	Flood
S7.011	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	MUGA South	S8.6	54.480	53.687	0.150	11.400	1.0	0.58	10.4	Surcharged

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025								
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by:	Checked by:	Approved By:						
				CS								
				Revision: 1 Surcharged Outfall								

S7.000 (J3)	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	S7.000 J3	S8	54.625	54.342	0.450	231.349	0.2	0.11	20.2	Surcharged
S7.007	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S8.6	S7.000 J3	54.550	53.890	0.150	11.162	1.0	0.29	10.5	Surcharged
S8.101	FEH 2022: 100 years: +20 %: 180 mins: Winter	Pipe	3G PITCH	S8.1	54.610	54.336	0.150	101.831	3.6	0.13	15.2	OK
S8.301	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	MUGA North	S8.3	55.185	54.806	0.150	46.096	0.8	0.16	14.7	OK
S8.006a	FEH 2022: 100 years: +20 %: 360 mins: Winter	Pipe	Artificial Pitch 1	S8.5	54.810	54.486	0.225	553.454	1.6	0.22	35.5	OK
S5.201	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP East	S5	56.331	55.120	0.150	3.042	1.7	0	1.0	Surcharged
S7.000 (J2)	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7.000 J2	S7.000 J3	55.060	54.376	0.450	320.928	0.4	0.2	36.4	Surcharged
S7.000	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7	S7.000 J1	55.025	54.378	0.450	311.948	0.5	0.19	35.5	Surcharged
S7.000 (J1)	FEH 2022: 100 years: +20 %: 360 mins: Summer	Pipe	S7.000 J1	S7.000 J2	55.010	54.377	0.450	315.137	0.6	0.19	35.7	Surcharged
S7.005	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S8.8	S8.7	54.930	54.453	0.022	2.774	0.6	0.07	1.0	OK
S7.004	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S8.7	S7.000 J2	54.990	54.390	0.150	5.467	1.0	0.02	1.9	OK
S7.006	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP South	S8.8	55.315	54.592	0.032	2.783	0.4	0.11	1.0	Surcharged
S7.012	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP North- West	S7.000 J1	55.117	54.572	0.150	2.500	0.4	0.01	0.9	OK
S5.000	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	S5	S6	55.475	54.312	0.375	203.942	0.8	0.79	91.5	Surcharged
S7.003b	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre- South	S7	55.182	54.824	0.150	2.441	0.8	0.01	0.8	OK
S7.001	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	S7.1	S7	55.150	54.349	0.225	41.521	0.6	0.33	14.7	Surcharged
S7.003a	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre	S7	55.110	54.816	0.150	2.555	1.0	0.01	0.8	OK

Project: Mowbray Horsham Catchment 5 Sports Hub				Date: 26/11/2025											
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by: CS								Checked by:		Approved By:	
				Revision: 1								Surcharged Outfall			

S7.002a	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP North	S7.1	55.405	55.164	0.150	2.883	1.3	0.01	0.9	OK
S7.002b	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP Centre- North	S7.1	55.317	55.030	0.150	2.976	1.4	0.01	0.9	OK
S7.211	FEH 2022: 100 years: +20 %: 120 mins: Summer	Pipe	PP South- West	S8.7	55.064	54.548	0.017	2.699	0.9	0.03	0.9	OK
Pipe	FEH 2022: 100 years: +20 %: 480 mins: Summer	Pipe	Cellular Storage	S7.1	55.200	54.349	0.225	0.000	0.7	0.47	14.3	Surcharged

Appendix H

SuDS Management and Maintenance Plan

Mowbray, North Horsham, West Sussex

Sports Hub – SuDS Management and Maintenance Plan

1.0 Site and Drainage Description

- 1.1 The wider Mowbray development at North Horsham is currently under construction with various applications for the approval of reserved matters for individual infrastructure elements and subphases, both under consideration and determined.
- 1.2 This SuDS Management and Maintenance Plan relates to the drainage infrastructure proposed as part of the Sports Hub.
- 1.3 Surface water run-off generated by Sports Hub will be discharged to the existing network of watercourses running through the wider development site, utilising attenuation provided by a basin, pervious pavements and geo-cellular attenuation crates located across the Sports Hub development.
- 1.4 Foul effluent generated by the Sports Hub will be conveyed by a sewer network, which will gravitate flows to a pump station constructed as part of Phase 1 of the development.
- 1.5 This plan should be read alongside the accompanying Drainage Statement for the Sports Hub. This SuDS Management and Maintenance Plan does not constitute a complete maintenance schedule and should be developed at the appropriate design stage, taking into account advice and recommendations from system manufacturers and installers. Appropriate health and safety measures should also be put in place.

2.0 Management Responsibilities

- 2.1 The proposed surface and foul water pipe network and associated drainage infrastructure serving the Sports Hub are to remain private and be the responsibility of a management company and/or Roffey Football Club. This includes storage features such as the basin, pervious pavement and geo-cellular storage crates.
- 2.2 The foul water rising main which passes through the site from Foul Water Pumping Station 3 (FWPS3, outside of the application boundary) and into the existing foul water network at the western end of the application site, will be offered for adoption by the Water and Sewerage Undertaker and will be their responsibility to maintain.

3.0 Maintenance Activities

- 3.1 This section details the type and frequency of maintenance activities for the drainage infrastructure which will be implemented as part of the Sports Hub.

Conventional Pipe Network / Inspection Chambers / Catchpits / Gullies

- 3.2 Piped network components require regular inspection and maintenance to ensure that the individual components continue to operate as designed, both in terms of hydraulic capacity and potential pollutant removal. All gullies, inspection chambers and catchpits will therefore be inspected and cleaned regularly, with typical maintenance activities detailed in Table 1.

Table 1: Conventional Pipe Network / Inspection Chambers / Gullies – Typical Maintenance Activities

Maintenance Schedule	Maintenance Activity	Inspection Frequency
Regular Maintenance	Inspect and identify any features that are not operating correctly. If required, take remedial action.	Monthly (for first three months), then six monthly
	Remove debris from catchment surface / gratings (where it may cause risk to performance).	Quarterly and after large storms
	Inspect and remove sediment, debris, and silt from gullies, silt traps, and catchpit chambers.	Annually, or as required
	Inspect pipework for blockages, root ingress, displaced joints, or other signs of differential settlement.	Annually, or as required
Remedial Actions	Clear pipework of blockages, root ingress, repair joints or repair other signs of differential settlement.	As required
	Replacement of gullies / pipe system	As required
	Repair / rehabilitation of gratings, inlets and outlets	As required
Monitoring	Inspect / check all gratings, manholes, gullies, and catchpits to ensure that they are in good condition and operating as designed.	Annually and after large storm events
Structure Rehabilitation / Repair	Regular maintenance and monitoring to identify if repair and / or replacement of features or pipe system is required.	As required

Attenuation Basin

- 3.3 The attenuation basin is a landscaped depression within which surface water is attenuated prior to being discharged to the watercourse. To ensure the effective operation of the basin with limited erosion and silt accumulation, regular inspection and maintenance is required including the typical maintenance activities detailed in Table 2.

Table 2: Attenuation Basins – Typical Maintenance Activities

Maintenance Schedule	Maintenance Activity	Inspection Frequency
Regular Maintenance	Mow grass access paths and verges surrounding basins, at 35mm-50mm minimum and 75mm maximum.	Monthly (during growing season), or as required
	Mow rough grass areas for occasional access or habitat reasons at 100mm and 150mm maximum with cutting removed to wildlife piles.	As required
	Manage other vegetation and remove nuisance plants.	Monthly (for first three months, then as required)
	Inspect for signs of clogging and remove any litter / debris found.	Monthly, or as required
	Inspect and clear inlets, outlets, and overflows of any blockages.	Annually, or as required
	Inspect inlets and pre-treatment systems for silt accumulation; establish appropriate silt removal frequencies.	Monthly (for first year), then annually, or as required
	Inspect banksides for evidence of physical damage and repair as appropriate.	Annually, or as required
	Cut (strim) wetland vegetation at 100mm and remove cuttings.	Annually, or as required
	Reseed areas of poor vegetation growth.	As required
	Prune and trim any trees and remove cuttings.	Every 2 years, or as required
Occasional Maintenance	Where silt accumulates on apron or area in front of inlet or outlet then remove and spread above design profile of SuDS. Where silt accumulates more than 150mm in base of basins undertake a phased removal of silt subject to Client approval. Remove silt but not more than 30% of basin area at any one time and to an agreed depth. Retain as much representative existing vegetation as possible to ensure rapid recolonisation of open areas. Stack excavated material adjacent to basin to allow de-watering of silt. Undertake silt removal during September-October to minimise damage to protected wildlife and ensure re-growth of aquatic vegetation before winter. Spread excavated material on site above SUDS design profile.	Every 3 years, or as required (likely to be minimal requirements where effective upstream source control is provided)
Remedial Actions	Repair erosion or other damage by reseedling or re-turfing.	As required

Geo-Cellular Attenuation Crates

- 3.4 Geo-cellular attenuation crates are below ground structures utilised to attenuate surface water run-off. To ensure both the effective operation and hydraulic capacity of the attenuation crates is maintained, regular inspection and maintenance is required including the typical maintenance activities detailed in Table 3.

Table 3: Geo-Cellular Attenuation Crates (Wavin or Similar)* - Typical Maintenance Activities

Maintenance Schedule	Maintenance Activity	Inspection Frequency
Regular maintenance	Initial inspection and identify any areas that are not operating correctly and either clean or replacement inlets, outlets, overflows, and/or vents.	Monthly for 3 months, then annually
	Inspect / check all inlets, outlets, vents, and overflows to ensure that they are in good condition and operating as designed.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays.	Annually, or as required

*Refer to manufacturer's guidance for specific maintenance instructions.

Inlet / Outlets / Controls

- 3.5 Headwalls, flow control chambers and outfalls direct the flow in and control the flow rate out of the proposed attenuation basins and other storage features. To prevent surface water exceedance, regular inspection and maintenance of these structures are required to remove potential blockages and ensure the intended design flow rates are achieved. Typical maintenance activities for these structures are included in Table 4.

Table 4: Inlets / Outlets / Flow Control Devices* – Typical Maintenance Activities

Maintenance Schedule	Maintenance Activity	Inspection Frequency
Regular Maintenance	Inspect control chamber and remove any sediment, debris, and silt to ensure water is flowing freely.	Quarterly, or as required
	Inspect chamber and incoming / outgoing pipework for blockage or root ingress.	Six monthly, or as required
	Inspect surface structures for physical damage.	Quarterly, or as required
	Cut (Strim) vegetation 1m minimum from the surround of structures.	Six monthly (spring and autumn)
	Remove debris and silt from hard head wall aprons.	Quarterly, or as required
	Inspect and clear headwall grills.	Quarterly, or as required
	Undertake general inspection after Autumn leaf fall	Annually
Occasional Maintenance	Check topsoil levels are 20mm above chamber edges to avoid mower damage.	As required
Remedial Actions	Clear chamber and incoming / outgoing pipework of blockages.	As required
	Repair physical damage or replace missing grills or controls	As required

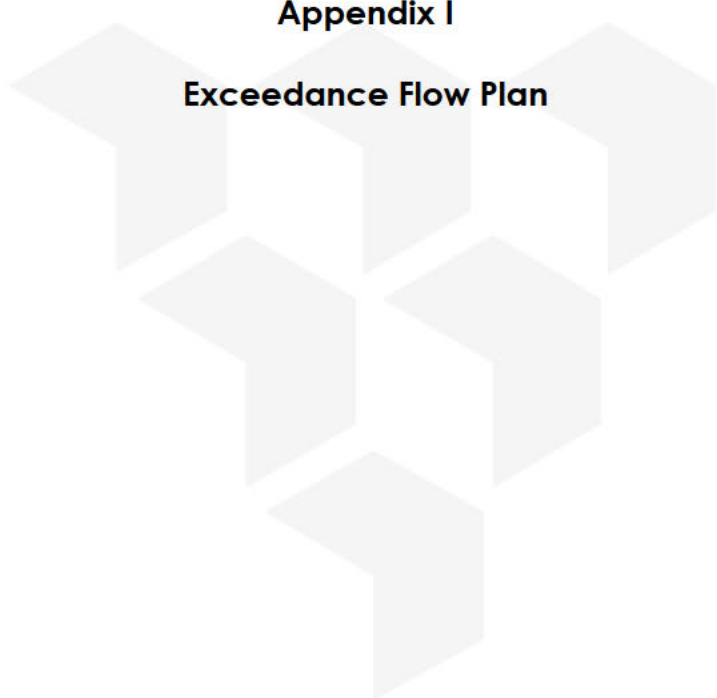
*Refer to manufacturer's guidance for specific maintenance instructions

Pervious Pavements

- 3.6 Porous sub-bases are located below the Artificial Grass Pitch, 3G pitch, MUGAs and parking bays which both convey and attenuate surface water flows. To prevent clogging and surface water exceedance, regular inspection and maintenance of these structures are required. Typical maintenance activities for these structures are included in Table 5.

Table 5: Pervious Pavements – Typical Maintenance Activities

Maintenance Schedule	Maintenance Activity	Inspection Frequency
Monitoring	Initial inspection	Monthly for three months after installation.
	Inspect for evidence of poor operation and/or weed growth.	Three monthly, and 48 hours after large storms in the first six months.
	Monitor inspection chambers.	Annually.
	Check for surface for signs of clogging or build-up of debris/dirt/silt etc. Particular attention to be paid to areas where water runs onto the pervious surface from adjacent impermeable areas i.e. transition from aisle to parking bay.	Annually.
Regular Maintenance	Brush and/or vacuum surface.	Based on site-specific observations of clogging (see above, or else annually (after autumn leaf fall).
Occasional Maintenance	Removal of weeds or management using glyphosphate applied directly into the weeds by an applicator (rather than spraying).	As required, or else annually.
Remedial Actions	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material.	As required.
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10–15 years or as required



Appendix I

Exceedance Flow Plan

NOTES

1. This drawing is to be read in conjunction with all other relevant documents and specifications.
2. This drawing has been prepared for information only and must not be used for costing, or construction purposes.
3. Scaleable for planning purposes only.

KEY

- Application boundary
- Exceedance flow path



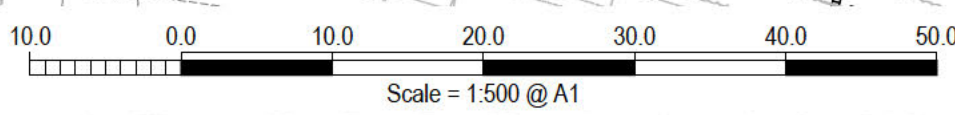
Exceedance flows from the MUGA and artificial grass pitch will flow overland across the bike track, then across a landscaped area (outside this application boundary but within the wider outline planning application boundary and designated as soft landscaping) into Channels Brook

Exceedance flows from the 3G pitch and MUGA will flow overland into the attenuation basin.

Exceedance events will first fill the freeboard of the attenuation basin. In the unlikely event that the basin capacity is then exceeded, flows will overtop the basin and flow overland into Channels Brook.

Exceedance flows from final flow control manhole follow the topographical falls and flow into the Channels Brook.

Exceedance flows from the car park, access road and hard paved areas around the pavilion flow away from the proposed pavilion building and into Channels Brooks



DRAINAGE AND LEVELS ARE INDICATIVE AND SUBJECT TO FURTHER DETAILED DESIGN

P1	First issue.	26/11/2025 D. Strange	CS
Rev.	Description	Date	Chkd



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Client: Legal & General
(Strategic Land North Horsham) Limited

Project: Mowbray (Land North of Horsham)

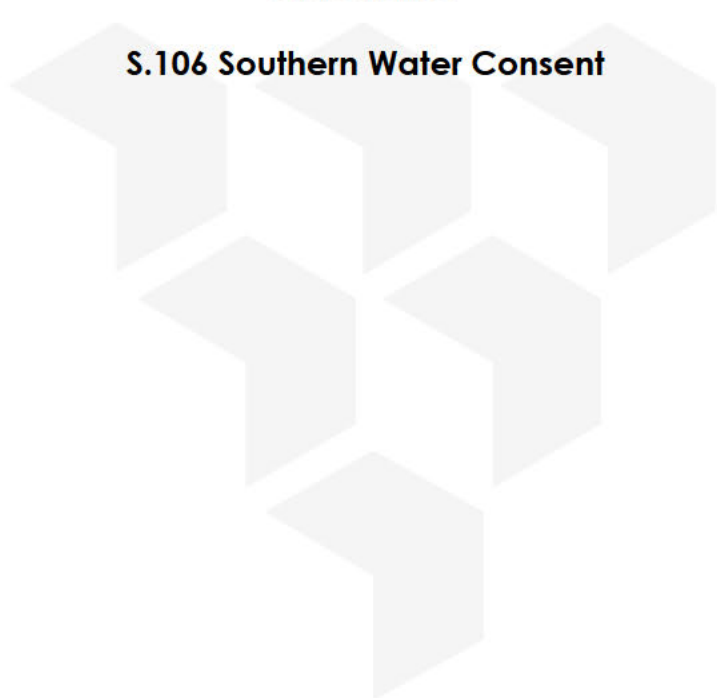
Title: Sports Hub
Exceedance Flow Plan
Sheet 1

Project Engineer: C. Salt Scale: 1:500 @ A1
Project Director: J. Birch Date: Nov 2025
Status: PLANNING

Drawing No. MOW-GLA-SH-PH2-D-C-1114 Rev P1

Appendix J

S.106 Southern Water Consent





Ms Charlotte Salt
Glanville Consultants Ltd
Cornerstone House
62 Foxhall Road
Didcot
Oxon
OX11 7AD

Your ref

Our ref
PAPER_19477

Date
15 February 2023

Contact

Tel 0330 303 0119

Dear Ms Salt,

Application to Connect to the Public Sewerage System - Section 106.

Location: Mowbray Land North of Horsham, Horsham, West Sussex, RH12 5QR – Consent C.

We are pleased to advise that your Section 106 application to connect to the public foul sewer, as shown on your drawing GLA-S106-ZZ-D-C-1021 Revision P1 dated 12/12/2022, is approved by Southern Water. Our approval means we are satisfied with your connection method.

Connections to existing/new Southern Water assets (i.e., manholes) and the arrangement of Southern Water assets (i.e., pipe junctions within manholes) should always be in accordance with the new Design and Construction Guidance manual ("the Code") and Southern Water's guidance documentation. [water.org.uk/sewerage-sector-guidance-approved-documents/](https://www.water.org.uk/sewerage-sector-guidance-approved-documents/)

This Section 106 approval does not confirm that public sewer network capacity is available at your location for the proposed development. The availability of capacity may be assessed through the Pre-Planning Enquiry process.

Please note that your connection should not proceed if:

- There are unapproved changes to your submitted plan or to the intended connection point. Any unapproved changes may lead to us disconnecting your connection under S109 of the Water Industry Act 1991.
- The relevant Planning Authority has set out conditions relating to the site's drainage and those conditions have not yet been discharged.
- You have not consulted our Health and Safety Advisory that can be viewed at the following link southernwater.co.uk/developing-building/health-and-safety
- You have not obtained the necessary Building Regulations Approvals or, if relevant, obtained a Highway Authority Road Opening License

- Landowner consent has not been obtained where your connection is to be made through another Party's land.

What Comes Next?

Now you have received our approval, you will now need to arrange with your contractor to carry out your works on site to connect into our sewer.

Please contact Malcolm Penny our Assistant Adoption Manager for this area on 07922 860784 giving at least two full working days' notice, in order for a mutually convenient date and time for the inspection of the works to be arranged.

Yours sincerely,



Samantha Jenkins
Interim Head of Developer Services
Developer Services



Ms Charlotte Salt
Glanville Consultants Ltd
Cornerstone House
62 Foxhall Road
Didcot
Oxon
OX11 7AD

Your ref

Our ref
PAPER_19451

Date
15 February 2023

Contact

Tel 0330 303 0119

Dear Ms Salt,

Application to Connect to the Public Sewerage System - Section 106.

Location: Mowbray Land North of Horsham, Horsham, West Sussex, RH12 5QR – Consent A.

We are pleased to advise that your Section 106 application to connect to the public foul sewer, as shown on your drawing GLA-S106-ZZ-D-C-1021 Revision P1 dated 12/12/2022, is approved by Southern Water. Our approval means we are satisfied with your connection method.

Connections to existing/new Southern Water assets (i.e., manholes) and the arrangement of Southern Water assets (i.e., pipe junctions within manholes) should always be in accordance with the new Design and Construction Guidance manual ("the Code") and Southern Water's guidance documentation. [water.org.uk/sewerage-sector-guidance-approved-documents/](https://www.water.org.uk/sewerage-sector-guidance-approved-documents/)

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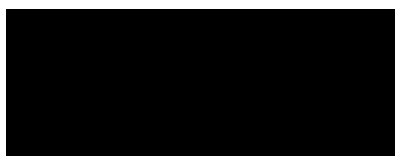
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Yours sincerely,



Samantha Jenkins
Interim Head of Developer Services
Developer Services

Hertfordshire

|

Oxfordshire

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Cambridgeshire

|

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