

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 720 mins: Summer	28. 711	26. 695	27.4 42	0.74 7	40.7	4.275	0.000	40.0	441.25 8	Surcha rged
FEH: 200 years: +45 %: 720 mins: Winter	28. 711	26. 695	27.4 44	0.74 9	26.3	4.289	0.000	25.8	441.25 7	Surcha rged
FEH: 200 years: +45 %: 960 mins: Summer	28. 711	26. 695	27.4 99	0.80 4	32.8	4.601	0.000	32.2	476.76 0	Surcha rged
FEH: 200 years: +45 %: 960 mins: Winter	28. 711	26. 695	27.5 03	0.80 8	21.0	4.625	0.000	20.5	476.67 2	Surcha rged
FEH: 200 years: +45 %: 1440 mins: Summer	28. 711	26. 695	27.5 67	0.87 2	23.9	4.993	0.000	23.4	532.71 7	Surcha rged
FEH: 200 years: +45 %: 1440 mins: Winter	28. 711	26. 695	27.5 74	0.87 9	15.4	5.032	0.000	15.1	532.67 5	Surcha rged
FEH: 200 years: +45 %: 2160 mins: Summer	28. 711	26. 695	27.6 04	0.90 9	17.7	5.206	0.000	17.3	595.13 1	Surcha rged
FEH: 200 years: +45 %: 2160 mins: Winter	28. 711	26. 695	27.6 17	0.92 2	11.4	5.281	0.000	11.2	595.03 2	Surcha rged
FEH: 200 years: +45 %: 2880 mins: Summer	28. 711	26. 695	27.6 07	0.91 2	14.2	5.220	0.000	14.0	645.36 4	Surcha rged
FEH: 200 years: +45 %: 2880 mins: Winter	28. 711	26. 695	27.6 24	0.92 9	9.2	5.318	0.000	9.0	644.92 7	Surcha rged

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Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	28. 711	26. 695	27.5 94	0.89 9	10.6	5.150	0.000	10.4	722.84 3	Surcha rged
FEH: 200 years: +45 %: 4320 mins: Winter	28. 711	26. 695	27.6 00	0.90 5	6.8	5.182	0.000	6.7	722.88 1	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Summer	28. 711	26. 695	27.5 79	0.88 4	8.6	5.059	0.000	8.4	781.70 0	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Winter	28. 711	26. 695	27.5 74	0.87 9	5.5	5.030	0.000	5.4	781.82 5	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Summer	28. 711	26. 695	27.5 61	0.86 6	7.3	4.958	0.000	7.2	833.06 3	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Winter	28. 711	26. 695	27.5 43	0.84 8	4.7	4.858	0.000	4.7	833.41 6	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Summer	28. 711	26. 695	27.5 45	0.85 0	6.4	4.868	0.000	6.3	880.61 5	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Winter	28. 711	26. 695	27.5 13	0.81 8	4.2	4.684	0.000	4.1	880.99 7	Surcha rged
FEH: 200 years: +45 %: 10080 mins: Summer	28. 711	26. 695	27.5 32	0.83 7	5.8	4.791	0.000	5.7	925.92 2	Surcha rged

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FEH: 200 years: +45 %: 10080 mins: Winter												
28.	26.	27.4	0.78	3.8	4.513	0.000	3.7	925.17	Surcharged			
711	695	83	8					7				

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S08-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.888	28.285	28.328	0.043	6.5	0.012	0.000	6.2	2.839	OK
FEH: 200 years: +45 %: 15 mins: Winter	28.888	28.285	28.327	0.042	6.1	0.012	0.000	5.8	2.828	OK
FEH: 200 years: +45 %: 30 mins: Summer	28.888	28.285	28.321	0.036	4.3	0.010	0.000	4.3	3.750	OK
FEH: 200 years: +45 %: 30 mins: Winter	28.888	28.285	28.320	0.035	4.1	0.010	0.000	4.1	3.750	OK
FEH: 200 years: +45 %: 60 mins: Summer	28.888	28.285	28.319	0.034	3.8	0.010	0.000	3.8	4.728	OK
FEH: 200 years: +45 %: 60 mins: Winter	28.888	28.285	28.316	0.031	3.0	0.009	0.000	3.0	4.728	OK
FEH: 200 years: +45 %: 120 mins: Summer	28.888	28.285	28.313	0.028	2.6	0.008	0.000	2.6	5.460	OK
FEH: 200 years: +45 %: 120 mins: Winter	28.888	28.285	28.309	0.024	1.9	0.007	0.000	1.9	5.460	OK

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FEH: 200 years: +45 %: 180 mins: Summer	28. 888	28. 285	28.3 10	0.02 5	2.0	0.007	0.000	2.0	5.964	OK
FEH: 200 years: +45 %: 180 mins: Winter	28. 888	28. 285	28.3 06	0.02 1	1.4	0.006	0.000	1.4	5.964	OK
FEH: 200 years: +45 %: 240 mins: Summer	28. 888	28. 285	28.3 08	0.02 3	1.6	0.006	0.000	1.6	6.372	OK
FEH: 200 years: +45 %: 240 mins: Winter	28. 888	28. 285	28.3 04	0.01 9	1.1	0.005	0.000	1.1	6.384	OK
FEH: 200 years: +45 %: 360 mins: Summer	28. 888	28. 285	28.3 05	0.02 0	1.2	0.006	0.000	1.2	7.026	OK
FEH: 200 years: +45 %: 360 mins: Winter	28. 888	28. 285	28.3 02	0.01 7	0.8	0.005	0.000	0.8	7.032	OK
FEH: 200 years: +45 %: 480 mins: Summer	28. 888	28. 285	28.3 03	0.01 8	1.0	0.005	0.000	1.0	7.548	OK
FEH: 200 years: +45 %: 480 mins: Winter	28. 888	28. 285	28.3 00	0.01 5	0.7	0.004	0.000	0.7	7.548	OK
FEH: 200 years: +45 %: 600 mins: Summer	28. 888	28. 285	28.3 02	0.01 7	0.9	0.005	0.000	0.9	7.986	OK
FEH: 200 years: +45 %: 600 mins: Winter	28. 888	28. 285	28.2 99	0.01 4	0.6	0.004	0.000	0.6	7.992	OK

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FEH: 200 years: +45 %: 720 mins: Summer	28.888	28.285	28.301	0.016	0.8	0.005	0.000	0.8	8.376	OK
FEH: 200 years: +45 %: 720 mins: Winter	28.888	28.285	28.298	0.013	0.5	0.004	0.000	0.5	8.394	OK
FEH: 200 years: +45 %: 960 mins: Summer	28.888	28.285	28.299	0.014	0.6	0.004	0.000	0.6	9.006	OK
FEH: 200 years: +45 %: 960 mins: Winter	28.888	28.285	28.297	0.012	0.4	0.003	0.000	0.4	9.018	OK
FEH: 200 years: +45 %: 1440 mins: Summer	28.888	28.285	28.298	0.013	0.5	0.004	0.000	0.5	10.068	OK
FEH: 200 years: +45 %: 1440 mins: Winter	28.888	28.285	28.295	0.010	0.3	0.003	0.000	0.3	9.996	OK
FEH: 200 years: +45 %: 2160 mins: Summer	28.888	28.285	28.296	0.011	0.3	0.003	0.000	0.3	11.202	OK
FEH: 200 years: +45 %: 2160 mins: Winter	28.888	28.285	28.294	0.009	0.2	0.003	0.000	0.2	11.220	OK
FEH: 200 years: +45 %: 2880 mins: Summer	28.888	28.285	28.295	0.010	0.3	0.003	0.000	0.3	12.024	OK
FEH: 200 years: +45 %: 2880 mins: Winter	28.888	28.285	28.293	0.008	0.2	0.002	0.000	0.2	12.030	OK

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FEH: 200 years: +45 %: 4320 mins: Summer	28.888	28.285	28.294	0.009	0.2	0.002	0.000	0.2	13.470	OK
FEH: 200 years: +45 %: 4320 mins: Winter	28.888	28.285	28.292	0.007	0.1	0.002	0.000	0.1	13.314	OK
FEH: 200 years: +45 %: 5760 mins: Summer	28.888	28.285	28.293	0.008	0.2	0.002	0.000	0.2	14.580	OK
FEH: 200 years: +45 %: 5760 mins: Winter	28.888	28.285	28.291	0.006	0.1	0.002	0.000	0.1	14.586	OK
FEH: 200 years: +45 %: 7200 mins: Summer	28.888	28.285	28.292	0.007	0.1	0.002	0.000	0.1	15.204	OK
FEH: 200 years: +45 %: 7200 mins: Winter	28.888	28.285	28.290	0.005	0.1	0.002	0.000	0.1	15.732	OK
FEH: 200 years: +45 %: 8640 mins: Summer	28.888	28.285	28.292	0.007	0.1	0.002	0.000	0.1	15.978	OK
FEH: 200 years: +45 %: 8640 mins: Winter	28.888	28.285	28.290	0.005	0.1	0.001	0.000	0.1	16.074	OK
FEH: 200 years: +45 %: 10080 mins: Summer	28.888	28.285	28.291	0.006	0.1	0.002	0.000	0.1	16.698	OK

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FEH: 200 years: +45 %: 10080 mins: Winter											
28.	28.	28.2	0.00	0.1	0.001	0.000	0.1	16.698	OK		
888	285	90	5								

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FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S11-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.558	26.758	27.218	0.460	66.8	0.520	0.000	61.5	31.850	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	28.558	26.758	27.160	0.402	62.1	0.454	0.000	56.6	31.862	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	28.558	26.758	27.018	0.260	48.7	0.294	0.000	48.5	41.878	OK
FEH: 200 years: +45 %: 30 mins: Winter	28.558	26.758	26.985	0.227	45.7	0.257	0.000	45.6	41.902	OK
FEH: 200 years: +45 %: 60 mins: Summer	28.558	26.758	26.995	0.237	42.6	0.268	0.000	42.5	51.664	OK
FEH: 200 years: +45 %: 60 mins: Winter	28.558	26.758	26.995	0.237	34.2	0.268	0.000	34.2	51.599	OK
FEH: 200 years: +45 %: 120 mins: Summer	28.558	26.758	27.097	0.339	29.1	0.383	0.000	29.2	59.193	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	28.558	26.758	27.097	0.339	21.0	0.383	0.000	21.0	59.170	Surcharged

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FEH: 200 years: +45 %: 180 mins: Summer	28. 558	26. 758	27.1 64	0.40 6	22.5	0.460	0.000	22.5	64.692	Surchar ged
FEH: 200 years: +45 %: 180 mins: Winter	28. 558	26. 758	27.1 65	0.40 7	15.5	0.460	0.000	15.5	64.565	Surchar ged
FEH: 200 years: +45 %: 240 mins: Summer	28. 558	26. 758	27.2 17	0.45 9	18.6	0.519	0.000	18.6	69.097	Surchar ged
FEH: 200 years: +45 %: 240 mins: Winter	28. 558	26. 758	27.2 18	0.46 0	12.5	0.520	0.000	12.5	68.972	Surchar ged
FEH: 200 years: +45 %: 360 mins: Summer	28. 558	26. 758	27.2 97	0.53 9	14.0	0.610	0.000	13.8	76.177	Surchar ged
FEH: 200 years: +45 %: 360 mins: Winter	28. 558	26. 758	27.2 98	0.54 0	9.2	0.611	0.000	9.2	76.154	Surchar ged
FEH: 200 years: +45 %: 480 mins: Summer	28. 558	26. 758	27.3 57	0.59 9	11.5	0.677	0.000	11.4	81.946	Surchar ged
FEH: 200 years: +45 %: 480 mins: Winter	28. 558	26. 758	27.3 58	0.60 0	7.5	0.679	0.000	7.3	81.935	Surchar ged
FEH: 200 years: +45 %: 600 mins: Summer	28. 558	26. 758	27.4 03	0.64 5	9.8	0.730	0.000	9.0	86.857	Surchar ged
FEH: 200 years: +45 %: 600 mins: Winter	28. 558	26. 758	27.4 06	0.64 8	6.3	0.732	0.000	6.1	86.861	Surchar ged

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FEH: 200 years: +45 %: 720 mins: Summer	28. 558	26. 758	27.4 42	0.68 4	8.6	0.773	0.000	7.7	91.216	Surcharged
FEH: 200 years: +45 %: 720 mins: Winter	28. 558	26. 758	27.4 44	0.68 6	5.5	0.776	0.000	5.3	91.155	Surcharged
FEH: 200 years: +45 %: 960 mins: Summer	28. 558	26. 758	27.4 99	0.74 1	6.9	0.838	0.000	6.1	98.565	Surcharged
FEH: 200 years: +45 %: 960 mins: Winter	28. 558	26. 758	27.5 03	0.74 5	4.5	0.842	0.000	4.2	98.561	Surcharged
FEH: 200 years: +45 %: 1440 mins: Summer	28. 558	26. 758	27.5 67	0.80 9	5.1	0.915	0.000	4.7	110.14 6	Surcharged
FEH: 200 years: +45 %: 1440 mins: Winter	28. 558	26. 758	27.5 74	0.81 6	3.3	0.923	0.000	3.0	110.09 0	Surcharged
FEH: 200 years: +45 %: 2160 mins: Summer	28. 558	26. 758	27.6 04	0.84 6	3.8	0.957	0.000	3.6	123.03 1	Surcharged
FEH: 200 years: +45 %: 2160 mins: Winter	28. 558	26. 758	27.6 17	0.85 9	2.5	0.972	0.000	2.3	122.96 9	Surcharged
FEH: 200 years: +45 %: 2880 mins: Summer	28. 558	26. 758	27.6 07	0.84 9	3.1	0.960	0.000	2.9	133.40 1	Surcharged
FEH: 200 years: +45 %: 2880 mins: Winter	28. 558	26. 758	27.6 24	0.86 6	2.0	0.979	0.000	1.9	133.43 4	Surcharged

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FEH: 200 years: +45 %: 4320 mins: Summer	28. 558	26. 758	27.5 94	0.83 6	2.3	0.946	0.000	2.1	150.45 7	Surcha rged
FEH: 200 years: +45 %: 4320 mins: Winter	28. 558	26. 758	27.6 00	0.84 2	1.5	0.952	0.000	1.4	150.64 7	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Summer	28. 558	26. 758	27.5 79	0.82 1	1.9	0.928	0.000	1.7	162.84 3	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Winter	28. 558	26. 758	27.5 73	0.81 5	1.2	0.922	0.000	1.1	162.77 4	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Summer	28. 558	26. 758	27.5 61	0.80 3	1.6	0.908	0.000	1.5	173.30 2	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Winter	28. 558	26. 758	27.5 43	0.78 5	1.0	0.888	0.000	1.0	173.46 9	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Summer	28. 558	26. 758	27.5 45	0.78 7	1.4	0.890	0.000	1.3	183.66 8	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Winter	28. 558	26. 758	27.5 13	0.75 5	0.9	0.854	0.000	0.8	183.37 9	Surcha rged
FEH: 200 years: +45 %: 10080 mins: Summer	28. 558	26. 758	27.5 32	0.77 4	1.3	0.875	0.000	1.2	192.75 0	Surcha rged

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FEH: 200 years: +45 %: 10080 mins: Winter											
28.	26.	27.4	0.72	0.8	0.820	0.000	0.8	192.83	Surcha		
558	758	83	5					9	rged		
mins: Winter											

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FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S13-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.754	26.941	27.463	0.522	72.9	0.590	0.000	67.8	31.330	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	28.754	26.941	27.380	0.439	68.4	0.496	0.000	64.1	31.357	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	28.754	26.941	27.112	0.171	48.4	0.193	0.000	48.4	41.723	OK
FEH: 200 years: +45 %: 30 mins: Winter	28.754	26.941	27.103	0.162	45.5	0.184	0.000	45.5	41.753	OK
FEH: 200 years: +45 %: 60 mins: Summer	28.754	26.941	27.095	0.154	42.3	0.174	0.000	42.3	52.631	OK
FEH: 200 years: +45 %: 60 mins: Winter	28.754	26.941	27.073	0.132	34.0	0.149	0.000	34.0	52.618	OK
FEH: 200 years: +45 %: 120 mins: Summer	28.754	26.941	27.097	0.156	29.0	0.176	0.000	29.0	60.545	OK
FEH: 200 years: +45 %: 120 mins: Winter	28.754	26.941	27.097	0.156	20.9	0.176	0.000	20.9	60.539	OK

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FEH: 200 years: +45 %: 180 mins: Summer	28. 754	26. 941	27.1 64	0.22 3	22.4	0.253	0.000	22.4	66.089	OK
FEH: 200 years: +45 %: 180 mins: Winter	28. 754	26. 941	27.1 65	0.22 4	15.4	0.253	0.000	15.4	66.108	OK
FEH: 200 years: +45 %: 240 mins: Summer	28. 754	26. 941	27.2 17	0.27 6	18.5	0.312	0.000	18.5	70.581	Surchar ged
FEH: 200 years: +45 %: 240 mins: Winter	28. 754	26. 941	27.2 18	0.27 7	12.4	0.313	0.000	12.4	70.614	Surchar ged
FEH: 200 years: +45 %: 360 mins: Summer	28. 754	26. 941	27.2 97	0.35 6	13.9	0.403	0.000	13.9	77.853	Surchar ged
FEH: 200 years: +45 %: 360 mins: Winter	28. 754	26. 941	27.2 98	0.35 7	9.2	0.404	0.000	9.2	77.862	Surchar ged
FEH: 200 years: +45 %: 480 mins: Summer	28. 754	26. 941	27.3 57	0.41 6	11.5	0.470	0.000	11.5	83.683	Surchar ged
FEH: 200 years: +45 %: 480 mins: Winter	28. 754	26. 941	27.3 58	0.41 7	7.4	0.472	0.000	7.4	83.711	Surchar ged
FEH: 200 years: +45 %: 600 mins: Summer	28. 754	26. 941	27.4 03	0.46 2	9.7	0.523	0.000	9.7	88.622	Surchar ged
FEH: 200 years: +45 %: 600 mins: Winter	28. 754	26. 941	27.4 06	0.46 5	6.3	0.526	0.000	6.3	88.647	Surchar ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 200 years: +45 %: 720 mins: Summer	28. 754	26. 941	27.4 41	0.50 0	8.5	0.566	0.000	8.5	92.975	Surcharged
FEH: 200 years: +45 %: 720 mins: Winter	28. 754	26. 941	27.4 44	0.50 3	5.5	0.569	0.000	5.5	92.956	Surcharged
FEH: 200 years: +45 %: 960 mins: Summer	28. 754	26. 941	27.4 98	0.55 7	6.9	0.631	0.000	6.9	100.286	Surcharged
FEH: 200 years: +45 %: 960 mins: Winter	28. 754	26. 941	27.5 03	0.56 2	4.4	0.635	0.000	4.4	100.319	Surcharged
FEH: 200 years: +45 %: 1440 mins: Summer	28. 754	26. 941	27.5 67	0.62 6	5.1	0.708	0.000	5.1	111.836	Surcharged
FEH: 200 years: +45 %: 1440 mins: Winter	28. 754	26. 941	27.5 74	0.63 3	3.3	0.716	0.000	3.3	111.780	Surcharged
FEH: 200 years: +45 %: 2160 mins: Summer	28. 754	26. 941	27.6 04	0.66 3	3.8	0.750	0.000	3.8	124.475	Surcharged
FEH: 200 years: +45 %: 2160 mins: Winter	28. 754	26. 941	27.6 17	0.67 6	2.4	0.765	0.000	2.4	124.500	Surcharged
FEH: 200 years: +45 %: 2880 mins: Summer	28. 754	26. 941	27.6 07	0.66 6	3.1	0.753	0.000	3.1	134.490	Surcharged
FEH: 200 years: +45 %: 2880 mins: Winter	28. 754	26. 941	27.6 24	0.68 3	2.0	0.772	0.000	2.0	134.486	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	28.754	26.941	27.594	0.653	2.3	0.739	0.000	2.3	149.605	Surcharged
FEH: 200 years: +45 %: 4320 mins: Winter	28.754	26.941	27.600	0.659	1.5	0.745	0.000	1.4	149.704	Surcharged
FEH: 200 years: +45 %: 5760 mins: Summer	28.754	26.941	27.579	0.638	1.8	0.721	0.000	1.8	161.808	Surcharged
FEH: 200 years: +45 %: 5760 mins: Winter	28.754	26.941	27.573	0.632	1.2	0.715	0.000	1.2	161.898	Surcharged
FEH: 200 years: +45 %: 7200 mins: Summer	28.754	26.941	27.561	0.620	1.6	0.701	0.000	1.6	172.534	Surcharged
FEH: 200 years: +45 %: 7200 mins: Winter	28.754	26.941	27.543	0.602	1.0	0.681	0.000	1.0	172.621	Surcharged
FEH: 200 years: +45 %: 8640 mins: Summer	28.754	26.941	27.545	0.604	1.4	0.683	0.000	1.4	182.052	Surcharged
FEH: 200 years: +45 %: 8640 mins: Winter	28.754	26.941	27.513	0.572	0.9	0.647	0.000	0.9	182.768	Surcharged
FEH: 200 years: +45 %: 10080 mins: Summer	28.754	26.941	27.532	0.591	1.2	0.668	0.000	1.2	191.478	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments					Date: 17/07/2026						
					Designed AMG		Checked by:		Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5					Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						
FEH: 200 years: +45 %: 10080 mins: Winter											
28.	26.	27.4	0.54	0.8	0.613	0.000	0.8	191.59	Surcha		
754	941	83	2					5	rged		
mins: Winter											

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S10-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.560	26.606	27.031	0.425	61.5	0.481	0.000	58.3	31.138	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	28.560	26.606	26.997	0.391	56.6	0.442	0.000	52.5	31.150	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	28.560	26.606	26.924	0.318	48.5	0.360	0.000	48.4	39.862	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	28.560	26.606	26.901	0.296	45.6	0.335	0.000	45.5	39.900	OK
FEH: 200 years: +45 %: 60 mins: Summer	28.560	26.606	26.995	0.389	42.5	0.440	0.000	42.5	48.843	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	28.560	26.606	26.995	0.389	34.2	0.440	0.000	34.2	48.717	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	28.560	26.606	27.096	0.491	29.2	0.555	0.000	29.2	56.006	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	28.560	26.606	27.097	0.491	21.0	0.555	0.000	20.2	55.977	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 200 years: +45 %: 180 mins: Summer	28. 560	26. 606	27.1 64	0.55 9	22.5	0.632	0.000	20.9	61.441	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	28. 560	26. 606	27.1 65	0.55 9	15.5	0.632	0.000	14.1	61.280	Surcharged
FEH: 200 years: +45 %: 240 mins: Summer	28. 560	26. 606	27.2 17	0.61 1	18.6	0.691	0.000	16.4	65.787	Surcharged
FEH: 200 years: +45 %: 240 mins: Winter	28. 560	26. 606	27.2 17	0.61 2	12.5	0.692	0.000	11.2	65.634	Surcharged
FEH: 200 years: +45 %: 360 mins: Summer	28. 560	26. 606	27.2 97	0.69 2	13.8	0.782	0.000	12.0	72.776	Surcharged
FEH: 200 years: +45 %: 360 mins: Winter	28. 560	26. 606	27.2 98	0.69 2	9.2	0.783	0.000	8.0	72.756	Surcharged
FEH: 200 years: +45 %: 480 mins: Summer	28. 560	26. 606	27.3 57	0.75 1	11.4	0.849	0.000	9.8	78.504	Surcharged
FEH: 200 years: +45 %: 480 mins: Winter	28. 560	26. 606	27.3 58	0.75 2	7.3	0.851	0.000	6.3	78.499	Surcharged
FEH: 200 years: +45 %: 600 mins: Summer	28. 560	26. 606	27.4 03	0.79 8	9.0	0.902	0.000	7.8	83.395	Surcharged
FEH: 200 years: +45 %: 600 mins: Winter	28. 560	26. 606	27.4 05	0.80 0	6.1	0.904	0.000	5.3	83.404	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 720 mins: Summer	28. 560	26. 606	27.4 41	0.83 6	7.7	0.945	0.000	6.8	87.740	Surchar ged
FEH: 200 years: +45 %: 720 mins: Winter	28. 560	26. 606	27.4 44	0.83 8	5.3	0.948	0.000	4.6	87.688	Surchar ged
FEH: 200 years: +45 %: 960 mins: Summer	28. 560	26. 606	27.4 98	0.89 3	6.1	1.010	0.000	5.7	95.092	Surchar ged
FEH: 200 years: +45 %: 960 mins: Winter	28. 560	26. 606	27.5 02	0.89 7	4.2	1.014	0.000	3.8	95.094	Surchar ged
FEH: 200 years: +45 %: 1440 mins: Summer	28. 560	26. 606	27.5 67	0.96 1	4.7	1.087	0.000	4.6	106.72 6	Surchar ged
FEH: 200 years: +45 %: 1440 mins: Winter	28. 560	26. 606	27.5 73	0.96 8	3.0	1.095	0.000	2.9	106.67 5	Surchar ged
FEH: 200 years: +45 %: 2160 mins: Summer	28. 560	26. 606	27.6 04	0.99 8	3.6	1.129	0.000	3.5	119.75 4	Surchar ged
FEH: 200 years: +45 %: 2160 mins: Winter	28. 560	26. 606	27.6 17	1.01 1	2.3	1.144	0.000	2.2	119.69 5	Surchar ged
FEH: 200 years: +45 %: 2880 mins: Summer	28. 560	26. 606	27.6 06	1.00 1	2.9	1.132	0.000	2.8	130.33 5	Surchar ged
FEH: 200 years: +45 %: 2880 mins: Winter	28. 560	26. 606	27.6 23	1.01 8	1.9	1.151	0.000	1.8	130.36 9	Surchar ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	28. 560	26. 606	27.5 94	0.98 8	2.1	1.118	0.000	2.1	149.56 3	Surcha rged
FEH: 200 years: +45 %: 4320 mins: Winter	28. 560	26. 606	27.5 99	0.99 4	1.4	1.124	0.000	1.4	149.71 7	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Summer	28. 560	26. 606	27.5 78	0.97 2	1.7	1.100	0.000	1.7	162.79 0	Surcha rged
FEH: 200 years: +45 %: 5760 mins: Winter	28. 560	26. 606	27.5 73	0.96 7	1.1	1.094	0.000	1.1	162.72 9	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Summer	28. 560	26. 606	27.5 60	0.95 5	1.5	1.080	0.000	1.4	173.25 3	Surcha rged
FEH: 200 years: +45 %: 7200 mins: Winter	28. 560	26. 606	27.5 43	0.93 7	1.0	1.060	0.000	0.9	173.42 6	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Summer	28. 560	26. 606	27.5 45	0.93 9	1.3	1.062	0.000	1.3	183.62 1	Surcha rged
FEH: 200 years: +45 %: 8640 mins: Winter	28. 560	26. 606	27.5 13	0.90 7	0.8	1.026	0.000	0.8	183.33 8	Surcha rged
FEH: 200 years: +45 %: 10080 mins: Summer	28. 560	26. 606	27.5 31	0.92 6	1.2	1.047	0.000	1.2	192.70 4	Surcha rged

Drainage Network Unit 5: Alchemy,Western Plot Network Space Developments					Date: 17/07/2026						
					Designed AMG		Checked by:		Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5					Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						
FEH: 200 years: +45 %: 10080 mins: Winter											
28.	26.	27.4	0.87	0.8	0.992	0.000	0.7	192.80	Surcha		
560	606	83	7					0	rged		

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S09-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.846	26.558	26.968	0.410	126.1	0.464	0.000	123.9	62.313	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	28.846	26.558	26.943	0.385	116.6	0.436	0.000	114.2	62.319	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	28.846	26.558	26.885	0.327	96.9	0.370	0.000	96.8	80.257	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	28.846	26.558	26.866	0.308	91.0	0.349	0.000	91.0	80.311	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	28.846	26.558	26.996	0.438	84.8	0.495	0.000	84.8	99.692	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	28.846	26.558	26.996	0.438	68.3	0.495	0.000	68.2	99.549	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	28.846	26.558	27.097	0.539	58.1	0.610	0.000	57.9	114.607	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	28.846	26.558	27.097	0.539	41.0	0.610	0.000	40.7	114.557	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 200 years: +45 %: 180 mins: Summer	28. 846	26. 558	27.1 65	0.60 7	43.1	0.686	0.000	42.6	125.50 9	Surchar ged
FEH: 200 years: +45 %: 180 mins: Winter	28. 846	26. 558	27.1 65	0.60 7	29.4	0.687	0.000	28.6	125.36 7	Surchar ged
FEH: 200 years: +45 %: 240 mins: Summer	28. 846	26. 558	27.2 17	0.65 9	34.9	0.746	0.000	33.7	134.31 3	Surchar ged
FEH: 200 years: +45 %: 240 mins: Winter	28. 846	26. 558	27.2 18	0.66 0	23.6	0.746	0.000	22.7	134.16 7	Surchar ged
FEH: 200 years: +45 %: 360 mins: Summer	28. 846	26. 558	27.2 98	0.74 0	25.9	0.836	0.000	24.7	148.48 8	Surchar ged
FEH: 200 years: +45 %: 360 mins: Winter	28. 846	26. 558	27.2 98	0.74 0	17.1	0.837	0.000	16.4	148.44 6	Surchar ged
FEH: 200 years: +45 %: 480 mins: Summer	28. 846	26. 558	27.3 57	0.79 9	21.3	0.904	0.000	20.3	159.98 7	Surchar ged
FEH: 200 years: +45 %: 480 mins: Winter	28. 846	26. 558	27.3 58	0.80 0	13.7	0.905	0.000	13.1	159.99 0	Surchar ged
FEH: 200 years: +45 %: 600 mins: Summer	28. 846	26. 558	27.4 03	0.84 6	17.5	0.956	0.000	17.1	169.78 2	Surchar ged
FEH: 200 years: +45 %: 600 mins: Winter	28. 846	26. 558	27.4 06	0.84 8	11.4	0.959	0.000	11.0	169.79 9	Surchar ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 720 mins: Summer	28. 846	26. 558	27.4 42	0.88 4	15.3	0.999	0.000	15.0	178.45 6	Surcha rged
FEH: 200 years: +45 %: 720 mins: Winter	28. 846	26. 558	27.4 44	0.88 6	9.9	1.002	0.000	9.7	178.37 3	Surcha rged
FEH: 200 years: +45 %: 960 mins: Summer	28. 846	26. 558	27.4 99	0.94 1	12.6	1.064	0.000	12.3	193.10 9	Surcha rged
FEH: 200 years: +45 %: 960 mins: Winter	28. 846	26. 558	27.5 03	0.94 5	8.1	1.068	0.000	8.0	193.12 9	Surcha rged
FEH: 200 years: +45 %: 1440 mins: Summer	28. 846	26. 558	27.5 67	1.00 9	9.5	1.141	0.000	9.4	216.32 3	Surcha rged
FEH: 200 years: +45 %: 1440 mins: Winter	28. 846	26. 558	27.5 74	1.01 6	6.2	1.149	0.000	6.1	216.20 5	Surcha rged
FEH: 200 years: +45 %: 2160 mins: Summer	28. 846	26. 558	27.6 04	1.04 6	7.1	1.183	0.000	7.1	242.11 3	Surcha rged
FEH: 200 years: +45 %: 2160 mins: Winter	28. 846	26. 558	27.6 17	1.05 9	4.6	1.198	0.000	4.5	242.06 8	Surcha rged
FEH: 200 years: +45 %: 2880 mins: Summer	28. 846	26. 558	27.6 07	1.04 9	5.8	1.186	0.000	5.7	262.87 5	Surcha rged
FEH: 200 years: +45 %: 2880 mins: Winter	28. 846	26. 558	27.6 24	1.06 6	3.7	1.205	0.000	3.7	262.89 6	Surcha rged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	28.846	26.558	27.594	1.036	4.3	1.172	0.000	4.2	298.480	Surcharged
FEH: 200 years: +45 %: 4320 mins: Winter	28.846	26.558	27.600	1.042	2.8	1.178	0.000	2.7	298.701	Surcharged
FEH: 200 years: +45 %: 5760 mins: Summer	28.846	26.558	27.578	1.020	3.5	1.154	0.000	3.5	324.597	Surcharged
FEH: 200 years: +45 %: 5760 mins: Winter	28.846	26.558	27.573	1.015	2.2	1.149	0.000	2.2	324.622	Surcharged
FEH: 200 years: +45 %: 7200 mins: Summer	28.846	26.558	27.561	1.003	3.0	1.134	0.000	2.9	345.785	Surcharged
FEH: 200 years: +45 %: 7200 mins: Winter	28.846	26.558	27.543	0.985	1.9	1.114	0.000	1.9	346.042	Surcharged
FEH: 200 years: +45 %: 8640 mins: Summer	28.846	26.558	27.545	0.987	2.6	1.116	0.000	2.6	365.670	Surcharged
FEH: 200 years: +45 %: 8640 mins: Winter	28.846	26.558	27.513	0.955	1.7	1.080	0.000	1.7	366.100	Surcharged
FEH: 200 years: +45 %: 10080 mins: Summer	28.846	26.558	27.532	0.974	2.4	1.101	0.000	2.3	384.179	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments					Date: 17/07/2026							
					Designed AMG		Checked by:		Approved			
					Report Details: Type: Junctions Summary Storm Phase: UNIT 5							
					Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG							
FEH: 200 years: +45 %: 10080 mins: Winter												
28.	26.	27.4	0.92	1.5	1.046	0.000	1.5	384.38	Surcharged			
846	558	83	5					8				

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for S07-5: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
FEH: 200 years: +45 %: 15 mins: Summer	28.888	27.792	28.260	0.468	79.5	0.132	0.000	62.8	34.738	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	28.888	27.792	28.156	0.364	74.6	0.103	0.000	53.9	34.726	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	28.888	27.792	28.002	0.210	53.0	0.059	0.000	53.0	45.937	OK
FEH: 200 years: +45 %: 30 mins: Winter	28.888	27.792	27.990	0.198	49.8	0.056	0.000	49.8	45.937	OK
FEH: 200 years: +45 %: 60 mins: Summer	28.888	27.792	27.979	0.187	46.3	0.053	0.000	46.3	57.897	OK
FEH: 200 years: +45 %: 60 mins: Winter	28.888	27.792	27.952	0.160	37.3	0.045	0.000	37.3	57.897	OK
FEH: 200 years: +45 %: 120 mins: Summer	28.888	27.792	27.936	0.144	31.7	0.041	0.000	31.7	66.874	OK
FEH: 200 years: +45 %: 120 mins: Winter	28.888	27.792	27.910	0.118	22.8	0.033	0.000	22.8	66.868	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 180 mins: Summer	28. 888	27. 792	27.9 15	0.12 3	24.5	0.035	0.000	24.5	73.120	OK
FEH: 200 years: +45 %: 180 mins: Winter	28. 888	27. 792	27.8 92	0.10 0	16.9	0.028	0.000	16.9	73.109	OK
FEH: 200 years: +45 %: 240 mins: Summer	28. 888	27. 792	27.9 02	0.11 0	20.2	0.031	0.000	20.2	78.101	OK
FEH: 200 years: +45 %: 240 mins: Winter	28. 888	27. 792	27.8 81	0.08 9	13.6	0.025	0.000	13.6	78.119	OK
FEH: 200 years: +45 %: 360 mins: Summer	28. 888	27. 792	27.8 86	0.09 4	15.2	0.027	0.000	15.2	86.105	OK
FEH: 200 years: +45 %: 360 mins: Winter	28. 888	27. 792	27.8 68	0.07 6	10.0	0.022	0.000	10.0	86.106	OK
FEH: 200 years: +45 %: 480 mins: Summer	28. 888	27. 792	27.8 77	0.08 5	12.5	0.024	0.000	12.5	92.507	OK
FEH: 200 years: +45 %: 480 mins: Winter	28. 888	27. 792	27.8 60	0.06 8	8.1	0.019	0.000	8.1	92.508	OK
FEH: 200 years: +45 %: 600 mins: Summer	28. 888	27. 792	27.8 70	0.07 8	10.7	0.022	0.000	10.7	97.889	OK
FEH: 200 years: +45 %: 600 mins: Winter	28. 888	27. 792	27.8 55	0.06 3	6.9	0.018	0.000	6.9	97.926	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 720 mins: Summer	28. 888	27. 792	27.8 65	0.07 3	9.3	0.021	0.000	9.3	102.65 9	OK
FEH: 200 years: +45 %: 720 mins: Winter	28. 888	27. 792	27.8 51	0.05 9	6.0	0.017	0.000	6.0	102.67 2	OK
FEH: 200 years: +45 %: 960 mins: Summer	28. 888	27. 792	27.8 58	0.06 6	7.5	0.019	0.000	7.5	110.68 1	OK
FEH: 200 years: +45 %: 960 mins: Winter	28. 888	27. 792	27.8 45	0.05 3	4.9	0.015	0.000	4.9	110.71 1	OK
FEH: 200 years: +45 %: 1440 mins: Summer	28. 888	27. 792	27.8 49	0.05 7	5.6	0.016	0.000	5.6	123.23 3	OK
FEH: 200 years: +45 %: 1440 mins: Winter	28. 888	27. 792	27.8 38	0.04 6	3.6	0.013	0.000	3.6	123.13 7	OK
FEH: 200 years: +45 %: 2160 mins: Summer	28. 888	27. 792	27.8 41	0.04 9	4.1	0.014	0.000	4.1	136.91 9	OK
FEH: 200 years: +45 %: 2160 mins: Winter	28. 888	27. 792	27.8 31	0.04 0	2.7	0.011	0.000	2.7	136.88 9	OK
FEH: 200 years: +45 %: 2880 mins: Summer	28. 888	27. 792	27.8 36	0.04 4	3.3	0.013	0.000	3.3	147.41 9	OK
FEH: 200 years: +45 %: 2880 mins: Winter	28. 888	27. 792	27.8 28	0.03 6	2.2	0.010	0.000	2.2	147.43 7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	28.888	27.792	27.830	0.038	2.5	0.011	0.000	2.5	163.859	OK
FEH: 200 years: +45 %: 4320 mins: Winter	28.888	27.792	27.823	0.031	1.6	0.009	0.000	1.6	163.907	OK
FEH: 200 years: +45 %: 5760 mins: Summer	28.888	27.792	27.826	0.035	2.0	0.010	0.000	2.0	177.354	OK
FEH: 200 years: +45 %: 5760 mins: Winter	28.888	27.792	27.820	0.028	1.3	0.008	0.000	1.3	177.245	OK
FEH: 200 years: +45 %: 7200 mins: Summer	28.888	27.792	27.824	0.032	1.7	0.009	0.000	1.7	188.448	OK
FEH: 200 years: +45 %: 7200 mins: Winter	28.888	27.792	27.818	0.026	1.1	0.007	0.000	1.1	189.066	OK
FEH: 200 years: +45 %: 8640 mins: Summer	28.888	27.792	27.822	0.030	1.5	0.009	0.000	1.5	199.296	OK
FEH: 200 years: +45 %: 8640 mins: Winter	28.888	27.792	27.816	0.025	1.0	0.007	0.000	1.0	199.398	OK
FEH: 200 years: +45 %: 10080 mins: Summer	28.888	27.792	27.821	0.029	1.4	0.008	0.000	1.4	209.394	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments					Date: 17/07/2026							
					Designed AMG		Checked by:		Approved			
					Report Details: Type: Junctions Summary Storm Phase: UNIT 5							
					Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG							
FEH: 200 years: +45 %: 10080 mins: Winter												
28.	27.	27.8	0.02	0.9	0.007	0.000	0.9	209.26	OK			
888	792	15	3					2				

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S01- 5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S03 - 5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S02 - 5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S04- 5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S12-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S06 - 5 : Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S14 - 5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
EX : Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S03-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S08-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S11-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S13-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S10-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S09-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Junctions Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for
S07-5: Rank By: Max. Depth**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 2 years: Increase Rainfall (%): +0: Summary
Results for Tank: Rank By: Max. Avg. Depth**

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. 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 (%)
FEH: 2 years: +0 %: 15 mins: Summer	26.379	26.379	26.379	0.109	0.109	0.109	134.2	69.018	0.000	0.000	1.8	2.148	92.249
FEH: 2 years: +0 %: 15 mins: Winter	26.379	26.379	26.379	0.109	0.109	0.109	128.2	69.016	0.000	0.000	1.8	2.148	92.249
FEH: 2 years: +0 %: 30 mins: Summer	26.408	26.408	26.408	0.138	0.138	0.138	105.1	87.925	0.000	0.000	2.0	5.191	90.126
FEH: 2 years: +0 %: 30 mins: Winter	26.408	26.408	26.408	0.138	0.138	0.138	98.6	87.908	0.000	0.000	2.0	5.196	90.127
FEH: 2 years: +0 %: 60 mins: Summer	26.439	26.439	26.439	0.169	0.169	0.169	90.4	107.524	0.000	0.000	2.1	11.417	87.925

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 60 mins: Winter	26.4 39	26.4 39	26.4 39	0.16 9	0.1 69	0.16 9	72.7	107. 612	0.0 00	0.00 0	2.1	11.4 53	87.915
FEH: 2 years: +0 %: 120 mins: Summer	26.4 83	26.4 83	26.4 83	0.21 3	0.2 13	0.21 3	69.2	135. 528	0.0 00	0.00 0	2.2	24.6 49	84.780
FEH: 2 years: +0 %: 120 mins: Winter	26.4 83	26.4 83	26.4 83	0.21 3	0.2 13	0.21 3	49.8	135. 547	0.0 00	0.00 0	2.2	24.7 81	84.777
FEH: 2 years: +0 %: 180 mins: Summer	26.5 09	26.5 09	26.5 09	0.23 9	0.2 39	0.23 9	56.1	151. 880	0.0 00	0.00 0	2.2	38.0 84	82.943
FEH: 2 years: +0 %: 180 mins: Winter	26.5 09	26.5 09	26.5 09	0.23 9	0.2 39	0.23 9	38.7	151. 850	0.0 00	0.00 0	2.2	38.3 18	82.946
FEH: 2 years: +0 %: 240 mins: Summer	26.5 26	26.5 26	26.5 26	0.25 6	0.2 56	0.25 6	47.7	162. 955	0.0 00	0.00 0	2.2	51.6 23	81.699
FEH: 2 years: +0 %: 240 mins: Winter	26.5 26	26.5 26	26.5 26	0.25 6	0.2 56	0.25 6	32.1	163. 078	0.0 00	0.00 0	2.2	51.9 60	81.686
FEH: 2 years: +0 %: 360 mins: Summer	26.5 48	26.5 48	26.5 48	0.27 8	0.2 78	0.27 8	37.0	177. 022	0.0 00	0.00 0	2.3	78.7 29	80.120

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 2 years: +0 %: 360 mins: Winter	26.5 49	26.5 49	26.5 49	0.27 9	0.2 79	0.27 9	24.4	177. 349	0.0 00	0.00 0	2.3	79.2 65	80.083
FEH: 2 years: +0 %: 480 mins: Summer	26.5 62	26.5 62	26.5 62	0.29 2	0.2 92	0.29 2	31.0	185. 513	0.0 00	0.00 0	2.3	105. 739	79.166
FEH: 2 years: +0 %: 480 mins: Winter	26.5 62	26.5 62	26.5 62	0.29 2	0.2 92	0.29 2	20.1	185. 886	0.0 00	0.00 0	2.3	106. 458	79.124
FEH: 2 years: +0 %: 600 mins: Summer	26.5 70	26.5 70	26.5 70	0.30 0	0.3 00	0.30 0	26.6	190. 495	0.0 00	0.00 0	2.3	132. 542	78.607
FEH: 2 years: +0 %: 600 mins: Winter	26.5 71	26.5 71	26.5 71	0.30 1	0.3 01	0.30 1	17.2	191. 136	0.0 00	0.00 0	2.3	133. 426	78.535
FEH: 2 years: +0 %: 720 mins: Summer	26.5 75	26.5 75	26.5 75	0.30 5	0.3 05	0.30 5	23.4	193. 963	0.0 00	0.00 0	2.3	158. 893	78.217
FEH: 2 years: +0 %: 720 mins: Winter	26.5 76	26.5 76	26.5 76	0.30 6	0.3 06	0.30 6	15.1	194. 333	0.0 00	0.00 0	2.3	159. 984	78.175
FEH: 2 years: +0 %: 960 mins: Summer	26.5 83	26.5 83	26.5 83	0.31 3	0.3 13	0.31 3	19.2	198. 797	0.0 00	0.00 0	2.3	209. 541	77.674

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 2 years: +0 %: 960 mins: Winter	26.5 80	26.5 80	26.5 80	0.31 0	0.3 10	0.31 0	12.4	197. 372	0.0 00	0.00 0	2.3	210. 911	77.834
FEH: 2 years: +0 %: 1440 mins: Summer	26.5 90	26.5 90	26.5 90	0.32 0	0.3 20	0.32 0	14.5	203. 584	0.0 00	0.00 0	2.3	287. 555	77.137
FEH: 2 years: +0 %: 1440 mins: Winter	26.5 84	26.5 84	26.5 84	0.31 4	0.3 14	0.31 4	9.3	199. 758	0.0 00	0.00 0	2.3	288. 498	77.566
FEH: 2 years: +0 %: 2160 mins: Summer	26.5 91	26.5 91	26.5 91	0.32 1	0.3 21	0.32 1	10.9	204. 057	0.0 00	0.00 0	2.3	351. 883	77.083
FEH: 2 years: +0 %: 2160 mins: Winter	26.5 77	26.5 77	26.5 77	0.30 7	0.3 07	0.30 7	7.1	195. 378	0.0 00	0.00 0	2.3	352. 220	78.058
FEH: 2 years: +0 %: 2880 mins: Summer	26.5 86	26.5 86	26.5 86	0.31 6	0.3 16	0.31 6	9.0	200. 866	0.0 00	0.00 0	2.3	392. 951	77.442
FEH: 2 years: +0 %: 2880 mins: Winter	26.5 64	26.5 64	26.5 64	0.29 4	0.2 94	0.29 4	5.8	187. 044	0.0 00	0.00 0	2.3	393. 386	78.994
FEH: 2 years: +0 %: 4320 mins: Summer	26.5 71	26.5 71	26.5 71	0.30 1	0.3 01	0.30 1	6.9	191. 718	0.0 00	0.00 0	2.3	453. 882	78.469

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 2 years: +0 %: 4320 mins: Winter	26.5 34	26.5 34	26.5 34	0.26 4	0.2 64	0.26 4	4.4	167. 852	0.0 00	0.00 0	2.3	454. 168	81.149
FEH: 2 years: +0 %: 5760 mins: Summer	26.5 57	26.5 57	26.5 57	0.28 7	0.2 87	0.28 7	5.8	182. 276	0.0 00	0.00 0	2.3	506. 805	79.530
FEH: 2 years: +0 %: 5760 mins: Winter	26.5 06	26.5 06	26.5 06	0.23 6	0.2 36	0.23 6	3.7	149. 922	0.0 00	0.00 0	2.2	504. 640	83.163
FEH: 2 years: +0 %: 7200 mins: Summer	26.5 43	26.5 43	26.5 43	0.27 3	0.2 73	0.27 3	5.0	173. 338	0.0 00	0.00 0	2.3	555. 023	80.533
FEH: 2 years: +0 %: 7200 mins: Winter	26.4 82	26.4 82	26.4 82	0.21 2	0.2 12	0.21 2	3.3	134. 996	0.0 00	0.00 0	2.2	554. 288	84.839
FEH: 2 years: +0 %: 8640 mins: Summer	26.5 29	26.5 29	26.5 29	0.25 9	0.2 59	0.25 9	4.5	164. 654	0.0 00	0.00 0	2.2	599. 448	81.509
FEH: 2 years: +0 %: 8640 mins: Winter	26.4 62	26.4 62	26.4 62	0.19 2	0.1 92	0.19 2	2.9	122. 001	0.0 00	0.00 0	2.1	600. 661	86.299
FEH: 2 years: +0 %: 10080 mins: Summer	26.5 18	26.5 18	26.5 18	0.24 8	0.2 48	0.24 8	4.2	157. 428	0.0 00	0.00 0	2.2	642. 548	82.320

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 2 years: +0 %: 10080 mins: Winter	26.4 44	26.4 44	26.4 44	0.17 4	0.1 74	0.17 4	2.7	110. 627	0.0 00	0.00 0	2.1	641. 871	87.576
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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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**FEH: 30 years: Increase Rainfall (%): +0: Summary
Results for Tank: Rank By: Max. Avg. Depth**

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. 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 (%)
FEH: 30 years: +0 %: 15 mins: Summer	26.489	26.489	26.489	0.219	0.219	0.219	263.0	139.216	0.000	0.000	2.4	3.015	84.365
FEH: 30 years: +0 %: 15 mins: Winter	26.489	26.489	26.489	0.219	0.219	0.219	249.9	139.184	0.000	0.000	2.4	3.026	84.369
FEH: 30 years: +0 %: 30 mins: Summer	26.555	26.555	26.555	0.285	0.285	0.285	212.7	181.005	0.000	0.000	2.5	6.551	79.672
FEH: 30 years: +0 %: 30 mins: Winter	26.555	26.555	26.555	0.285	0.285	0.285	199.4	180.981	0.000	0.000	2.5	6.577	79.675
FEH: 30 years: +0 %: 60 mins: Summer	26.623	26.623	26.623	0.353	0.353	0.353	184.4	224.628	0.000	0.000	2.5	13.512	74.773

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 60 mins: Winter	26.6 23	26.6 23	26.6 23	0.35 3	0.3 53	0.35 3	148. 0	224. 581	0.0 00	0.00 0	2.5	13.6 02	74.779
FEH: 30 years: +0 %: 120 mins: Summer	26.6 77	26.6 77	26.6 77	0.40 7	0.4 07	0.40 7	128. 9	258. 830	0.0 00	0.00 0	2.4	27.3 44	70.932
FEH: 30 years: +0 %: 120 mins: Winter	26.6 77	26.6 77	26.6 77	0.40 7	0.4 07	0.40 7	93.0	258. 805	0.0 00	0.00 0	2.4	27.5 30	70.935
FEH: 30 years: +0 %: 180 mins: Summer	26.7 10	26.7 10	26.7 10	0.44 0	0.4 40	0.44 0	100. 3	279. 775	0.0 00	0.00 0	2.4	41.1 46	68.580
FEH: 30 years: +0 %: 180 mins: Winter	26.7 10	26.7 10	26.7 10	0.44 0	0.4 40	0.44 0	69.2	279. 777	0.0 00	0.00 0	2.4	41.4 22	68.580
FEH: 30 years: +0 %: 240 mins: Summer	26.7 33	26.7 33	26.7 33	0.46 3	0.4 63	0.46 3	83.1	294. 587	0.0 00	0.00 0	2.4	54.9 37	66.916
FEH: 30 years: +0 %: 240 mins: Winter	26.7 33	26.7 33	26.7 33	0.46 3	0.4 63	0.46 3	55.9	294. 483	0.0 00	0.00 0	2.4	55.2 98	66.928
FEH: 30 years: +0 %: 360 mins: Summer	26.7 64	26.7 64	26.7 64	0.49 4	0.4 94	0.49 4	62.5	314. 288	0.0 00	0.00 0	2.4	82.4 71	64.704

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FEH: 30 years: +0 %: 360 mins: Winter	26.7 64	26.7 64	26.7 64	0.49 4	0.4 94	0.49 4	41.1	314. 273	0.0 00	0.00 0	2.3	83.0 04	64.706
FEH: 30 years: +0 %: 480 mins: Summer	26.7 84	26.7 84	26.7 84	0.51 4	0.5 14	0.51 4	51.3	327. 102	0.0 00	0.00 0	2.4	110. 032	63.265
FEH: 30 years: +0 %: 480 mins: Winter	26.7 85	26.7 85	26.7 85	0.51 5	0.5 15	0.51 5	33.2	327. 320	0.0 00	0.00 0	2.3	110. 748	63.240
FEH: 30 years: +0 %: 600 mins: Summer	26.7 98	26.7 98	26.7 98	0.52 8	0.5 28	0.52 8	43.5	335. 923	0.0 00	0.00 0	2.3	137. 641	62.274
FEH: 30 years: +0 %: 600 mins: Winter	26.7 99	26.7 99	26.7 99	0.52 9	0.5 29	0.52 9	28.0	336. 189	0.0 00	0.00 0	2.3	138. 548	62.244
FEH: 30 years: +0 %: 720 mins: Summer	26.8 08	26.8 08	26.8 08	0.53 8	0.5 38	0.53 8	37.9	342. 334	0.0 00	0.00 0	2.3	165. 292	61.554
FEH: 30 years: +0 %: 720 mins: Winter	26.8 09	26.8 09	26.8 09	0.53 9	0.5 39	0.53 9	24.4	342. 565	0.0 00	0.00 0	2.3	166. 408	61.528
FEH: 30 years: +0 %: 960 mins: Summer	26.8 20	26.8 20	26.8 20	0.55 0	0.5 50	0.55 0	30.6	349. 800	0.0 00	0.00 0	2.3	220. 865	60.716

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FEH: 30 years: +0 %: 960 mins: Winter	26.8 21	26.8 21	26.8 21	0.55 1	0.5 51	0.55 1	19.7	350. 276	0.0 00	0.00 0	2.3	222. 432	60.662
FEH: 30 years: +0 %: 1440 mins: Summer	26.8 26	26.8 26	26.8 26	0.55 6	0.5 56	0.55 6	22.6	353. 782	0.0 00	0.00 0	2.3	332. 783	60.269
FEH: 30 years: +0 %: 1440 mins: Winter	26.8 27	26.8 27	26.8 27	0.55 7	0.5 57	0.55 7	14.6	354. 146	0.0 00	0.00 0	2.3	335. 388	60.228
FEH: 30 years: +0 %: 2160 mins: Summer	26.8 25	26.8 25	26.8 25	0.55 5	0.5 55	0.55 5	16.8	353. 234	0.0 00	0.00 0	2.3	492. 042	60.330
FEH: 30 years: +0 %: 2160 mins: Winter	26.8 18	26.8 18	26.8 18	0.54 8	0.5 48	0.54 8	10.8	348. 676	0.0 00	0.00 0	2.3	495. 238	60.842
FEH: 30 years: +0 %: 2880 mins: Summer	26.8 20	26.8 20	26.8 20	0.55 0	0.5 50	0.55 0	13.7	349. 535	0.0 00	0.00 0	2.3	585. 451	60.746
FEH: 30 years: +0 %: 2880 mins: Winter	26.8 06	26.8 06	26.8 06	0.53 6	0.5 36	0.53 6	8.8	341. 197	0.0 00	0.00 0	2.3	586. 624	61.682
FEH: 30 years: +0 %: 4320 mins: Summer	26.8 02	26.8 02	26.8 02	0.53 2	0.5 32	0.53 2	10.3	338. 671	0.0 00	0.00 0	2.3	677. 869	61.966

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FEH: 30 years: +0 %: 4320 mins: Winter	26.7 72	26.7 72	26.7 72	0.50 2	0.5 02	0.50 2	6.6	319. 403	0.0 00	0.00 0	2.3	677. 706	64.130
FEH: 30 years: +0 %: 5760 mins: Summer	26.7 84	26.7 84	26.7 84	0.51 4	0.5 14	0.51 4	8.5	326. 647	0.0 00	0.00 0	2.3	744. 829	63.316
FEH: 30 years: +0 %: 5760 mins: Winter	26.7 34	26.7 34	26.7 34	0.46 4	0.4 64	0.46 4	5.4	295. 108	0.0 00	0.00 0	2.3	745. 694	66.858
FEH: 30 years: +0 %: 7200 mins: Summer	26.7 67	26.7 67	26.7 67	0.49 7	0.4 97	0.49 7	7.3	315. 951	0.0 00	0.00 0	2.3	806. 157	64.517
FEH: 30 years: +0 %: 7200 mins: Winter	26.6 99	26.6 99	26.6 99	0.42 9	0.4 29	0.42 9	4.7	272. 642	0.0 00	0.00 0	2.3	806. 252	69.381
FEH: 30 years: +0 %: 8640 mins: Summer	26.7 48	26.7 48	26.7 48	0.47 8	0.4 78	0.47 8	6.5	304. 047	0.0 00	0.00 0	2.3	862. 039	65.854
FEH: 30 years: +0 %: 8640 mins: Winter	26.6 64	26.6 64	26.6 64	0.39 4	0.3 94	0.39 4	4.2	250. 692	0.0 00	0.00 0	2.3	863. 412	71.846
FEH: 30 years: +0 %: 10080 mins: Summer	26.7 33	26.7 33	26.7 33	0.46 3	0.4 63	0.46 3	6.0	294. 746	0.0 00	0.00 0	2.3	919. 032	66.899

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FEH: 30 years: +0 %: 10080 mins: Winter	26.6 34	26.6 34	26.6 34	0.36 4	0.3 64	0.36 4	3.9	231. 342	0.0 00	0.00 0	2.3	918. 690	74.019
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**FEH: 30 years: Increase Rainfall (%): +40: Summary
Results for Tank: Rank By: Max. Avg. Depth**

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. 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 (%)
FEH: 30 years: +40 %: 15 mins: Summer	26.578	26.578	26.578	0.308	0.308	0.308	369.2	195.729	0.000	0.000	2.7	3.334	78.019
FEH: 30 years: +40 %: 15 mins: Winter	26.578	26.578	26.578	0.308	0.308	0.308	355.4	195.676	0.000	0.000	2.7	3.354	78.025
FEH: 30 years: +40 %: 30 mins: Summer	26.669	26.669	26.669	0.399	0.399	0.399	299.4	254.036	0.000	0.000	2.8	6.934	71.471
FEH: 30 years: +40 %: 30 mins: Winter	26.669	26.669	26.669	0.399	0.399	0.399	281.0	254.015	0.000	0.000	2.7	6.966	71.473
FEH: 30 years: +40 %: 60 mins: Summer	26.764	26.764	26.764	0.494	0.494	0.494	259.8	314.339	0.000	0.000	2.7	13.776	64.698

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FEH: 30 years: +40 %: 60 mins: Winter	26.7 64	26.7 64	26.7 64	0.49 4	0.4 94	0.49 4	208. 5	314. 376	0.0 00	0.00 0	2.6	13.8 59	64.694
FEH: 30 years: +40 %: 120 mins: Summer	26.8 40	26.8 40	26.8 40	0.57 0	0.5 70	0.57 0	180. 3	362. 673	0.0 00	0.00 0	2.6	27.0 37	59.270
FEH: 30 years: +40 %: 120 mins: Winter	26.8 40	26.8 40	26.8 40	0.57 0	0.5 70	0.57 0	130. 0	362. 634	0.0 00	0.00 0	2.5	27.1 46	59.275
FEH: 30 years: +40 %: 180 mins: Summer	26.8 88	26.8 88	26.8 88	0.61 8	0.6 18	0.61 8	140. 0	393. 018	0.0 00	0.00 0	2.5	39.5 13	55.862
FEH: 30 years: +40 %: 180 mins: Winter	26.8 88	26.8 88	26.8 88	0.61 8	0.6 18	0.61 8	96.8	392. 931	0.0 00	0.00 0	2.4	39.5 41	55.872
FEH: 30 years: +40 %: 240 mins: Summer	26.9 23	26.9 23	26.9 23	0.65 3	0.6 53	0.65 3	116. 1	415. 431	0.0 00	0.00 0	2.5	51.0 64	53.345
FEH: 30 years: +40 %: 240 mins: Winter	26.9 23	26.9 23	26.9 23	0.65 3	0.6 53	0.65 3	78.2	415. 318	0.0 00	0.00 0	2.4	51.0 46	53.358

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FEH: 30 years: +40 %: 360 mins: Summer	26.9 73	26.9 73	26.9 73	0.70 3	0.7 03	0.70 3	87.2	447. 266	0.0 00	0.00 0	2.4	74.9 48	49.770
FEH: 30 years: +40 %: 360 mins: Winter	26.9 73	26.9 73	26.9 73	0.70 3	0.7 03	0.70 3	57.3	447. 110	0.0 00	0.00 0	2.4	75.2 39	49.787
FEH: 30 years: +40 %: 480 mins: Summer	27.0 08	27.0 08	27.0 08	0.73 8	0.7 38	0.73 8	71.0	469. 533	0.0 00	0.00 0	2.4	100. 736	47.269
FEH: 30 years: +40 %: 480 mins: Winter	27.0 08	27.0 08	27.0 08	0.73 8	0.7 38	0.73 8	45.9	469. 488	0.0 00	0.00 0	2.3	101. 292	47.274
FEH: 30 years: +40 %: 600 mins: Summer	27.0 34	27.0 34	27.0 34	0.76 4	0.7 64	0.76 4	60.0	486. 042	0.0 00	0.00 0	2.4	127. 056	45.415
FEH: 30 years: +40 %: 600 mins: Winter	27.0 34	27.0 34	27.0 34	0.76 4	0.7 64	0.76 4	38.6	486. 106	0.0 00	0.00 0	2.3	127. 677	45.408
FEH: 30 years: +40 %: 720 mins: Summer	27.0 54	27.0 54	27.0 54	0.78 4	0.7 84	0.78 4	52.1	498. 805	0.0 00	0.00 0	2.4	153. 475	43.982

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FEH: 30 years: +40 %: 720 mins: Winter	27.0 55	27.0 55	27.0 55	0.78 5	0.7 85	0.78 5	33.6	499. 087	0.0 00	0.00 0	2.3	154. 163	43.950
FEH: 30 years: +40 %: 960 mins: Summer	27.0 83	27.0 83	27.0 83	0.81 3	0.8 13	0.81 3	41.9	516. 860	0.0 00	0.00 0	2.3	206. 316	41.954
FEH: 30 years: +40 %: 960 mins: Winter	27.0 84	27.0 84	27.0 84	0.81 4	0.8 14	0.81 4	27.0	517. 511	0.0 00	0.00 0	2.3	207. 084	41.881
FEH: 30 years: +40 %: 1440 mins: Summer	27.1 13	27.1 13	27.1 13	0.84 3	0.8 43	0.84 3	31.0	535. 888	0.0 00	0.00 0	2.3	313. 097	39.817
FEH: 30 years: +40 %: 1440 mins: Winter	27.1 16	27.1 16	27.1 16	0.84 6	0.8 46	0.84 6	20.0	537. 840	0.0 00	0.00 0	2.3	314. 162	39.598
FEH: 30 years: +40 %: 2160 mins: Summer	27.1 23	27.1 23	27.1 23	0.85 3	0.8 53	0.85 3	23.0	542. 343	0.0 00	0.00 0	2.3	479. 441	39.092
FEH: 30 years: +40 %: 2160 mins: Winter	27.1 29	27.1 29	27.1 29	0.85 9	0.8 59	0.85 9	14.9	546. 073	0.0 00	0.00 0	2.3	481. 077	38.673

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FEH: 30 years: +40 %: 2880 mins: Summer	27.1 22	27.1 22	27.1 22	0.85 2	0.8 52	0.85 2	18.7	542. 094	0.0 00	0.00 0	2.3	650. 196	39.120
FEH: 30 years: +40 %: 2880 mins: Winter	27.1 23	27.1 23	27.1 23	0.85 3	0.8 53	0.85 3	12.1	542. 233	0.0 00	0.00 0	2.3	652. 888	39.105
FEH: 30 years: +40 %: 4320 mins: Summer	27.1 19	27.1 19	27.1 19	0.84 9	0.8 49	0.84 9	14.1	539. 779	0.0 00	0.00 0	2.3	928. 556	39.380
FEH: 30 years: +40 %: 4320 mins: Winter	27.1 08	27.1 08	27.1 08	0.83 8	0.8 38	0.83 8	9.1	532. 686	0.0 00	0.00 0	2.3	930. 454	40.177
FEH: 30 years: +40 %: 5760 mins: Summer	27.1 12	27.1 12	27.1 12	0.84 2	0.8 42	0.84 2	11.6	535. 829	0.0 00	0.00 0	2.3	1041 .674	39.824
FEH: 30 years: +40 %: 5760 mins: Winter	27.0 87	27.0 87	27.0 87	0.81 7	0.8 17	0.81 7	7.5	519. 516	0.0 00	0.00 0	2.3	1040 .735	41.656
FEH: 30 years: +40 %: 7200 mins: Summer	27.1 06	27.1 06	27.1 06	0.83 6	0.8 36	0.83 6	10.0	531. 649	0.0 00	0.00 0	2.3	1128 .074	40.293

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 30 years: +40 %: 7200 mins: Winter	27.0 66	27.0 66	27.0 66	0.79 6	0.7 96	0.79 6	6.5	506. 121	0.0 00	0.00 0	2.3	1127 .835	43.160
FEH: 30 years: +40 %: 8640 mins: Summer	27.1 01	27.1 01	27.1 01	0.83 1	0.8 31	0.83 1	9.0	528. 758	0.0 00	0.00 0	2.3	1208 .600	40.618
FEH: 30 years: +40 %: 8640 mins: Winter	27.0 45	27.0 45	27.0 45	0.77 5	0.7 75	0.77 5	5.8	492. 677	0.0 00	0.00 0	2.3	1209 .126	44.670
FEH: 30 years: +40 %: 10080 mins: Summer	27.0 99	27.0 99	27.0 99	0.82 9	0.8 29	0.82 9	8.2	526. 967	0.0 00	0.00 0	2.3	1286 .612	40.819
FEH: 30 years: +40 %: 10080 mins: Winter	27.0 22	27.0 22	27.0 22	0.75 2	0.7 52	0.75 2	5.3	478. 534	0.0 00	0.00 0	2.3	1285 .658	46.258

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary
Results for Tank: Rank By: Max. Avg. Depth**

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. 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 (%)
FEH: 100 years: +45 %: 15 mins: Summer	26.667	26.667	26.667	0.397	0.397	0.397	433.8	252.664	0.000	0.000	3.0	3.609	71.625
FEH: 100 years: +45 %: 15 mins: Winter	26.667	26.667	26.667	0.397	0.397	0.397	420.6	252.645	0.000	0.000	3.0	3.628	71.627
FEH: 100 years: +45 %: 30 mins: Summer	26.789	26.789	26.789	0.519	0.519	0.519	356.0	329.957	0.000	0.000	2.9	7.281	62.944
FEH: 100 years: +45 %: 30 mins: Winter	26.789	26.789	26.789	0.519	0.519	0.519	341.1	329.963	0.000	0.000	2.9	7.316	62.944

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 60 mins: Summer	26.9 13	26.9 13	26.9 13	0.64 3	0.6 43	0.64 3	325. 2	408. 848	0.0 00	0.00 0	2.9	13.7 51	54.084
FEH: 100 years: +45 %: 60 mins: Winter	26.9 13	26.9 13	26.9 13	0.64 3	0.6 43	0.64 3	273. 3	408. 750	0.0 00	0.00 0	2.8	13.7 03	54.096
FEH: 100 years: +45 %: 120 mins: Summer	27.0 04	27.0 04	27.0 04	0.73 4	0.7 34	0.73 4	233. 3	466. 647	0.0 00	0.00 0	2.7	25.9 33	47.593
FEH: 100 years: +45 %: 120 mins: Winter	27.0 04	27.0 04	27.0 04	0.73 4	0.7 34	0.73 4	167. 8	466. 537	0.0 00	0.00 0	2.6	25.9 54	47.606
FEH: 100 years: +45 %: 180 mins: Summer	27.0 62	27.0 62	27.0 62	0.79 2	0.7 92	0.79 2	178. 3	503. 692	0.0 00	0.00 0	2.6	39.5 90	43.433
FEH: 100 years: +45 %: 180 mins: Winter	27.0 62	27.0 62	27.0 62	0.79 2	0.7 92	0.79 2	122. 3	503. 672	0.0 00	0.00 0	2.5	39.6 60	43.435

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	27.1 06	27.1 06	27.1 06	0.83 6	0.8 36	0.83 6	145. 8	531. 583	0.0 00	0.00 0	2.5	53.6 31	40.301
FEH: 100 years: +45 %: 240 mins: Winter	27.1 06	27.1 06	27.1 06	0.83 6	0.8 36	0.83 6	97.9	531. 521	0.0 00	0.00 0	2.4	53.7 07	40.308
FEH: 100 years: +45 %: 360 mins: Summer	27.1 71	27.1 71	27.1 71	0.90 1	0.9 01	0.90 1	108. 9	572. 999	0.0 00	0.00 0	2.4	82.5 06	35.650
FEH: 100 years: +45 %: 360 mins: Winter	27.1 71	27.1 71	27.1 71	0.90 1	0.9 01	0.90 1	71.7	573. 284	0.0 00	0.00 0	2.4	82.4 03	35.617
FEH: 100 years: +45 %: 480 mins: Summer	27.2 19	27.2 19	27.2 19	0.94 9	0.9 49	0.94 9	89.3	603. 471	0.0 00	0.00 0	2.4	111.8 66	32.227
FEH: 100 years: +45 %: 480 mins: Winter	27.2 20	27.2 20	27.2 20	0.95 0	0.9 50	0.95 0	57.8	603. 932	0.0 00	0.00 0	2.4	111.7 24	32.176

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FEH: 100 years: +45 %: 600 mins: Summer	27.2 56	27.2 56	27.2 56	0.98 6	0.9 86	0.98 6	75.7	627. 039	0.0 00	0.00 0	2.4	141. 499	29.581
FEH: 100 years: +45 %: 600 mins: Winter	27.2 57	27.2 57	27.2 57	0.98 7	0.9 87	0.98 7	48.8	627. 891	0.0 00	0.00 0	2.3	141. 402	29.485
FEH: 100 years: +45 %: 720 mins: Summer	27.2 86	27.2 86	27.2 86	1.01 6	1.0 16	1.01 6	66.1	646. 009	0.0 00	0.00 0	2.4	171. 469	27.450
FEH: 100 years: +45 %: 720 mins: Winter	27.2 87	27.2 87	27.2 87	1.01 7	1.0 17	1.01 7	42.4	647. 028	0.0 00	0.00 0	2.3	171. 199	27.336
FEH: 100 years: +45 %: 960 mins: Summer	27.3 30	27.3 30	27.3 30	1.06 0	1.0 60	1.06 0	52.6	674. 069	0.0 00	0.00 0	2.3	231. 451	24.299
FEH: 100 years: +45 %: 960 mins: Winter	27.3 33	27.3 33	27.3 33	1.06 3	1.0 63	1.06 3	34.1	676. 065	0.0 00	0.00 0	2.3	231. 026	24.075

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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FEH: 100 years: +45 %: 1440 mins: Summer	27.3 81	27.3 81	27.3 81	1.11 1	1.1 11	1.111	38.7	706. 851	0.0 00	0.00 0	2.3	350. 424	20.617
FEH: 100 years: +45 %: 1440 mins: Winter	27.3 88	27.3 88	27.3 88	1.11 8	1.1 18	1.118	24.9	710. 787	0.0 00	0.00 0	2.3	349. 760	20.175
FEH: 100 years: +45 %: 2160 mins: Summer	27.4 07	27.4 07	27.4 07	1.13 7	1.1 37	1.13 7	28.6	723. 421	0.0 00	0.00 0	2.4	522. 274	18.756
FEH: 100 years: +45 %: 2160 mins: Winter	27.4 18	27.4 18	27.4 18	1.14 8	1.1 48	1.14 8	18.4	730. 338	0.0 00	0.00 0	2.4	521. 267	17.980
FEH: 100 years: +45 %: 2880 mins: Summer	27.4 10	27.4 10	27.4 10	1.14 0	1.1 40	1.14 0	23.1	724. 891	0.0 00	0.00 0	2.4	686. 500	18.591
FEH: 100 years: +45 %: 2880 mins: Winter	27.4 22	27.4 22	27.4 22	1.15 2	1.1 52	1.15 2	14.9	732. 671	0.0 00	0.00 0	2.4	685. 479	17.718

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Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 100 years: +45 %: 4320 mins: Summer	27.4 04	27.4 04	27.4 04	1.13 4	1.1 34	1.13 4	17.4	721. 015	0.0 00	0.00 0	2.4	1034 .617	19.027
FEH: 100 years: +45 %: 4320 mins: Winter	27.4 03	27.4 03	27.4 03	1.13 3	1.1 33	1.13 3	11.1	720. 903	0.0 00	0.00 0	2.4	1034 .285	19.039
FEH: 100 years: +45 %: 5760 mins: Summer	27.3 92	27.3 92	27.3 92	1.12 2	1.1 22	1.12 2	14.2	713. 936	0.0 00	0.00 0	2.3	1288 .484	19.822
FEH: 100 years: +45 %: 5760 mins: Winter	27.3 83	27.3 83	27.3 83	1.11 3	1.1 13	1.113	9.1	707. 814	0.0 00	0.00 0	2.3	1289 .978	20.509
FEH: 100 years: +45 %: 7200 mins: Summer	27.3 82	27.3 82	27.3 82	1.11 2	1.1 12	1.112	12.1	707. 316	0.0 00	0.00 0	2.3	1396 .739	20.565
FEH: 100 years: +45 %: 7200 mins: Winter	27.3 59	27.3 59	27.3 59	1.08 9	1.0 89	1.08 9	7.9	692. 543	0.0 00	0.00 0	2.3	1397 .382	22.224

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FEH: 100 years: +45 %: 8640 mins: Summer	27.3 73	27.3 73	27.3 73	1.10 3	1.1 03	1.10 3	10.8	701. 553	0.0 00	0.00 0	2.3	1485 .636	21.212
FEH: 100 years: +45 %: 8640 mins: Winter	27.3 33	27.3 33	27.3 33	1.06 3	1.0 63	1.06 3	7.0	675. 992	0.0 00	0.00 0	2.3	1484 .388	24.083
FEH: 100 years: +45 %: 10080 mins: Summer	27.3 66	27.3 66	27.3 66	1.09 6	1.0 96	1.09 6	9.8	696. 882	0.0 00	0.00 0	2.3	1570 .274	21.737
FEH: 100 years: +45 %: 10080 mins: Winter	27.3 09	27.3 09	27.3 09	1.03 9	1.0 39	1.03 9	6.3	660. 785	0.0 00	0.00 0	2.3	1570 .463	25.791

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**FEH: 200 years: Increase Rainfall (%): +45: Summary
Results for Tank: Rank By: Max. Avg. Depth**

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. 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 (%)
FEH: 200 years: +45 %: 15 mins: Summer	26.714	26.714	26.714	0.444	0.444	0.444	488.3	282.655	0.000	0.000	3.2	3.888	68.256
FEH: 200 years: +45 %: 15 mins: Winter	26.714	26.714	26.714	0.444	0.444	0.444	456.8	282.624	0.000	0.000	3.1	3.913	68.260
FEH: 200 years: +45 %: 30 mins: Summer	26.853	26.853	26.853	0.583	0.583	0.583	388.6	370.720	0.000	0.000	3.0	7.392	58.366
FEH: 200 years: +45 %: 30 mins: Winter	26.853	26.853	26.853	0.583	0.583	0.583	370.8	370.716	0.000	0.000	2.9	7.453	58.367

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FEH: 200 years: +45 %: 60 mins: Summer	26.9 96	26.9 96	26.9 96	0.72 6	0.7 26	0.72 6	352. 5	461. 681	0.0 00	0.00 0	2.9	13.8 64	48.151
FEH: 200 years: +45 %: 60 mins: Winter	26.9 96	26.9 96	26.9 96	0.72 6	0.7 26	0.72 6	308. 3	461. 639	0.0 00	0.00 0	2.8	13.7 77	48.156
FEH: 200 years: +45 %: 120 mins: Summer	27.0 97	27.0 97	27.0 97	0.82 7	0.8 27	0.82 7	263. 4	526. 046	0.0 00	0.00 0	2.7	27.3 23	40.923
FEH: 200 years: +45 %: 120 mins: Winter	27.0 97	27.0 97	27.0 97	0.82 7	0.8 27	0.82 7	186. 7	526. 052	0.0 00	0.00 0	2.6	27.3 57	40.922
FEH: 200 years: +45 %: 180 mins: Summer	27.1 65	27.1 65	27.1 65	0.89 5	0.8 95	0.89 5	199. 9	569. 267	0.0 00	0.00 0	2.6	41.9 57	36.069
FEH: 200 years: +45 %: 180 mins: Winter	27.1 65	27.1 65	27.1 65	0.89 5	0.8 95	0.89 5	137. 2	569. 311	0.0 00	0.00 0	2.5	41.6 63	36.064

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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FEH: 200 years: +45 %: 240 mins: Summer	27.2 18	27.2 18	27.2 18	0.94 8	0.9 48	0.94 8	164. 3	602. 661	0.0 00	0.00 0	2.5	56.8 53	32.318
FEH: 200 years: +45 %: 240 mins: Winter	27.2 18	27.2 18	27.2 18	0.94 8	0.9 48	0.94 8	110. 4	602. 791	0.0 00	0.00 0	2.4	56.4 74	32.304
FEH: 200 years: +45 %: 360 mins: Summer	27.2 98	27.2 98	27.2 98	1.02 8	1.0 28	1.02 8	123. 3	653. 600	0.0 00	0.00 0	2.4	87.4 00	26.598
FEH: 200 years: +45 %: 360 mins: Winter	27.2 98	27.2 98	27.2 98	1.02 8	1.0 28	1.02 8	81.5	654. 074	0.0 00	0.00 0	2.4	87.0 58	26.544
FEH: 200 years: +45 %: 480 mins: Summer	27.3 57	27.3 57	27.3 57	1.08 7	1.0 87	1.08 7	101. 1	691. 345	0.0 00	0.00 0	2.4	118. 695	22.359
FEH: 200 years: +45 %: 480 mins: Winter	27.3 58	27.3 58	27.3 58	1.08 8	1.0 88	1.08 8	65.5	692. 255	0.0 00	0.00 0	2.4	118. 277	22.257

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FEH: 200 years: +45 %: 600 mins: Summer	27.4 04	27.4 04	27.4 04	1.13 4	1.1 34	1.13 4	85.1	720. 965	0.0 00	0.00 0	2.4	150. 469	19.032
FEH: 200 years: +45 %: 600 mins: Winter	27.4 06	27.4 06	27.4 06	1.13 6	1.1 36	1.13 6	54.8	722. 329	0.0 00	0.00 0	2.4	149. 976	18.879
FEH: 200 years: +45 %: 720 mins: Summer	27.4 42	27.4 42	27.4 42	1.17 2	1.1 72	1.17 2	74.3	745. 180	0.0 00	0.00 0	2.4	182. 461	16.313
FEH: 200 years: +45 %: 720 mins: Winter	27.4 44	27.4 44	27.4 44	1.17 4	1.1 74	1.17 4	47.8	746. 726	0.0 00	0.00 0	2.4	181. 843	16.139
FEH: 200 years: +45 %: 960 mins: Summer	27.4 99	27.4 99	27.4 99	1.22 9	1.2 29	1.22 9	59.8	781. 432	0.0 00	0.00 0	2.5	246. 981	12.242
FEH: 200 years: +45 %: 960 mins: Winter	27.5 03	27.5 03	27.5 03	1.23 3	1.2 33	1.23 3	38.3	783. 990	0.0 00	0.00 0	2.5	246. 060	11.954

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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FEH: 200 years: +45 %: 1440 mins: Summer	27.5 67	27.5 67	27.5 67	1.29 7	1.2 97	1.29 7	44.2	824. 911	0.0 00	0.00 0	2.5	375. 296	7.359
FEH: 200 years: +45 %: 1440 mins: Winter	27.5 74	27.5 74	27.5 74	1.30 4	1.3 04	1.30 4	28.5	829. 210	0.0 00	0.00 0	2.5	373. 759	6.876
FEH: 200 years: +45 %: 2160 mins: Summer	27.6 04	27.6 04	27.6 04	1.33 4	1.3 34	1.33 4	32.7	848. 602	0.0 00	0.00 0	2.5	561. 266	4.698
FEH: 200 years: +45 %: 2160 mins: Winter	27.6 17	27.6 17	27.6 17	1.34 7	1.3 47	1.34 7	21.2	856. 858	0.0 00	0.00 0	2.6	559. 195	3.771
FEH: 200 years: +45 %: 2880 mins: Summer	27.6 07	27.6 07	27.6 07	1.33 7	1.3 37	1.33 7	26.5	850. 167	0.0 00	0.00 0	2.5	736. 704	4.522
FEH: 200 years: +45 %: 2880 mins: Winter	27.6 24	27.6 24	27.6 24	1.35 4	1.3 54	1.35 4	17.1	861. 005	0.0 00	0.00 0	2.6	734. 332	3.305

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026				
	Designed AMG	Checked by:	Approved		
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG				

FEH: 200 years: +45 %: 4320 mins: Summer	27.5 94	27.5 94	27.5 94	1.32 4	1.3 24	1.32 4	19.7	842. 328	0.0 00	0.00 0	2.5	1074 .355	5.403
FEH: 200 years: +45 %: 4320 mins: Winter	27.6 00	27.6 00	27.6 00	1.33 0	1.3 30	1.33 0	12.7	845. 850	0.0 00	0.00 0	2.5	1072 .063	5.007
FEH: 200 years: +45 %: 5760 mins: Summer	27.5 78	27.5 78	27.5 78	1.30 8	1.3 08	1.30 8	15.9	832. 235	0.0 00	0.00 0	2.5	1414 .800	6.536
FEH: 200 years: +45 %: 5760 mins: Winter	27.5 73	27.5 73	27.5 73	1.30 3	1.3 03	1.30 3	10.3	829. 046	0.0 00	0.00 0	2.5	1413 .767	6.894
FEH: 200 years: +45 %: 7200 mins: Summer	27.5 61	27.5 61	27.5 61	1.29 1	1.2 91	1.29 1	13.6	821. 031	0.0 00	0.00 0	2.5	1562 .982	7.794
FEH: 200 years: +45 %: 7200 mins: Winter	27.5 43	27.5 43	27.5 43	1.27 3	1.2 73	1.27 3	8.8	809. 901	0.0 00	0.00 0	2.5	1564 .589	9.044

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 8640 mins: Summer	27.5 45	27.5 45	27.5 45	1.27 5	1.2 75	1.27 5	12.0	811. 006	0.0 00	0.00 0	2.5	1656 .193	8.920
FEH: 200 years: +45 %: 8640 mins: Winter	27.5 13	27.5 13	27.5 13	1.24 3	1.2 43	1.24 3	7.8	790. 568	0.0 00	0.00 0	2.5	1656 .814	11.216
FEH: 200 years: +45 %: 10080 mins: Summer	27.5 32	27.5 32	27.5 32	1.26 2	1.2 62	1.26 2	10.8	802. 482	0.0 00	0.00 0	2.5	1741 .781	9.878
FEH: 200 years: +45 %: 10080 mins: Winter	27.4 83	27.4 83	27.4 83	1.21 3	1.2 13	1.21 3	7.0	771. 548	0.0 00	0.00 0	2.4	1740 .167	13.352

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

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Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





5mm of Rainfall: Increase Rainfall (%): +0: Summary
Results for Tank: Rank By: Max. Avg. Depth

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Stormwater Controls Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.003-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S03-5	Tank	28.711	26.944	0.227	37.615	1.2	0.97	68.7	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S03-5	Tank	28.711	26.938	0.222	37.607	1.2	0.94	66.2	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S03-5	Tank	28.711	26.911	0.200	48.345	1.1	0.79	55.8	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S03-5	Tank	28.711	26.903	0.193	48.351	1.1	0.74	52.4	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S03-5	Tank	28.711	26.892	0.183	60.017	1.1	0.68	48.0	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S03-5	Tank	28.711	26.868	0.162	60.029	1.0	0.55	38.6	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S03-5	Tank	28.711	26.863	0.158	77.524	1.0	0.52	36.8	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S03-5	Tank	28.711	26.834	0.132	77.506	0.9	0.37	26.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S03-5	Tank	28.711	26.844	0.141	88.993	0.9	0.42	29.8	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S03-5	Tank	28.711	26.816	0.115	88.969	0.8	0.29	20.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.83 1	0.1 29	97.731	0.9	0.36	25. 3	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.80 4	0.1 04	97.707	0.8	0.24	17. 0	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.81 3	0.1 12	111.03 0	0.8	0.28	19. 7	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.78 9	0.0 90	111.00 6	0.7	0.18	12. 9	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.80 2	0.1 02	121.31 5	0.8	0.23	16. 5	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.78 0	0.0 81	121.33 4	0.7	0.15	10. 6	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.79 4	0.0 94	129.88 9	0.7	0.2	14. 1	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.77 3	0.0 75	129.92 6	0.7	0.13	9.1	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.78 7	0.0 88	137.27 0	0.7	0.18	12. 5	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.76 8	0.0 70	137.30 0	0.6	0.11	8.0	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.77 8	0.0 79	149.63 0	0.7	0.14	10. 2	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.76 1	0.0 63	149.71 1	0.6	0.09	6.6	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.76 6	0.0 68	169.32 2	0.6	0.11	7.7	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.75 2	0.0 54	169.40 0	0.6	0.07	5.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.75 7	0.0 59	192.13 4	0.6	0.08	5.8	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.74 4	0.0 47	191.92 4	0.5	0.05	3.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.75 1	0.0 53	210.53 6	0.6	0.07	4.8	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.74 0	0.0 43	210.89 6	0.5	0.04	3.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.74 4	0.0 47	241.78 4	0.5	0.05	3.7	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 4	0.0 38	241.43 6	0.5	0.03	2.4	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.73 9	0.0 42	269.66 0	0.5	0.04	3.0	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 1	0.0 34	268.89 2	0.4	0.03	2.0	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.73 7	0.0 40	294.89 0	0.5	0.04	2.7	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.72 8	0.0 32	294.45 8	0.4	0.02	1.7	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.73 5	0.0 38	318.65 0	0.5	0.03	2.4	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.72 7	0.0 30	318.62 6	0.4	0.02	1.6	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.73 3	0.0 36	342.09 2	0.5	0.03	2.2	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.72 6	0.0 29	342.69 2	0.4	0.02	1.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-5.001-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.895	0.113	8.540	0.7	0.25	17.7	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.892	0.109	8.543	0.7	0.24	16.7	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.877	0.093	10.964	0.7	0.18	12.7	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.875	0.090	10.958	0.7	0.17	11.9	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.871	0.086	13.606	0.7	0.15	10.9	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.863	0.076	13.613	0.6	0.12	8.7	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.861	0.074	17.573	0.6	0.12	8.3	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.851	0.063	17.567	0.6	0.08	6.0	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.854	0.067	20.159	0.6	0.1	6.7	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.844	0.055	20.172	0.5	0.07	4.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 9	0.0 61	22.134	0.6	0.08	5.7	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 9	0.0 50	22.146	0.5	0.05	3.8	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 3	0.0 54	25.128	0.5	0.06	4.4	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 3	0.0 44	25.182	0.5	0.04	2.9	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 8	0.0 49	27.516	0.5	0.05	3.7	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 0	0.0 40	27.486	0.4	0.03	2.4	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 5	0.0 46	29.418	0.5	0.05	3.2	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 7	0.0 37	29.430	0.4	0.03	2.1	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 3	0.0 43	31.074	0.5	0.04	2.8	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 5	0.0 35	31.116	0.4	0.03	1.8	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 9	0.0 39	33.924	0.4	0.03	2.3	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 2	0.0 32	33.924	0.4	0.02	1.5	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 4	0.0 34	38.334	0.4	0.02	1.7	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 28	38.406	0.3	0.02	1.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 0	0.0 30	43.440	0.4	0.02	1.3	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 5	0.0 24	43.530	0.3	0.01	0.9	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 27	47.676	0.3	0.02	1.1	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 3	0.0 22	47.628	0.3	0.01	0.7	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 5	0.0 24	55.170	0.3	0.01	0.8	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 0	0.0 19	55.146	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 3	0.0 22	61.512	0.3	0.01	0.7	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.80 9	0.0 18	61.098	0.3	0.01	0.4	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 2	0.0 21	66.948	0.3	0.01	0.6	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.80 8	0.0 17	67.284	0.2	0.01	0.4	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 1	0.0 20	71.928	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.80 7	0.0 16	72.894	0.2	0	0.3	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 0	0.0 19	76.698	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.80 7	0.0 15	76.356	0.2	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.000-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.051	0.152	1.176	0.1	0.02	1.7	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.041	0.141	1.177	0.1	0.02	1.6	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.020	0.111	1.529	0.1	0.03	1.8	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.020	0.105	1.536	0.1	0.02	1.7	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.018	0.098	1.913	0.1	0.02	1.5	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.016	0.083	1.921	0.1	0.02	1.2	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.015	0.081	2.476	0.1	0.02	1.2	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.011	0.065	2.477	0.1	0.01	0.8	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.013	0.070	2.861	0.1	0.01	1.0	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.009	0.056	2.856	0.1	0.01	0.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.01 1	0.0 63	3.138	0.1	0.01	0.8	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 7	0.0 50	3.133	0.1	0.01	0.5	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 8	0.0 55	3.559	0.1	0.01	0.6	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 5	0.0 43	3.560	0.1	0.01	0.4	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 7	0.0 49	3.895	0.1	0.01	0.5	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 4	0.0 39	3.878	0.1	0	0.3	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 6	0.0 45	4.160	0.1	0.01	0.4	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 3	0.0 36	4.161	0.1	0	0.3	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 5	0.0 42	4.394	0.1	0.01	0.4	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 2	0.0 34	4.437	0.1	0	0.3	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 3	0.0 38	4.808	0.1	0	0.3	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 1	0.0 31	4.815	0.1	0	0.2	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 2	0.0 33	5.421	0.1	0	0.2	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 9	0.0 27	5.470	0.1	0	0.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 0	0.0 29	6.249	0.1	0	0.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 23	6.154	0.0	0	0.1	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 9	0.0 26	6.688	0.1	0	0.1	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 21	6.880	0.0	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 23	7.720	0.0	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 6	0.0 19	7.523	0.0	0	0.1	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 21	8.644	0.0	0	0.1	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 17	8.501	0.0	0	0.1	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 6	0.0 20	9.670	0.0	0	0.1	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 16	9.413	0.0	0	0.1	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 6	0.0 19	10.582	0.0	0	0.1	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 15	10.469	0.0	0	0.1	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 18	11.620	0.0	0	0.1	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 15	11.249	0.0	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.065	0.263	25.024	0.7	0.63	44.6	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.054	0.252	25.020	0.7	0.62	43.6	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.014	0.211	32.106	0.7	0.52	37.0	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.003	0.200	32.111	0.7	0.49	34.8	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	26.990	0.187	39.837	0.7	0.45	31.9	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	26.964	0.160	39.855	0.7	0.36	25.6	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	26.959	0.154	51.455	0.7	0.35	24.4	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	26.932	0.125	51.454	0.6	0.25	17.6	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	26.941	0.134	59.063	0.6	0.28	19.8	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	26.916	0.107	59.063	0.6	0.19	13.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.92 9	0.1 21	64.859	0.6	0.24	16. 8	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.90 7	0.0 96	64.859	0.6	0.16	11. 3	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.91 4	0.1 04	73.685	0.6	0.18	13. 0	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.89 5	0.0 82	73.685	0.6	0.12	8.6	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.90 5	0.0 94	80.525	0.6	0.15	10. 9	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.88 8	0.0 74	80.531	0.5	0.1	7.1	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.89 8	0.0 86	86.201	0.6	0.13	9.4	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.88 3	0.0 68	86.213	0.5	0.09	6.0	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.89 3	0.0 80	91.079	0.5	0.12	8.3	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 9	0.0 64	91.157	0.5	0.08	5.3	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.88 6	0.0 72	99.323	0.5	0.1	6.8	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 4	0.0 57	99.350	0.5	0.06	4.4	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 8	0.0 62	112.35 5	0.5	0.07	5.1	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 8	0.0 50	112.40 9	0.4	0.05	3.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 1	0.0 54	127.57 1	0.4	0.05	3.9	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 2	0.0 43	127.42 7	0.4	0.04	2.5	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 7	0.0 49	139.64 9	0.4	0.04	3.2	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 9	0.0 39	139.87 1	0.4	0.03	2.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 2	0.0 43	160.54 1	0.4	0.03	2.4	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 5	0.0 35	160.18 7	0.3	0.02	1.6	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 9	0.0 39	178.87 1	0.4	0.03	2.0	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 2	0.0 32	178.56 5	0.3	0.02	1.3	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 7	0.0 37	195.79 7	0.4	0.03	1.8	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 1	0.0 30	195.34 7	0.3	0.02	1.1	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 5	0.0 35	212.03 9	0.3	0.02	1.6	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.84 9	0.0 28	211.60 1	0.3	0.01	1.0	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 4	0.0 33	227.29 7	0.3	0.02	1.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.84 8	0.0 27	227.15 9	0.3	0.01	0.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.032	0.267	37.705	1.1	1.01	71.8	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.022	0.258	37.699	1.1	0.98	69.1	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S03 - 5	S03-5	28.792	26.980	0.224	48.385	1.0	0.79	55.8	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.969	0.215	48.392	1.0	0.74	52.4	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S03 - 5	S03-5	28.792	26.956	0.202	60.037	0.9	0.68	48.0	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.927	0.176	60.049	0.9	0.55	38.6	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S03 - 5	S03-5	28.792	26.921	0.171	77.540	0.9	0.52	36.8	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.889	0.140	77.521	0.8	0.37	26.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S03 - 5	S03-5	28.792	26.900	0.151	89.006	0.8	0.42	29.8	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.869	0.121	88.982	0.8	0.29	20.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.88 5	0.1 37	97.742	0.8	0.36	25. 3	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.85 7	0.1 09	97.718	0.7	0.24	17. 0	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.86 6	0.1 18	111.03 8	0.8	0.28	19. 7	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.84 1	0.0 94	111.01 3	0.7	0.18	12. 9	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.85 5	0.1 07	121.32 2	0.7	0.23	16. 5	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.83 2	0.0 84	121.33 9	0.7	0.15	10. 6	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.84 6	0.0 98	129.89 6	0.7	0.2	14. 1	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.82 5	0.0 77	129.93 1	0.6	0.13	9.1	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.83 9	0.0 92	137.27 6	0.7	0.18	12. 5	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.82 0	0.0 72	137.30 5	0.6	0.11	8.0	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.83 0	0.0 82	149.63 5	0.6	0.14	10. 2	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.81 2	0.0 65	149.71 6	0.6	0.09	6.6	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.81 8	0.0 71	169.32 7	0.6	0.11	7.7	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.80 4	0.0 56	169.40 4	0.5	0.07	5.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.80 9	0.0 61	192.13 9	0.6	0.08	5.8	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.79 6	0.0 49	191.92 8	0.5	0.05	3.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.80 3	0.0 55	210.54 1	0.5	0.07	4.8	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.79 2	0.0 44	210.90 0	0.5	0.04	3.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.79 6	0.0 48	241.78 9	0.5	0.05	3.7	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 6	0.0 39	241.44 0	0.4	0.03	2.4	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.79 1	0.0 44	269.66 5	0.5	0.04	3.0	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 3	0.0 35	268.89 6	0.4	0.03	2.0	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.78 9	0.0 41	294.89 5	0.5	0.04	2.7	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 1	0.0 33	294.46 2	0.4	0.02	1.7	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.78 7	0.0 39	318.65 4	0.4	0.03	2.4	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.77 9	0.0 31	318.63 0	0.4	0.02	1.6	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.78 5	0.0 38	342.09 6	0.4	0.03	2.2	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.77 8	0.0 30	342.69 6	0.4	0.02	1.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-2.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.282	0.047	1.219	0.5	0.03	2.7	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.281	0.042	1.218	0.5	0.02	2.5	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.277	0.029	1.551	0.5	0.02	1.8	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.276	0.028	1.556	0.5	0.02	1.7	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.275	0.027	1.928	0.5	0.01	1.5	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.273	0.025	1.933	0.5	0.01	1.2	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.272	0.024	2.485	0.5	0.01	1.2	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.269	0.021	2.485	0.4	0.01	0.8	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.270	0.022	2.869	0.4	0.01	1.0	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.267	0.018	2.862	0.4	0.01	0.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 9	0.0 20	3.144	0.4	0.01	0.8	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 5	0.0 17	3.138	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 6	0.0 18	3.564	0.4	0.01	0.6	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 4	0.0 15	3.564	0.3	0	0.4	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 5	0.0 17	3.900	0.3	0	0.5	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 14	3.882	0.3	0	0.3	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 4	0.0 15	4.164	0.3	0	0.4	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 13	4.164	0.3	0	0.3	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 3	0.0 15	4.398	0.3	0	0.4	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 1	0.0 12	4.440	0.3	0	0.3	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 13	4.812	0.3	0	0.3	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 0	0.0 11	4.818	0.3	0	0.2	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 1	0.0 12	5.424	0.3	0	0.3	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 09	5.472	0.2	0	0.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 0	0.0 10	6.252	0.3	0	0.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 08	6.156	0.2	0	0.1	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 09	6.690	0.2	0	0.2	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 07	6.882	0.2	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 08	7.722	0.2	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	7.524	0.2	0	0.1	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 07	8.646	0.2	0	0.1	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 5	0.0 06	8.502	0.2	0	0.1	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 07	9.672	0.2	0	0.1	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 5	0.0 06	9.414	0.2	0	0.1	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	10.584	0.2	0	0.1	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 4	0.0 05	10.470	0.2	0	0.1	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	11.622	0.2	0	0.1	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 4	0.0 05	11.250	0.2	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.005 - 5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S04-5	EX	28.502	26.378	0.033	1.929	0.5	0.05	1.8	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S04-5	EX	28.502	26.378	0.033	1.928	0.5	0.05	1.8	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S04-5	EX	28.502	26.408	0.035	4.930	0.5	0.05	2.0	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S04-5	EX	28.502	26.408	0.035	4.934	0.5	0.05	2.0	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S04-5	EX	28.502	26.439	0.036	11.118	0.5	0.05	2.1	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S04-5	EX	28.502	26.439	0.036	11.154	0.5	0.05	2.1	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S04-5	EX	28.502	26.483	0.037	24.307	0.5	0.06	2.2	Sur charged
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S04-5	EX	28.502	26.483	0.037	24.439	0.5	0.06	2.2	Sur charged
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S04-5	EX	28.502	26.508	0.037	37.725	0.5	0.06	2.2	Sur charged
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S04-5	EX	28.502	26.508	0.037	37.959	0.5	0.06	2.2	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S04-5	EX	28.50 2	26.52 6	0.0 37	51.258	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S04-5	EX	28.50 2	26.52 6	0.0 37	51.596	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S04-5	EX	28.50 2	26.54 8	0.0 37	78.368	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S04-5	EX	28.50 2	26.54 8	0.0 37	78.905	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S04-5	EX	28.50 2	26.56 1	0.0 37	105.39 4	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S04-5	EX	28.50 2	26.56 2	0.0 37	106.11 5	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S04-5	EX	28.50 2	26.56 9	0.0 38	132.22 0	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S04-5	EX	28.50 2	26.57 0	0.0 38	133.10 7	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S04-5	EX	28.50 2	26.57 5	0.0 38	158.60 0	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S04-5	EX	28.50 2	26.57 5	0.0 38	159.69 3	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S04-5	EX	28.50 2	26.58 2	0.0 38	209.31 4	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S04-5	EX	28.50 2	26.58 0	0.0 38	210.68 7	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S04-5	EX	28.50 2	26.59 0	0.0 38	287.43 8	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S04-5	EX	28.50 2	26.58 4	0.0 38	288.38 3	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S04-5	EX	28.50 2	26.59 0	0.0 38	351.82 6	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S04-5	EX	28.50 2	26.57 7	0.0 38	352.16 5	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S04-5	EX	28.50 2	26.58 5	0.0 38	392.92 6	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S04-5	EX	28.50 2	26.56 4	0.0 37	393.36 3	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S04-5	EX	28.50 2	26.57 1	0.0 38	453.87 5	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S04-5	EX	28.50 2	26.53 4	0.0 37	454.16 2	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S04-5	EX	28.50 2	26.55 6	0.0 37	506.80 0	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S04-5	EX	28.50 2	26.50 5	0.0 37	504.63 6	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S04-5	EX	28.50 2	26.54 2	0.0 37	555.02 0	0.5	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S04-5	EX	28.50 2	26.48 2	0.0 37	554.28 5	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S04-5	EX	28.50 2	26.52 8	0.0 37	599.44 5	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S04-5	EX	28.50 2	26.46 1	0.0 37	600.65 8	0.5	0.06	2.1	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S04-5	EX	28.50 2	26.51 7	0.0 37	642.54 5	0.5	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S04-5	EX	28.50 2	26.44 4	0.0 36	641.86 8	0.5	0.05	2.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-5.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.752	0.117	17.619	1.4	0.29	36.5	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.748	0.113	17.627	1.4	0.28	34.5	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.729	0.097	22.623	1.3	0.21	26.1	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.726	0.093	22.617	1.3	0.2	24.5	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.721	0.089	28.072	1.3	0.18	22.5	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.711	0.079	28.085	1.2	0.15	18.1	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.709	0.077	36.251	1.2	0.14	17.2	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.696	0.065	36.245	1.1	0.1	12.4	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.700	0.069	41.591	1.1	0.11	13.9	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.688	0.057	41.591	1.0	0.08	9.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 4	0.0 64	45.653	1.1	0.1	11. 8	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 2	0.0 52	45.695	1.0	0.06	7.9	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 6	0.0 56	51.851	1.0	0.07	9.2	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 5	0.0 45	51.953	0.9	0.05	6.0	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 1	0.0 51	56.765	1.0	0.06	7.7	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 1	0.0 41	56.711	0.8	0.04	5.0	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 7	0.0 48	60.701	0.9	0.05	6.6	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 8	0.0 38	60.671	0.8	0.03	4.3	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 4	0.0 45	64.127	0.9	0.05	5.8	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 6	0.0 36	64.169	0.8	0.03	3.7	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 0	0.0 40	69.953	0.8	0.04	4.8	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 2	0.0 33	70.019	0.7	0.02	3.1	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 5	0.0 35	79.091	0.8	0.03	3.6	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 8	0.0 28	79.181	0.7	0.02	2.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 0	0.0 31	89.699	0.7	0.02	2.7	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 4	0.0 25	89.801	0.6	0.01	1.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 7	0.0 28	98.255	0.7	0.02	2.2	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 2	0.0 23	98.363	0.6	0.01	1.4	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 4	0.0 25	113.25 5	0.6	0.01	1.7	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 9	0.0 20	113.36 3	0.5	0.01	1.1	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 2	0.0 23	126.35 3	0.6	0.01	1.4	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 8	0.0 18	125.56 7	0.5	0.01	0.9	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 1	0.0 21	138.38 9	0.6	0.01	1.3	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 7	0.0 17	138.28 1	0.5	0.01	0.8	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.64 9	0.0 20	149.15 3	0.5	0.01	1.1	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 6	0.0 16	150.13 7	0.5	0.01	0.7	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.64 9	0.0 19	159.55 7	0.5	0.01	1.0	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 5	0.0 16	158.62 7	0.5	0.01	0.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-5.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S08-5	S07-5	28.888	28.307	0.063	0.698	0.1	0.01	1.5	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S08-5	S07-5	28.888	28.306	0.061	0.698	0.1	0.01	1.4	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S08-5	S07-5	28.888	28.303	0.052	0.894	0.1	0.01	1.0	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S08-5	S07-5	28.888	28.303	0.050	0.894	0.1	0.01	1.0	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S08-5	S07-5	28.888	28.302	0.048	1.116	0.1	0.01	0.9	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S08-5	S07-5	28.888	28.300	0.043	1.110	0.1	0.01	0.7	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S08-5	S07-5	28.888	28.300	0.042	1.434	0.1	0.01	0.7	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S08-5	S07-5	28.888	28.298	0.036	1.434	0.1	0	0.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S08-5	S07-5	28.888	28.299	0.038	1.644	0.1	0	0.5	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S08-5	S07-5	28.888	28.297	0.032	1.656	0.1	0	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 35	1.806	0.1	0	0.5	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 29	1.806	0.1	0	0.3	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 31	2.040	0.1	0	0.4	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 25	2.058	0.1	0	0.2	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 29	2.244	0.1	0	0.3	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	2.232	0.1	0	0.2	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 27	2.388	0.1	0	0.3	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 22	2.418	0.1	0	0.2	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 25	2.520	0.1	0	0.2	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 20	2.580	0.1	0	0.2	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	2.790	0.1	0	0.2	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	2.760	0.1	0	0.1	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 20	3.090	0.1	0	0.1	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	3.192	0.1	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	3.522	0.1	0	0.1	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	3.498	0.1	0	0.1	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	3.942	0.1	0	0.1	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	3.900	0.1	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	4.872	0.1	0	0.1	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 11	4.614	0.1	0	0.0	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	5.388	0.1	0	0.1	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 10	5.322	0.1	0	0.0	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 12	5.436	0.1	0	0.1	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 8	0.0 10	5.880	0.0	0	0.0	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 11	5.592	0.1	0	0.0	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 8	0.0 09	6.324	0.0	0	0.0	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 11	5.808	0.1	0	0.0	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 8	0.0 09	5.688	0.0	0	0.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-3.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S10-5	S09-5	28.560	26.720	0.131	7.816	0.5	0.21	13.3	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S10-5	S09-5	28.560	26.716	0.127	7.809	0.5	0.2	12.7	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S10-5	S09-5	28.560	26.704	0.114	10.067	0.5	0.18	11.6	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S10-5	S09-5	28.560	26.700	0.110	10.055	0.5	0.17	10.9	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S10-5	S09-5	28.560	26.694	0.104	12.491	0.5	0.16	10.0	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S10-5	S09-5	28.560	26.682	0.091	12.497	0.4	0.13	8.0	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S10-5	S09-5	28.560	26.680	0.089	16.142	0.4	0.12	7.7	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S10-5	S09-5	28.560	26.666	0.073	16.136	0.4	0.09	5.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S10-5	S09-5	28.560	26.670	0.079	18.531	0.4	0.1	6.2	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S10-5	S09-5	28.560	26.658	0.064	18.513	0.4	0.07	4.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.66 4	0.0 71	20.337	0.4	0.08	5.3	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.65 3	0.0 58	20.350	0.4	0.06	3.6	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.65 7	0.0 63	23.091	0.4	0.06	4.1	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.64 7	0.0 51	23.128	0.3	0.04	2.7	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.65 3	0.0 57	25.276	0.4	0.05	3.4	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.64 4	0.0 46	25.258	0.3	0.04	2.2	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.64 9	0.0 53	27.046	0.4	0.05	3.0	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.64 1	0.0 43	27.010	0.3	0.03	1.9	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.64 7	0.0 50	28.559	0.3	0.04	2.6	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.63 9	0.0 40	28.535	0.3	0.03	1.7	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.64 3	0.0 45	31.157	0.3	0.03	2.1	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.63 6	0.0 36	31.169	0.3	0.02	1.4	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.63 8	0.0 39	35.255	0.3	0.03	1.6	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.63 2	0.0 32	35.213	0.3	0.02	1.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.63 4	0.0 34	39.953	0.3	0.02	1.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 9	0.0 28	40.055	0.2	0.01	0.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.63 2	0.0 31	43.787	0.3	0.02	1.0	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 7	0.0 25	43.727	0.2	0.01	0.6	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.62 9	0.0 27	50.296	0.2	0.01	0.8	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 4	0.0 22	50.579	0.2	0.01	0.5	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.62 7	0.0 25	56.123	0.2	0.01	0.6	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 3	0.0 20	55.775	0.2	0.01	0.4	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.62 6	0.0 24	61.595	0.2	0.01	0.6	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 2	0.0 19	61.415	0.2	0.01	0.4	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.62 5	0.0 22	66.341	0.2	0.01	0.5	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 1	0.0 18	66.569	0.2	0.01	0.3	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.62 4	0.0 22	70.889	0.2	0.01	0.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.62 0	0.0 18	70.667	0.2	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-3.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S09-5	Tank	28.846	26.706	0.139	15.600	0.9	0.41	28.9	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S09-5	Tank	28.846	26.702	0.135	15.603	0.9	0.39	27.5	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S09-5	Tank	28.846	26.688	0.123	20.081	0.9	0.33	23.2	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S09-5	Tank	28.846	26.683	0.119	20.069	0.8	0.31	21.8	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S09-5	Tank	28.846	26.678	0.113	24.910	0.8	0.28	19.9	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S09-5	Tank	28.846	26.664	0.101	24.928	0.8	0.23	16.0	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S09-5	Tank	28.846	26.661	0.098	32.186	0.8	0.22	15.3	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S09-5	Tank	28.846	26.644	0.083	32.186	0.7	0.16	11.0	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S09-5	Tank	28.846	26.650	0.088	36.951	0.7	0.18	12.4	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S09-5	Tank	28.846	26.634	0.072	36.945	0.6	0.12	8.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.64 2	0.0 81	40.581	0.7	0.15	10.5	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.62 6	0.0 66	40.575	0.6	0.1	7.1	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.63 2	0.0 71	46.069	0.6	0.12	8.2	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.61 7	0.0 57	46.069	0.6	0.08	5.4	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.62 5	0.0 65	50.387	0.6	0.1	6.8	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.61 2	0.0 52	50.369	0.5	0.06	4.4	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.62 0	0.0 60	53.938	0.6	0.08	5.9	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.60 8	0.0 48	53.854	0.5	0.05	3.8	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.61 6	0.0 56	56.949	0.6	0.07	5.2	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.60 4	0.0 44	56.943	0.5	0.05	3.3	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.61 1	0.0 50	62.102	0.5	0.06	4.2	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.60 0	0.0 40	62.127	0.5	0.04	2.7	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.60 3	0.0 43	70.304	0.5	0.05	3.2	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.59 4	0.0 37	70.233	0.4	0.03	2.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.59 8	0.0 43	79.738	0.5	0.03	2.4	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.59 0	0.0 31	79.818	0.4	0.02	1.6	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.59 4	0.0 38	87.347	0.4	0.03	2.0	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.58 7	0.0 28	87.205	0.4	0.02	1.3	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.58 9	0.0 30	100.28 5	0.4	0.02	1.5	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.58 3	0.0 24	100.79 1	0.4	0.01	1.0	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.58 7	0.0 27	111.83 0	0.4	0.02	1.3	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.58 1	0.0 22	111.20 7	0.4	0.01	0.8	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.58 5	0.0 26	122.58 9	0.4	0.02	1.1	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.58 0	0.0 20	122.38 5	0.3	0.01	0.7	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.58 4	0.0 24	132.36 9	0.4	0.01	1.0	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.57 9	0.0 19	132.61 5	0.3	0.01	0.6	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.58 3	0.0 23	141.53 7	0.4	0.01	0.9	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.57 8	0.0 19	141.18 3	0.3	0.01	0.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-3.0003--5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S12-5	S11-5	28.755	27.103	0.087	7.859	1.2	0.3	17.5	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S12-5	S11-5	28.755	27.099	0.084	7.853	1.2	0.28	16.4	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S12-5	S11-5	28.755	27.084	0.070	10.079	1.1	0.2	11.6	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S12-5	S11-5	28.755	27.081	0.067	10.067	1.1	0.19	10.9	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S12-5	S11-5	28.755	27.078	0.064	12.497	1.1	0.17	10.0	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S12-5	S11-5	28.755	27.071	0.057	12.503	1.0	0.14	8.0	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S12-5	S11-5	28.755	27.069	0.056	16.145	1.0	0.13	7.7	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S12-5	S11-5	28.755	27.060	0.047	16.139	0.9	0.09	5.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S12-5	S11-5	28.755	27.063	0.050	18.533	0.9	0.11	6.2	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S12-5	S11-5	28.755	27.054	0.042	18.515	0.8	0.07	4.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 9	0.0 46	20.339	0.9	0.09	5.3	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 1	0.0 38	20.351	0.8	0.06	3.5	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 3	0.0 41	23.093	0.8	0.07	4.1	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 6	0.0 33	23.129	0.7	0.05	2.7	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 0	0.0 37	25.277	0.8	0.06	3.4	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 3	0.0 30	25.259	0.7	0.04	2.2	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.04 7	0.0 35	27.047	0.8	0.05	3.0	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 0	0.0 28	27.011	0.7	0.03	1.9	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.04 5	0.0 33	28.559	0.7	0.04	2.6	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 9	0.0 26	28.535	0.6	0.03	1.7	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.04 2	0.0 30	31.157	0.7	0.04	2.1	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 6	0.0 24	31.169	0.6	0.02	1.4	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 8	0.0 26	35.255	0.6	0.03	1.6	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 3	0.0 21	35.213	0.6	0.02	1.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 5	0.0 22	39.953	0.6	0.02	1.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 0	0.0 18	40.055	0.5	0.01	0.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 3	0.0 20	43.787	0.5	0.02	1.0	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 9	0.0 17	43.727	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 0	0.0 18	50.297	0.5	0.01	0.8	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 7	0.0 15	50.579	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.02 9	0.0 17	56.123	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 6	0.0 14	55.775	0.4	0.01	0.4	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.02 8	0.0 16	61.595	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 5	0.0 13	61.415	0.4	0.01	0.4	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.02 7	0.0 15	66.341	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 4	0.0 12	66.569	0.4	0.01	0.3	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.02 6	0.0 14	70.889	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 4	0.0 12	70.667	0.4	0.01	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-4.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S13-5	S09-5	28.754	27.029	0.085	7.756	1.2	0.29	17.1	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S13-5	S09-5	28.754	27.026	0.083	7.782	1.2	0.28	16.1	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S13-5	S09-5	28.754	27.011	0.069	10.013	1.1	0.2	11.6	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S13-5	S09-5	28.754	27.009	0.067	10.013	1.1	0.19	10.9	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S13-5	S09-5	28.754	27.006	0.064	12.419	1.1	0.17	9.9	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S13-5	S09-5	28.754	26.999	0.057	12.431	1.0	0.14	8.0	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S13-5	S09-5	28.754	26.997	0.055	16.043	1.0	0.13	7.6	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S13-5	S09-5	28.754	26.988	0.047	16.049	0.9	0.09	5.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S13-5	S09-5	28.754	26.991	0.050	18.419	0.9	0.11	6.2	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S13-5	S09-5	28.754	26.983	0.041	18.431	0.8	0.07	4.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.98 7	0.0 46	20.243	0.9	0.09	5.2	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 9	0.0 38	20.225	0.8	0.06	3.5	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.98 2	0.0 40	22.979	0.8	0.07	4.1	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 4	0.0 33	22.943	0.7	0.05	2.7	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 8	0.0 37	25.115	0.8	0.06	3.4	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 1	0.0 30	25.115	0.7	0.04	2.2	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 6	0.0 34	26.897	0.8	0.05	2.9	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 9	0.0 28	26.849	0.7	0.03	1.9	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 4	0.0 32	28.397	0.7	0.04	2.6	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 7	0.0 26	28.415	0.6	0.03	1.7	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 1	0.0 29	30.953	0.7	0.04	2.1	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 5	0.0 24	30.965	0.6	0.02	1.4	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 7	0.0 26	35.057	0.6	0.03	1.6	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 2	0.0 21	35.027	0.6	0.02	1.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 4	0.0 22	39.791	0.6	0.02	1.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 9	0.0 18	39.767	0.5	0.01	0.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 2	0.0 20	43.565	0.6	0.02	1.0	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 8	0.0 17	43.481	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 9	0.0 18	49.991	0.5	0.01	0.8	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 6	0.0 15	50.213	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 8	0.0 17	55.709	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 5	0.0 14	55.433	0.4	0.01	0.4	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 7	0.0 16	60.995	0.5	0.01	0.6	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 4	0.0 13	60.971	0.4	0.01	0.4	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 6	0.0 15	66.029	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 3	0.0 12	66.047	0.4	0.01	0.3	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 5	0.0 14	70.649	0.4	0.01	0.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 3	0.0 12	70.517	0.4	0.01	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-1.004-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	Tank	S04-5	28.670	26.379	0.118	2.148	0.1	0.04	1.8	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	Tank	S04-5	28.670	26.379	0.118	2.148	0.1	0.04	1.8	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	Tank	S04-5	28.670	26.408	0.148	5.191	0.3	0.05	2.0	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	Tank	S04-5	28.670	26.408	0.148	5.196	0.3	0.05	2.0	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	Tank	S04-5	28.670	26.439	0.178	11.417	0.2	0.05	2.1	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	Tank	S04-5	28.670	26.439	0.179	11.453	0.2	0.05	2.1	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	Tank	S04-5	28.670	26.483	0.223	24.649	0.2	0.05	2.2	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	Tank	S04-5	28.670	26.483	0.223	24.781	0.2	0.05	2.2	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	Tank	S04-5	28.670	26.509	0.225	38.084	0.2	0.06	2.2	Sur charged
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	Tank	S04-5	28.670	26.509	0.225	38.318	0.2	0.06	2.2	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.52 6	0.2 25	51.623	0.2	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.52 6	0.2 25	51.960	0.2	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.54 8	0.2 25	78.729	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.54 9	0.2 25	79.265	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.56 2	0.2 25	105.73 9	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.56 2	0.2 25	106.45 8	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.57 0	0.2 25	132.54 2	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.57 1	0.2 25	133.42 6	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.57 5	0.2 25	158.89 3	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.57 6	0.2 25	159.98 4	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.58 3	0.2 25	209.54 1	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.58 0	0.2 25	210.91 1	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.59 0	0.2 25	287.55 5	0.2	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.58 4	0.2 25	288.49 8	0.1	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.59 1	0.2 25	351.88 3	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.57 7	0.2 25	352.22 0	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.58 6	0.2 25	392.95 1	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.56 4	0.2 25	393.38 6	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.57 1	0.2 25	453.88 2	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.53 4	0.2 25	454.16 8	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.55 7	0.2 25	506.80 5	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.50 6	0.2 25	504.64 0	0.1	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.54 3	0.2 25	555.02 3	0.1	0.06	2.3	Sur char ged
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.48 2	0.2 22	554.28 8	0.1	0.05	2.2	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.52 9	0.2 25	599.44 8	0.1	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.46 2	0.2 01	600.66 1	0.1	0.05	2.1	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.51 8	0.2 25	642.54 8	0.1	0.06	2.2	Sur char ged
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.44 4	0.1 83	641.87 1	0.1	0.05	2.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Sw-3.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 2 years: +0 %: 15 mins: Summer	Pipe	S11-5	S10-5	28.558	26.866	0.111	7.883	0.7	0.27	16.3	OK
FEH: 2 years: +0 %: 15 mins: Winter	Pipe	S11-5	S10-5	28.558	26.862	0.107	7.876	0.7	0.25	15.3	OK
FEH: 2 years: +0 %: 30 mins: Summer	Pipe	S11-5	S10-5	28.558	26.846	0.093	10.100	0.6	0.19	11.6	OK
FEH: 2 years: +0 %: 30 mins: Winter	Pipe	S11-5	S10-5	28.558	26.844	0.090	10.087	0.6	0.18	10.9	OK
FEH: 2 years: +0 %: 60 mins: Summer	Pipe	S11-5	S10-5	28.558	26.840	0.085	12.513	0.6	0.16	10.0	OK
FEH: 2 years: +0 %: 60 mins: Winter	Pipe	S11-5	S10-5	28.558	26.832	0.075	12.517	0.6	0.13	8.0	OK
FEH: 2 years: +0 %: 120 mins: Summer	Pipe	S11-5	S10-5	28.558	26.830	0.073	16.157	0.6	0.13	7.7	OK
FEH: 2 years: +0 %: 120 mins: Winter	Pipe	S11-5	S10-5	28.558	26.820	0.061	16.149	0.5	0.09	5.5	OK
FEH: 2 years: +0 %: 180 mins: Summer	Pipe	S11-5	S10-5	28.558	26.823	0.065	18.543	0.6	0.1	6.2	OK
FEH: 2 years: +0 %: 180 mins: Winter	Pipe	S11-5	S10-5	28.558	26.813	0.053	18.523	0.5	0.07	4.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 2 years: +0 %: 240 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.81 8	0.0 59	20.347	0.5	0.09	5.3	OK
FEH: 2 years: +0 %: 240 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 8	0.0 49	20.358	0.5	0.06	3.6	OK
FEH: 2 years: +0 %: 360 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.81 1	0.0 52	23.100	0.5	0.07	4.1	OK
FEH: 2 years: +0 %: 360 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 2	0.0 43	23.134	0.4	0.04	2.7	OK
FEH: 2 years: +0 %: 480 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.80 7	0.0 48	25.283	0.5	0.06	3.4	OK
FEH: 2 years: +0 %: 480 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.79 8	0.0 39	25.264	0.4	0.04	2.2	OK
FEH: 2 years: +0 %: 600 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.80 3	0.0 45	27.053	0.4	0.05	3.0	OK
FEH: 2 years: +0 %: 600 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.79 5	0.0 36	27.015	0.4	0.03	1.9	OK
FEH: 2 years: +0 %: 720 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.80 1	0.0 42	28.564	0.4	0.04	2.6	OK
FEH: 2 years: +0 %: 720 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.79 3	0.0 34	28.538	0.4	0.03	1.7	OK
FEH: 2 years: +0 %: 960 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.79 7	0.0 38	31.162	0.4	0.03	2.1	OK
FEH: 2 years: +0 %: 960 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.78 9	0.0 31	31.172	0.4	0.02	1.4	OK
FEH: 2 years: +0 %: 1440 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.79 2	0.0 33	35.259	0.4	0.03	1.6	OK
FEH: 2 years: +0 %: 1440 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.78 5	0.0 27	35.215	0.3	0.02	1.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 2 years: +0 %: 2160 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 8	0.0 29	39.956	0.3	0.02	1.2	OK
FEH: 2 years: +0 %: 2160 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.78 2	0.0 24	40.056	0.3	0.01	0.8	OK
FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 5	0.0 26	43.790	0.3	0.02	1.0	OK
FEH: 2 years: +0 %: 2880 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.78 0	0.0 22	43.728	0.3	0.01	0.6	OK
FEH: 2 years: +0 %: 4320 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 2	0.0 23	50.299	0.3	0.01	0.8	OK
FEH: 2 years: +0 %: 4320 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 7	0.0 19	50.580	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 5760 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 0	0.0 22	56.125	0.3	0.01	0.6	OK
FEH: 2 years: +0 %: 5760 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 6	0.0 18	55.776	0.2	0.01	0.4	OK
FEH: 2 years: +0 %: 7200 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.77 9	0.0 20	61.597	0.3	0.01	0.6	OK
FEH: 2 years: +0 %: 7200 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 5	0.0 17	61.416	0.2	0.01	0.4	OK
FEH: 2 years: +0 %: 8640 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.77 8	0.0 19	66.343	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 8640 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 4	0.0 16	66.570	0.2	0.01	0.3	OK
FEH: 2 years: +0 %: 10080 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.77 7	0.0 19	70.891	0.3	0.01	0.5	OK
FEH: 2 years: +0 %: 10080 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 4	0.0 15	70.668	0.2	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.003-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S03-5	Tank	28.711	27.129	0.300	75.326	1.8	1.82	128.9	Surcharged
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S03-5	Tank	28.711	27.111	0.300	75.322	1.7	1.74	123.1	Surcharged
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S03-5	Tank	28.711	27.080	0.300	98.392	1.6	1.59	112.4	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S03-5	Tank	28.711	27.061	0.300	98.383	1.5	1.49	105.3	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S03-5	Tank	28.711	27.030	0.288	123.171	1.4	1.38	97.4	Surcharged
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S03-5	Tank	28.711	26.968	0.245	123.179	1.3	1.1	78.0	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S03-5	Tank	28.711	26.942	0.225	144.638	1.2	0.97	68.3	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S03-5	Tank	28.711	26.896	0.186	144.620	1.1	0.7	49.4	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S03-5	Tank	28.711	26.905	0.195	159.070	1.1	0.75	53.3	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S03-5	Tank	28.711	26.863	0.158	159.088	1.0	0.52	36.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.88 2	0.1 75	170.23 8	1.0	0.62	44. 1	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.84 4	0.1 40	170.21 8	0.9	0.42	29. 7	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.85 4	0.1 49	187.32 1	0.9	0.47	33. 2	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.82 0	0.1 19	187.35 0	0.8	0.31	21. 8	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.83 7	0.1 34	200.73 0	0.9	0.39	27. 2	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.80 6	0.1 06	200.76 5	0.8	0.25	17. 6	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.82 4	0.1 22	211.95 8	0.9	0.33	23. 1	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.79 9	0.1 16	211.95 1	0.8	0.21	14. 9	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.81 5	0.1 26	221.81 7	0.8	0.28	20. 1	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.80 9	0.1 26	221.75 8	0.7	0.18	13. 0	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.82 0	0.1 38	238.43 3	0.8	0.23	16. 2	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.82 1	0.1 38	238.41 8	0.7	0.15	10. 5	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.82 6	0.1 44	265.01 0	0.7	0.17	12. 0	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.82 7	0.1 44	264.90 0	0.6	0.11	7.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.82 5	0.1 43	295.46 9	0.7	0.13	8.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.81 8	0.1 36	295.09 6	0.6	0.08	5.8	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.82 0	0.1 37	320.28 6	0.6	0.1	7.3	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.80 7	0.1 24	320.05 3	0.6	0.07	4.7	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.80 3	0.1 20	361.09 6	0.6	0.08	5.5	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.77 3	0.0 90	361.16 6	0.5	0.05	3.5	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.78 4	0.1 01	396.26 5	0.5	0.06	4.5	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 8	0.0 53	396.30 0	0.5	0.04	2.9	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.76 7	0.0 84	428.36 2	0.5	0.06	3.9	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 5	0.0 39	428.76 5	0.5	0.04	2.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.74 9	0.0 66	458.27 9	0.5	0.05	3.5	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 3	0.0 36	459.26 6	0.5	0.03	2.2	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.74 0	0.0 52	487.69 9	0.5	0.04	3.2	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.73 1	0.0 35	488.16 2	0.4	0.03	2.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-5.001-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.948	0.173	17.079	0.8	0.51	35.7	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.943	0.167	17.082	0.8	0.48	33.8	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.919	0.140	22.303	0.8	0.36	25.7	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.914	0.134	22.297	0.8	0.34	24.2	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.909	0.128	27.921	0.8	0.32	22.3	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.895	0.113	27.910	0.7	0.25	18.0	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.887	0.104	32.777	0.7	0.22	15.6	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.872	0.087	32.771	0.7	0.16	11.2	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.875	0.091	36.047	0.7	0.17	12.1	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.861	0.074	36.065	0.6	0.12	8.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.86 8	0.0 82	38.585	0.6	0.14	10.0	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.85 4	0.0 67	38.586	0.6	0.1	6.7	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.85 8	0.0 71	42.456	0.6	0.11	7.5	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 5	0.0 57	42.432	0.5	0.07	4.9	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.85 1	0.0 64	45.498	0.6	0.09	6.2	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 0	0.0 51	45.552	0.5	0.06	4.0	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 7	0.0 59	48.054	0.5	0.07	5.2	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 6	0.0 47	48.072	0.5	0.05	3.4	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 3	0.0 55	50.280	0.5	0.06	4.6	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 3	0.0 44	50.250	0.5	0.04	2.9	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 8	0.0 49	54.042	0.5	0.05	3.7	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 9	0.0 40	53.988	0.4	0.03	2.4	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 2	0.0 42	60.072	0.4	0.04	2.7	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 4	0.0 34	60.030	0.4	0.02	1.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 7	0.0 37	67.050	0.4	0.03	2.0	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 0	0.0 30	66.948	0.4	0.02	1.3	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 3	0.0 33	72.390	0.4	0.02	1.6	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 27	72.594	0.3	0.02	1.1	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 9	0.0 29	81.768	0.4	0.02	1.2	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 4	0.0 23	81.774	0.3	0.01	0.8	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 7	0.0 26	90.078	0.3	0.01	1.0	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 2	0.0 21	89.994	0.3	0.01	0.6	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 5	0.0 25	97.716	0.3	0.01	0.9	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 1	0.0 20	97.380	0.3	0.01	0.6	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 4	0.0 23	104.34 0	0.3	0.01	0.8	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 0	0.0 19	104.41 8	0.3	0.01	0.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 3	0.0 22	111.54 0	0.3	0.01	0.7	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.80 9	0.0 18	111.27 0	0.3	0.01	0.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.000-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.647	0.300	2.463	0.4	0.3	21.5	Surcharged
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.539	0.300	2.452	0.3	0.28	20.0	Surcharged
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.383	0.300	3.159	0.2	0.1	6.9	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.324	0.300	3.141	0.2	0.11	7.5	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.252	0.300	3.935	0.2	0.1	7.3	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.119	0.212	3.938	0.2	0.07	4.8	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.061	0.154	4.632	0.1	0.03	2.1	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.019	0.100	4.634	0.1	0.02	1.6	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.020	0.106	5.091	0.1	0.02	1.7	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.015	0.081	5.104	0.1	0.02	1.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.01 7	0.0 92	5.458	0.1	0.02	1.4	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.01 2	0.0 70	5.460	0.1	0.01	0.9	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.01 4	0.0 75	6.006	0.1	0.01	1.1	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 9	0.0 58	6.007	0.1	0.01	0.7	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.01 2	0.0 66	6.432	0.1	0.01	0.9	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 8	0.0 51	6.464	0.1	0.01	0.6	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.01 0	0.0 60	6.793	0.1	0.01	0.7	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 6	0.0 47	6.789	0.1	0.01	0.5	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 9	0.0 55	7.117	0.1	0.01	0.6	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 5	0.0 43	7.083	0.1	0.01	0.4	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 7	0.0 49	7.658	0.1	0.01	0.5	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 4	0.0 39	7.665	0.1	0	0.3	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 5	0.0 42	8.505	0.1	0.01	0.4	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 2	0.0 34	8.458	0.1	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 3	0.0 36	9.501	0.1	0	0.3	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.00 0	0.0 29	9.382	0.1	0	0.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 1	0.0 32	10.197	0.1	0	0.2	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 9	0.0 26	10.396	0.1	0	0.2	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.00 0	0.0 28	11.667	0.1	0	0.2	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 23	11.602	0.0	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 8	0.0 26	12.574	0.0	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 6	0.0 20	12.983	0.0	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 24	13.486	0.0	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 6	0.0 19	13.475	0.0	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 22	14.410	0.0	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 18	14.405	0.0	0	0.1	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	26.99 7	0.0 21	15.478	0.0	0	0.1	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	26.99 5	0.0 17	15.353	0.0	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.614	0.300	50.076	1.2	1.24	87.3	Surcharged
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.509	0.300	50.073	1.1	1.1	77.9	Surcharged
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.382	0.300	65.338	1.1	1.06	74.6	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.323	0.300	65.334	1.0	0.99	69.8	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.252	0.300	81.762	0.9	0.92	64.7	Surcharged
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.118	0.300	81.761	0.7	0.73	51.7	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.060	0.255	96.005	0.7	0.64	45.4	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	26.994	0.191	95.999	0.7	0.46	32.8	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.006	0.203	105.581	0.7	0.5	35.4	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	26.959	0.154	105.599	0.7	0.35	24.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.97 9	0.1 76	113.01 5	0.7	0.41	29. 3	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.94 1	0.1 34	113.00 9	0.6	0.28	19. 7	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.95 0	0.1 44	124.33 8	0.7	0.31	22. 0	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.92 0	0.1 11	124.35 6	0.6	0.21	14. 5	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.93 4	0.1 27	133.26 4	0.6	0.26	18. 1	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.90 8	0.0 98	133.27 6	0.6	0.17	11. 7	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.92 3	0.1 14	140.71 3	0.6	0.22	15. 3	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.90 0	0.0 89	140.71 3	0.6	0.14	9.9	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.91 5	0.1 05	147.24 2	0.6	0.19	13. 4	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.89 5	0.0 82	147.19 5	0.6	0.12	8.6	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.90 4	0.0 93	158.30 8	0.6	0.15	10. 8	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.88 7	0.0 73	158.26 0	0.5	0.1	6.9	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.89 2	0.0 78	175.86 5	0.5	0.11	8.0	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 8	0.0 62	175.85 9	0.5	0.07	5.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.88 2	0.0 67	196.08 9	0.5	0.08	5.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 1	0.0 54	195.89 7	0.4	0.05	3.8	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 7	0.0 60	212.42 9	0.5	0.07	4.8	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 7	0.0 48	212.55 9	0.4	0.04	3.1	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.87 0	0.0 52	239.83 9	0.4	0.05	3.6	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 1	0.0 42	239.70 5	0.4	0.03	2.3	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 6	0.0 47	262.87 8	0.4	0.04	3.0	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 8	0.0 38	263.12 9	0.4	0.03	1.9	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 3	0.0 44	284.33 9	0.4	0.04	2.6	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 6	0.0 35	284.31 5	0.4	0.02	1.7	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.86 1	0.0 42	304.10 3	0.4	0.03	2.3	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 4	0.0 34	304.19 3	0.3	0.02	1.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 9	0.0 40	323.69 3	0.4	0.03	2.1	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.85 3	0.0 32	324.27 5	0.3	0.02	1.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.439	0.300	75.413	2.0	1.95	138.2	Surcharged
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.371	0.300	75.412	1.8	1.81	128.1	Surcharged
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.271	0.300	98.429	1.6	1.59	112.7	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.227	0.300	98.422	1.5	1.49	105.6	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.171	0.300	123.188	1.4	1.38	97.7	Surcharged
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.065	0.295	123.198	1.1	1.1	78.2	Surcharged
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.023	0.261	144.657	1.0	0.97	68.4	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.960	0.206	144.638	1.0	0.7	49.4	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S03 - 5	S03-5	28.792	26.972	0.217	159.100	1.0	0.75	53.3	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.921	0.171	159.117	0.9	0.52	36.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.94 4	0.1 92	170.28 0	0.9	0.62	44. 1	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.89 9	0.1 50	170.26 1	0.8	0.42	29. 7	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.91 0	0.1 60	187.37 3	0.9	0.47	33. 2	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.87 4	0.1 25	187.40 2	0.8	0.31	21. 8	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.89 2	0.1 43	200.78 4	0.8	0.38	27. 2	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.85 9	0.1 11	200.82 0	0.7	0.25	17. 6	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.87 8	0.1 29	212.01 0	0.8	0.33	23. 1	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.84 9	0.1 01	212.00 4	0.7	0.21	14. 9	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.86 8	0.1 20	221.86 9	0.8	0.28	20. 1	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.84 1	0.0 94	221.80 8	0.7	0.18	13. 0	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.85 4	0.1 06	238.48 3	0.7	0.23	16. 2	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.83 1	0.1 00	238.46 4	0.7	0.15	10. 5	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.83 7	0.1 05	265.05 7	0.7	0.17	12. 0	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.82 7	0.1 06	264.94 2	0.6	0.11	7.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.82 6	0.1 04	295.51 3	0.6	0.13	8.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.81 9	0.0 97	295.13 3	0.6	0.08	5.8	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.82 0	0.0 98	320.32 5	0.6	0.1	7.3	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.80 7	0.0 85	320.08 6	0.5	0.07	4.7	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.80 7	0.0 82	361.12 1	0.6	0.08	5.5	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.79 5	0.0 53	361.18 4	0.5	0.05	3.5	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.80 1	0.0 64	396.28 6	0.5	0.06	4.5	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.79 0	0.0 43	396.31 2	0.5	0.04	2.9	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.79 7	0.0 50	428.37 9	0.5	0.05	3.9	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 7	0.0 40	428.77 2	0.4	0.04	2.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.79 4	0.0 47	458.29 4	0.5	0.05	3.5	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 5	0.0 38	459.27 0	0.4	0.03	2.2	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.79 2	0.0 45	487.71 1	0.5	0.04	3.2	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.78 4	0.0 36	488.16 6	0.4	0.03	2.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-2.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.660	0.300	2.462	0.5	0.02	1.7	Flood Risk
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.549	0.300	2.453	0.6	0.02	1.8	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.384	0.264	3.176	0.5	0.03	3.5	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.325	0.205	3.167	0.5	0.03	3.3	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.283	0.148	3.956	0.5	0.03	3.2	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.280	0.080	3.958	0.5	0.02	2.5	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.279	0.050	4.646	0.5	0.02	2.2	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.275	0.028	4.645	0.5	0.01	1.6	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.276	0.029	5.101	0.5	0.02	1.7	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.272	0.024	5.113	0.4	0.01	1.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 4	0.0 26	5.467	0.5	0.01	1.4	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 0	0.0 22	5.466	0.4	0.01	0.9	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 1	0.0 23	6.012	0.4	0.01	1.1	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 7	0.0 19	6.012	0.4	0.01	0.7	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 9	0.0 21	6.438	0.4	0.01	0.9	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 6	0.0 17	6.468	0.4	0.01	0.6	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 8	0.0 19	6.798	0.4	0.01	0.7	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 5	0.0 16	6.792	0.3	0	0.5	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 7	0.0 18	7.122	0.4	0.01	0.6	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 4	0.0 15	7.086	0.3	0	0.4	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 5	0.0 16	7.662	0.3	0	0.5	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 14	7.668	0.3	0	0.3	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 3	0.0 14	8.508	0.3	0	0.4	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 1	0.0 12	8.460	0.3	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 13	9.504	0.3	0	0.3	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 10	9.384	0.2	0	0.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 0	0.0 11	10.200	0.3	0	0.2	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 09	10.398	0.2	0	0.2	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 10	11.670	0.2	0	0.2	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 08	11.604	0.2	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 09	12.576	0.2	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 07	12.984	0.2	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 08	13.488	0.2	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	13.476	0.2	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 08	14.412	0.2	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	14.406	0.2	0	0.1	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 07	15.480	0.2	0	0.1	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 6	0.0 06	15.354	0.2	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.005 - 5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S04-5	EX	28.502	26.488	0.037	2.637	0.5	0.06	2.2	Surcharged
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S04-5	EX	28.502	26.488	0.037	2.648	0.5	0.06	2.2	Surcharged
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S04-5	EX	28.502	26.554	0.037	6.099	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S04-5	EX	28.502	26.554	0.037	6.125	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S04-5	EX	28.502	26.623	0.038	12.987	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S04-5	EX	28.502	26.623	0.038	13.077	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S04-5	EX	28.502	26.677	0.038	26.772	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S04-5	EX	28.502	26.677	0.038	26.958	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S04-5	EX	28.502	26.709	0.038	40.549	0.5	0.06	2.3	Surcharged
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S04-5	EX	28.502	26.709	0.038	40.826	0.5	0.06	2.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S04-5	EX	28.50 2	26.73 3	0.0 38	54.328	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S04-5	EX	28.50 2	26.73 3	0.0 38	54.689	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S04-5	EX	28.50 2	26.76 4	0.0 38	81.853	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S04-5	EX	28.50 2	26.76 4	0.0 38	82.388	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S04-5	EX	28.50 2	26.78 4	0.0 38	109.41 8	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S04-5	EX	28.50 2	26.78 4	0.0 38	110.13 6	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S04-5	EX	28.50 2	26.79 8	0.0 38	137.03 9	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S04-5	EX	28.50 2	26.79 8	0.0 38	137.94 8	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S04-5	EX	28.50 2	26.80 8	0.0 38	164.70 7	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S04-5	EX	28.50 2	26.80 8	0.0 38	165.82 5	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S04-5	EX	28.50 2	26.82 0	0.0 38	220.32 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S04-5	EX	28.50 2	26.82 0	0.0 38	221.89 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S04-5	EX	28.50 2	26.82 6	0.0 38	332.35 4	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S04-5	EX	28.50 2	26.82 6	0.0 38	334.96 5	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S04-5	EX	28.50 2	26.82 5	0.0 38	491.83 4	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S04-5	EX	28.50 2	26.81 8	0.0 38	495.04 0	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S04-5	EX	28.50 2	26.81 9	0.0 38	585.37 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S04-5	EX	28.50 2	26.80 6	0.0 38	586.54 9	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S04-5	EX	28.50 2	26.80 2	0.0 38	677.85 6	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S04-5	EX	28.50 2	26.77 2	0.0 38	677.69 4	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S04-5	EX	28.50 2	26.78 3	0.0 38	744.82 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S04-5	EX	28.50 2	26.73 4	0.0 38	745.68 9	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S04-5	EX	28.50 2	26.76 6	0.0 38	806.15 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S04-5	EX	28.50 2	26.69 8	0.0 38	806.24 7	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S04-5	EX	28.50 2	26.74 8	0.0 38	862.03 6	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S04-5	EX	28.50 2	26.66 4	0.0 38	863.40 8	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S04-5	EX	28.50 2	26.73 3	0.0 38	919.02 9	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S04-5	EX	28.50 2	26.63 3	0.0 38	918.68 7	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-5.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.819	0.178	35.244	1.7	0.59	73.9	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.812	0.171	35.246	1.7	0.56	69.8	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.781	0.144	46.016	1.6	0.43	53.1	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.775	0.139	46.010	1.6	0.4	49.8	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.769	0.133	57.598	1.5	0.37	46.1	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.752	0.117	57.586	1.4	0.3	37.1	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.742	0.108	67.625	1.4	0.26	32.1	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.723	0.090	67.619	1.3	0.19	23.1	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.727	0.094	74.369	1.3	0.2	24.9	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.709	0.077	74.399	1.2	0.14	17.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.71 7	0.0 85	79.613	1.2	0.17	20. 6	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.70 0	0.0 69	79.607	1.1	0.11	13. 9	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.70 5	0.0 73	87.605	1.2	0.12	15. 5	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.69 0	0.0 59	87.575	1.0	0.08	10. 2	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 7	0.0 66	93.863	1.1	0.1	12. 7	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 3	0.0 53	93.935	1.0	0.07	8.2	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 1	0.0 61	99.125	1.1	0.09	10. 8	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 9	0.0 49	99.179	0.9	0.06	7.0	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 7	0.0 57	103.72 1	1.0	0.08	9.4	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 5	0.0 46	103.65 5	0.9	0.05	6.1	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 1	0.0 51	111.49 7	1.0	0.06	7.6	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 1	0.0 41	111.39 5	0.8	0.04	4.9	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 4	0.0 44	123.92 9	0.9	0.05	5.6	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 5	0.0 35	123.74 9	0.8	0.03	3.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 8	0.0 38	138.24 5	0.8	0.03	4.2	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 0	0.0 31	138.01 7	0.7	0.02	2.7	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 4	0.0 34	149.44 7	0.8	0.03	3.4	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 7	0.0 28	149.71 1	0.7	0.02	2.2	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 9	0.0 30	169.00 1	0.7	0.02	2.6	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 4	0.0 24	168.74 3	0.6	0.01	1.6	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 7	0.0 27	185.39 9	0.7	0.02	2.1	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 1	0.0 22	185.79 5	0.6	0.01	1.3	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 5	0.0 25	200.86 7	0.6	0.01	1.8	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 0	0.0 21	200.44 7	0.6	0.01	1.2	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 3	0.0 24	214.37 3	0.6	0.01	1.6	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 9	0.0 20	214.52 9	0.5	0.01	1.0	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 2	0.0 23	229.01 3	0.6	0.01	1.5	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.64 8	0.0 19	228.47 9	0.5	0.01	0.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-5.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S08-5	S07-5	28.888	28.315	0.093	1.392	0.2	0.02	3.0	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S08-5	S07-5	28.888	28.315	0.090	1.391	0.2	0.02	2.8	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S08-5	S07-5	28.888	28.311	0.076	1.818	0.1	0.02	2.1	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S08-5	S07-5	28.888	28.310	0.074	1.818	0.1	0.02	2.0	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S08-5	S07-5	28.888	28.309	0.070	2.280	0.1	0.01	1.8	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S08-5	S07-5	28.888	28.307	0.063	2.274	0.1	0.01	1.5	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S08-5	S07-5	28.888	28.305	0.058	2.670	0.1	0.01	1.3	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S08-5	S07-5	28.888	28.302	0.049	2.664	0.1	0.01	0.9	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S08-5	S07-5	28.888	28.303	0.051	2.940	0.1	0.01	1.0	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S08-5	S07-5	28.888	28.300	0.042	2.946	0.1	0.01	0.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 2	0.0 46	3.156	0.1	0.01	0.8	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 38	3.150	0.1	0	0.5	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 40	3.468	0.1	0	0.6	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 33	3.462	0.1	0	0.4	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 36	3.720	0.1	0	0.5	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 30	3.744	0.1	0	0.3	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 34	3.942	0.1	0	0.4	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 27	3.930	0.1	0	0.3	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 31	4.104	0.1	0	0.4	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 26	4.086	0.1	0	0.2	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 28	4.410	0.1	0	0.3	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	4.374	0.1	0	0.2	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 25	4.902	0.1	0	0.2	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 20	4.950	0.1	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 21	5.538	0.1	0	0.2	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	5.514	0.1	0	0.1	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 19	5.778	0.1	0	0.1	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	6.048	0.1	0	0.1	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	6.594	0.1	0	0.1	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	6.570	0.1	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 15	7.542	0.1	0	0.1	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 12	7.326	0.1	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	8.466	0.1	0	0.1	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 12	8.046	0.1	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	9.138	0.1	0	0.1	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 11	8.922	0.1	0	0.0	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	9.804	0.1	0	0.1	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 11	9.672	0.1	0	0.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-3.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S10-5	S09-5	28.560	26.801	0.212	15.658	0.6	0.44	27.4	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S10-5	S09-5	28.560	26.794	0.204	15.654	0.5	0.42	26.2	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S10-5	S09-5	28.560	26.771	0.180	20.480	0.5	0.38	23.7	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S10-5	S09-5	28.560	26.763	0.173	20.480	0.5	0.35	22.2	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S10-5	S09-5	28.560	26.754	0.164	25.623	0.5	0.33	20.5	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S10-5	S09-5	28.560	26.732	0.142	25.630	0.5	0.26	16.5	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S10-5	S09-5	28.560	26.720	0.130	29.841	0.5	0.23	14.3	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S10-5	S09-5	28.560	26.696	0.106	29.838	0.5	0.16	10.3	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S10-5	S09-5	28.560	26.709	0.128	32.693	0.5	0.18	11.1	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S10-5	S09-5	28.560	26.709	0.128	32.685	0.4	0.12	7.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.73 3	0.1 51	34.918	0.5	0.15	9.2	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.73 3	0.1 51	34.918	0.4	0.1	6.2	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.76 4	0.1 82	38.395	0.4	0.11	6.9	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.76 4	0.1 82	38.403	0.4	0.07	4.6	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.78 4	0.2 02	41.224	0.4	0.09	5.7	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.78 4	0.2 03	41.263	0.4	0.06	3.7	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.79 8	0.2 16	43.641	0.4	0.08	4.8	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.79 8	0.2 17	43.689	0.4	0.05	3.1	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.80 8	0.2 26	45.818	0.4	0.07	4.2	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.80 8	0.2 27	45.846	0.3	0.04	2.7	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.82 0	0.2 38	49.579	0.4	0.05	3.4	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.82 0	0.2 39	49.552	0.3	0.03	2.2	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.82 6	0.2 44	55.195	0.3	0.04	2.5	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.82 6	0.2 45	55.087	0.3	0.03	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.82 5	0.2 43	61.543	0.3	0.03	1.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.81 8	0.2 36	61.440	0.3	0.02	1.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.81 9	0.2 38	66.678	0.3	0.02	1.5	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.80 6	0.2 24	66.558	0.3	0.02	1.0	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.80 2	0.2 20	75.222	0.3	0.02	1.1	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.77 2	0.1 90	75.209	0.2	0.01	0.7	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.78 3	0.2 02	82.544	0.3	0.01	0.9	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.73 4	0.1 52	82.676	0.2	0.01	0.6	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.76 6	0.1 85	89.252	0.2	0.01	0.8	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.69 8	0.1 17	89.414	0.2	0.01	0.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.74 8	0.1 66	95.204	0.2	0.01	0.7	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.66 4	0.0 82	95.497	0.2	0.01	0.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.73 3	0.1 51	101.73 8	0.2	0.01	0.7	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.63 4	0.0 52	101.72 4	0.2	0.01	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-3.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S09-5	Tank	28.846	26.786	0.209	31.250	1.1	0.85	60.2	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S09-5	Tank	28.846	26.778	0.203	31.238	1.1	0.81	57.1	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S09-5	Tank	28.846	26.753	0.182	40.773	1.1	0.67	47.2	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S09-5	Tank	28.846	26.746	0.175	40.791	1.0	0.63	44.3	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S09-5	Tank	28.846	26.738	0.168	50.910	1.0	0.58	40.9	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S09-5	Tank	28.846	26.716	0.149	50.947	0.9	0.47	32.9	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S09-5	Tank	28.846	26.704	0.137	59.444	0.9	0.4	28.5	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S09-5	Tank	28.846	26.679	0.129	59.429	0.8	0.29	20.5	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S09-5	Tank	28.846	26.710	0.162	65.160	0.8	0.31	22.1	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S09-5	Tank	28.846	26.710	0.162	65.149	0.8	0.22	15.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.73 3	0.1 85	69.640	0.8	0.26	18. 3	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.73 3	0.1 85	69.642	0.7	0.17	12. 3	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.76 4	0.2 16	76.624	0.7	0.19	13. 8	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.76 4	0.2 16	76.630	0.7	0.13	9.1	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.78 4	0.2 36	82.250	0.7	0.16	11. 3	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.78 5	0.2 37	82.270	0.6	0.1	7.3	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.79 8	0.2 50	87.040	0.7	0.14	9.6	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.79 8	0.2 51	87.077	0.6	0.09	6.2	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.80 8	0.2 60	91.339	0.6	0.12	8.4	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.80 9	0.2 61	91.375	0.6	0.08	5.4	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.82 0	0.2 72	98.692	0.6	0.1	6.7	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.82 1	0.2 73	98.705	0.5	0.06	4.4	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.82 6	0.2 78	110.01 9	0.6	0.07	5.0	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.82 7	0.2 79	109.85 0	0.5	0.05	3.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.82 5	0.2 77	122.71 3	0.5	0.05	3.7	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.81 8	0.2 70	122.65 6	0.5	0.03	2.4	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.81 9	0.2 72	132.89 1	0.5	0.04	3.0	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.80 6	0.2 58	132.89 3	0.4	0.03	1.9	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.80 2	0.2 54	150.06 4	0.5	0.03	2.3	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.77 2	0.2 24	149.98 8	0.4	0.02	1.5	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.78 3	0.2 36	164.45 2	0.4	0.03	1.9	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.73 4	0.1 86	164.85 5	0.4	0.02	1.2	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.76 7	0.2 19	177.88 1	0.4	0.02	1.6	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.69 9	0.1 51	177.97 2	0.4	0.01	1.0	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.74 8	0.2 00	190.15 8	0.4	0.02	1.4	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.66 4	0.1 16	190.37 4	0.4	0.01	0.9	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.73 3	0.1 85	202.97 9	0.4	0.02	1.3	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.63 4	0.0 86	202.69 8	0.4	0.01	0.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-3.0003--5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S12-5	S11-5	28.755	27.151	0.132	15.707	1.4	0.6	35.1	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S12-5	S11-5	28.755	27.146	0.127	15.704	1.4	0.57	33.0	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S12-5	S11-5	28.755	27.119	0.103	20.495	1.3	0.41	23.7	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S12-5	S11-5	28.755	27.115	0.100	20.495	1.3	0.38	22.2	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S12-5	S11-5	28.755	27.111	0.095	25.643	1.3	0.35	20.5	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S12-5	S11-5	28.755	27.099	0.084	25.649	1.2	0.28	16.5	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S12-5	S11-5	28.755	27.092	0.078	30.113	1.2	0.25	14.3	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S12-5	S11-5	28.755	27.079	0.065	30.107	1.1	0.18	10.3	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S12-5	S11-5	28.755	27.082	0.068	33.131	1.1	0.19	11.1	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S12-5	S11-5	28.755	27.069	0.056	33.119	1.0	0.13	7.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.07 5	0.0 62	35.453	1.0	0.16	9.2	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.06 3	0.0 50	35.447	0.9	0.11	6.2	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.06 6	0.0 53	38.993	1.0	0.12	6.9	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 6	0.0 43	38.993	0.9	0.08	4.6	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.06 1	0.0 48	41.789	0.9	0.1	5.7	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 1	0.0 39	41.819	0.8	0.06	3.7	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 7	0.0 44	44.117	0.9	0.08	4.8	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 8	0.0 36	44.153	0.8	0.05	3.1	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 4	0.0 41	46.175	0.8	0.07	4.2	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 6	0.0 33	46.187	0.7	0.05	2.7	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.05 0	0.0 37	49.667	0.8	0.06	3.4	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 2	0.0 30	49.625	0.7	0.04	2.2	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.04 4	0.0 32	55.187	0.7	0.04	2.5	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 8	0.0 26	55.079	0.6	0.03	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.04 0	0.0 28	61.535	0.7	0.03	1.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 5	0.0 22	61.433	0.6	0.02	1.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 7	0.0 25	66.671	0.6	0.03	1.5	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 3	0.0 20	66.551	0.5	0.02	1.0	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 4	0.0 22	75.215	0.6	0.02	1.1	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.03 0	0.0 18	75.203	0.5	0.01	0.7	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 2	0.0 20	82.541	0.5	0.02	0.9	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 8	0.0 16	82.673	0.5	0.01	0.6	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 1	0.0 19	89.249	0.5	0.01	0.8	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 7	0.0 15	89.411	0.4	0.01	0.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.03 0	0.0 18	95.201	0.5	0.01	0.7	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 7	0.0 14	95.495	0.4	0.01	0.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.02 9	0.0 17	101.73 5	0.5	0.01	0.7	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 6	0.0 14	101.72 3	0.4	0.01	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-4.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S13-5	S09-5	28.754	27.076	0.144	15.466	1.3	0.6	35.0	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S13-5	S09-5	28.754	27.071	0.138	15.486	1.3	0.57	32.9	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S13-5	S09-5	28.754	27.045	0.112	20.272	1.3	0.4	23.5	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S13-5	S09-5	28.754	27.041	0.106	20.284	1.3	0.38	22.1	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S13-5	S09-5	28.754	27.036	0.100	25.426	1.3	0.35	20.4	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S13-5	S09-5	28.754	27.026	0.084	25.471	1.2	0.28	16.4	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S13-5	S09-5	28.754	27.019	0.077	29.922	1.2	0.24	14.2	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S13-5	S09-5	28.754	27.007	0.065	29.908	1.1	0.18	10.2	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S13-5	S09-5	28.754	27.009	0.067	32.904	1.1	0.19	11.0	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S13-5	S09-5	28.754	26.997	0.055	32.894	1.0	0.13	7.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.00 3	0.0 61	35.222	1.1	0.16	9.1	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.99 1	0.0 57	35.214	0.9	0.11	6.1	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.99 4	0.0 73	38.766	1.0	0.12	6.9	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.98 4	0.0 72	38.756	0.9	0.08	4.5	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.98 9	0.0 82	41.539	0.9	0.1	5.6	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.98 0	0.0 82	41.514	0.8	0.06	3.7	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.98 5	0.0 89	43.852	0.9	0.08	4.8	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 7	0.0 89	43.833	0.8	0.05	3.1	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.98 2	0.0 94	45.894	0.8	0.07	4.2	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 4	0.0 93	45.890	0.7	0.05	2.7	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 8	0.0 99	49.311	0.8	0.06	3.4	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.97 1	0.0 99	49.341	0.7	0.04	2.2	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.97 3	0.1 01	54.830	0.7	0.04	2.5	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 7	0.1 02	54.770	0.6	0.03	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 9	0.1 01	61.176	0.7	0.03	1.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 4	0.0 97	61.223	0.6	0.02	1.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 6	0.0 98	66.219	0.6	0.03	1.5	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.96 1	0.0 92	66.342	0.5	0.02	1.0	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 3	0.0 90	74.847	0.6	0.02	1.1	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 9	0.0 75	74.782	0.5	0.01	0.7	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 1	0.0 80	81.910	0.5	0.02	0.9	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 7	0.0 56	82.182	0.5	0.01	0.6	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.96 0	0.0 72	88.631	0.5	0.01	0.8	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 6	0.0 38	88.560	0.5	0.01	0.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 9	0.0 63	94.955	0.5	0.01	0.7	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 5	0.0 21	94.879	0.4	0.01	0.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S13-5	S09-5	28.75 4	26.95 8	0.0 55	101.24 3	0.5	0.01	0.6	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.95 5	0.0 14	100.97 9	0.4	0.01	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-1.004-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	Tank	S04-5	28.670	26.489	0.225	3.015	0.3	0.06	2.4	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	Tank	S04-5	28.670	26.489	0.225	3.026	0.4	0.06	2.4	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	Tank	S04-5	28.670	26.555	0.225	6.551	0.1	0.06	2.5	Surcharged
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	Tank	S04-5	28.670	26.555	0.225	6.577	0.1	0.06	2.5	Surcharged
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	Tank	S04-5	28.670	26.623	0.225	13.512	0.2	0.06	2.5	Surcharged
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	Tank	S04-5	28.670	26.623	0.225	13.602	0.3	0.06	2.5	Surcharged
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	Tank	S04-5	28.670	26.677	0.225	27.344	0.2	0.06	2.4	Surcharged
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	Tank	S04-5	28.670	26.677	0.225	27.530	0.2	0.06	2.4	Surcharged
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	Tank	S04-5	28.670	26.710	0.225	41.146	0.2	0.06	2.4	Surcharged
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	Tank	S04-5	28.670	26.710	0.225	41.422	0.2	0.06	2.4	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.73 3	0.2 25	54.937	0.2	0.06	2.4	Sur char ged
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.73 3	0.2 25	55.298	0.2	0.06	2.4	Sur char ged
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.76 4	0.2 25	82.471	0.2	0.06	2.4	Sur char ged
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.76 4	0.2 25	83.004	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.78 4	0.2 25	110.03 2	0.2	0.06	2.4	Sur char ged
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.78 5	0.2 25	110.74 8	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.79 8	0.2 25	137.64 1	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.79 9	0.2 25	138.54 8	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.80 8	0.2 25	165.29 2	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.80 9	0.2 25	166.40 8	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.82 0	0.2 25	220.86 5	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.82 1	0.2 25	222.43 2	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	Tank	S04-5	28.67 0	26.82 6	0.2 25	332.78 3	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	Tank	S04-5	28.67 0	26.82 7	0.2 25	335.38 8	0.1	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	Tank	S04-5	28.670	26.825	0.225	492.042	0.2	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	Tank	S04-5	28.670	26.818	0.225	495.238	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	Tank	S04-5	28.670	26.820	0.225	585.451	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	Tank	S04-5	28.670	26.806	0.225	586.624	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	Tank	S04-5	28.670	26.802	0.225	677.869	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	Tank	S04-5	28.670	26.772	0.225	677.706	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	Tank	S04-5	28.670	26.784	0.225	744.829	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	Tank	S04-5	28.670	26.734	0.225	745.694	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	Tank	S04-5	28.670	26.767	0.225	806.157	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	Tank	S04-5	28.670	26.699	0.225	806.252	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	Tank	S04-5	28.670	26.748	0.225	862.039	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	Tank	S04-5	28.670	26.664	0.225	863.412	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	Tank	S04-5	28.670	26.733	0.225	919.032	0.1	0.06	2.3	Sur charged
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	Tank	S04-5	28.670	26.634	0.225	918.690	0.1	0.06	2.3	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Sw-3.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +0 %: 15 mins: Summer	Pipe	S11-5	S10-5	28.558	26.916	0.177	15.739	0.8	0.54	32.8	OK
FEH: 30 years: +0 %: 15 mins: Winter	Pipe	S11-5	S10-5	28.558	26.911	0.170	15.736	0.7	0.51	31.0	OK
FEH: 30 years: +0 %: 30 mins: Summer	Pipe	S11-5	S10-5	28.558	26.887	0.147	20.524	0.7	0.39	23.7	OK
FEH: 30 years: +0 %: 30 mins: Winter	Pipe	S11-5	S10-5	28.558	26.883	0.141	20.523	0.7	0.36	22.2	OK
FEH: 30 years: +0 %: 60 mins: Summer	Pipe	S11-5	S10-5	28.558	26.877	0.134	25.667	0.7	0.33	20.5	OK
FEH: 30 years: +0 %: 60 mins: Winter	Pipe	S11-5	S10-5	28.558	26.864	0.116	25.670	0.7	0.27	16.5	OK
FEH: 30 years: +0 %: 120 mins: Summer	Pipe	S11-5	S10-5	28.558	26.856	0.106	30.156	0.6	0.23	14.3	OK
FEH: 30 years: +0 %: 120 mins: Winter	Pipe	S11-5	S10-5	28.558	26.841	0.087	30.148	0.6	0.17	10.3	OK
FEH: 30 years: +0 %: 180 mins: Summer	Pipe	S11-5	S10-5	28.558	26.844	0.091	33.184	0.6	0.18	11.1	OK
FEH: 30 years: +0 %: 180 mins: Winter	Pipe	S11-5	S10-5	28.558	26.830	0.073	33.171	0.6	0.12	7.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 240 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.83 7	0.0 81	35.512	0.6	0.15	9.2	OK
FEH: 30 years: +0 %: 240 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.82 3	0.0 74	35.505	0.6	0.1	6.2	OK
FEH: 30 years: +0 %: 360 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 7	0.0 89	39.059	0.6	0.11	6.9	OK
FEH: 30 years: +0 %: 360 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.81 4	0.0 88	39.058	0.5	0.07	4.6	OK
FEH: 30 years: +0 %: 480 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 1	0.1 02	41.857	0.5	0.09	5.7	OK
FEH: 30 years: +0 %: 480 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 9	0.1 03	41.884	0.5	0.06	3.7	OK
FEH: 30 years: +0 %: 600 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.81 6	0.1 16	44.185	0.5	0.08	4.8	OK
FEH: 30 years: +0 %: 600 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 5	0.1 17	44.218	0.5	0.05	3.1	OK
FEH: 30 years: +0 %: 720 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.81 2	0.1 26	46.243	0.5	0.07	4.2	OK
FEH: 30 years: +0 %: 720 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 9	0.1 27	46.251	0.4	0.04	2.7	OK
FEH: 30 years: +0 %: 960 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 0	0.1 38	49.734	0.5	0.06	3.4	OK
FEH: 30 years: +0 %: 960 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.82 1	0.1 39	49.687	0.4	0.04	2.2	OK
FEH: 30 years: +0 %: 1440 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 6	0.1 44	55.251	0.4	0.04	2.5	OK
FEH: 30 years: +0 %: 1440 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.82 7	0.1 45	55.136	0.4	0.03	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +0 %: 2160 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 5	0.1 43	61.594	0.4	0.03	1.9	OK
FEH: 30 years: +0 %: 2160 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.81 8	0.1 36	61.485	0.3	0.02	1.2	OK
FEH: 30 years: +0 %: 2880 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.82 0	0.1 38	66.727	0.4	0.02	1.5	OK
FEH: 30 years: +0 %: 2880 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.80 6	0.1 24	66.599	0.3	0.02	1.0	OK
FEH: 30 years: +0 %: 4320 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.80 3	0.1 21	75.257	0.3	0.02	1.1	OK
FEH: 30 years: +0 %: 4320 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.78 1	0.0 90	75.236	0.3	0.01	0.7	OK
FEH: 30 years: +0 %: 5760 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 4	0.1 02	82.569	0.3	0.02	0.9	OK
FEH: 30 years: +0 %: 5760 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 9	0.0 71	82.690	0.3	0.01	0.6	OK
FEH: 30 years: +0 %: 7200 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 3	0.0 87	89.274	0.3	0.01	0.8	OK
FEH: 30 years: +0 %: 7200 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 8	0.0 53	89.423	0.3	0.01	0.5	OK
FEH: 30 years: +0 %: 8640 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 1	0.0 78	95.222	0.3	0.01	0.7	OK
FEH: 30 years: +0 %: 8640 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 7	0.0 36	95.501	0.3	0.01	0.5	OK
FEH: 30 years: +0 %: 10080 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.78 0	0.0 70	101.75 3	0.3	0.01	0.7	OK
FEH: 30 years: +0 %: 10080 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.77 6	0.0 21	101.72 5	0.2	0.01	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.003-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S03-5	Tank	28.711	27.293	0.300	105.534	2.6	2.57	181.9	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S03-5	Tank	28.711	27.278	0.300	105.498	2.5	2.52	178.0	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S03-5	Tank	28.711	27.213	0.300	137.775	2.2	2.25	159.0	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S03-5	Tank	28.711	27.183	0.300	137.777	2.1	2.11	149.2	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S03-5	Tank	28.711	27.150	0.300	171.962	2.0	1.95	138.0	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S03-5	Tank	28.711	27.075	0.300	171.982	1.6	1.56	110.5	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S03-5	Tank	28.711	27.022	0.284	201.199	1.4	1.35	95.5	Surcharged
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S03-5	Tank	28.711	26.944	0.227	201.187	1.2	0.98	69.0	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S03-5	Tank	28.711	26.957	0.237	220.691	1.2	1.05	74.1	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S03-5	Tank	28.711	26.901	0.205	220.698	1.1	0.73	51.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.92 6	0.2 41	235.76 9	1.2	0.87	61. 6	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.92 3	0.2 40	235.79 8	1.0	0.59	41. 5	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S03-5	Tank	28.71 1	26.97 3	0.2 91	259.02 6	1.0	0.66	46. 4	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S03-5	Tank	28.71 1	26.97 3	0.2 90	259.02 2	0.9	0.43	30. 6	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.00 8	0.3 00	277.48 9	1.0	0.54	38. 1	Sur charged
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.00 8	0.3 00	277.50 2	0.9	0.35	24. 7	Sur charged
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.03 4	0.3 00	293.11 1	0.9	0.46	32. 3	Sur charged
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.03 4	0.3 00	293.15 9	0.8	0.29	20. 8	Sur charged
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.05 4	0.3 00	306.88 9	0.9	0.4	28. 2	Sur charged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.05 5	0.3 00	306.88 4	0.8	0.26	18. 2	Sur charged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.08 3	0.3 00	330.42 8	0.8	0.32	22. 7	Sur charged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.08 4	0.3 00	330.48 3	0.8	0.21	14. 7	Sur charged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.11 3	0.3 00	368.80 7	0.8	0.24	16. 8	Sur charged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.11 6	0.3 00	368.98 6	0.7	0.15	10. 9	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.12 3	0.3 00	413.31 3	0.7	0.18	12. 5	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.12 9	0.3 00	413.23 3	0.6	0.11	8.1	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.12 2	0.3 00	448.16 4	0.7	0.14	10. 2	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.12 3	0.3 00	448.24 3	0.6	0.09	6.6	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.11 9	0.3 00	505.64 7	0.6	0.11	7.7	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.10 8	0.3 00	505.95 7	0.6	0.07	4.9	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.11 2	0.3 00	555.06 2	0.6	0.09	6.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.08 7	0.3 00	554.51 9	0.5	0.06	4.1	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.10 6	0.3 00	599.38 9	0.6	0.08	5.4	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.06 6	0.3 00	600.02 0	0.5	0.05	3.5	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.10 1	0.3 00	641.91 3	0.6	0.07	4.9	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.04 5	0.3 00	643.21 0	0.5	0.04	3.1	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.09 9	0.3 00	683.85 4	0.5	0.06	4.4	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.02 2	0.3 00	683.98 7	0.5	0.04	2.9	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-5.001-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.990	0.222	23.919	0.9	0.7	49.8	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.981	0.212	23.918	0.9	0.67	47.1	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.948	0.173	31.219	0.9	0.51	36.0	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.942	0.166	31.225	0.8	0.48	33.8	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.935	0.157	39.075	0.8	0.44	31.3	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.917	0.138	39.081	0.8	0.36	25.1	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.907	0.126	45.898	0.8	0.31	21.8	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.888	0.105	45.893	0.7	0.22	15.7	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.892	0.109	50.471	0.7	0.24	16.9	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.874	0.089	50.489	0.7	0.16	11.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.88 2	0.0 98	54.023	0.7	0.2	14. 0	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.86 5	0.0 79	54.029	0.6	0.13	9.4	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.87 0	0.0 84	59.465	0.6	0.15	10. 5	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.85 5	0.0 68	59.430	0.6	0.1	6.9	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.86 2	0.0 76	63.701	0.6	0.12	8.6	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 9	0.0 61	63.714	0.5	0.08	5.6	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.85 7	0.0 70	67.257	0.6	0.1	7.3	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 4	0.0 56	67.272	0.5	0.07	4.7	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.85 2	0.0 65	70.374	0.6	0.09	6.4	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 1	0.0 52	70.404	0.5	0.06	4.1	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 6	0.0 58	75.684	0.5	0.07	5.1	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 6	0.0 47	75.702	0.5	0.05	3.3	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 9	0.0 50	84.066	0.5	0.05	3.8	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 0	0.0 40	84.126	0.4	0.03	2.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 3	0.0 43	93.744	0.5	0.04	2.8	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 5	0.0 35	93.852	0.4	0.03	1.8	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 9	0.0 39	101.58 0	0.4	0.03	2.3	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 2	0.0 32	101.56 2	0.4	0.02	1.5	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 4	0.0 34	114.39 6	0.4	0.02	1.7	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 28	114.63 0	0.3	0.02	1.1	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 1	0.0 31	125.58 0	0.4	0.02	1.4	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 6	0.0 25	125.32 8	0.3	0.01	0.9	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 9	0.0 29	135.82 8	0.4	0.02	1.2	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 4	0.0 23	135.70 8	0.3	0.01	0.8	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 27	145.97 4	0.3	0.02	1.1	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 3	0.0 22	145.39 8	0.3	0.01	0.7	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 7	0.0 26	155.31 6	0.3	0.01	1.0	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 2	0.0 21	154.81 2	0.3	0.01	0.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.000-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.918	0.300	3.491	0.9	0.92	65.3	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.898	0.300	3.433	0.9	0.88	62.1	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.809	0.300	4.465	0.4	0.27	19.4	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.711	0.300	4.448	0.3	0.25	17.7	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.605	0.300	5.541	0.2	0.22	15.5	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.366	0.300	5.522	0.1	0.13	9.2	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.235	0.300	6.494	0.1	0.11	7.7	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.064	0.157	6.487	0.1	0.04	2.9	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.089	0.182	7.143	0.1	0.05	3.8	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.019	0.103	7.145	0.1	0.02	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.035	0.128	7.652	0.1	0.03	2.0	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.016	0.088	7.660	0.1	0.02	1.3	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.018	0.095	8.432	0.1	0.02	1.5	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.013	0.078	8.410	0.1	0.01	1.0	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.015	0.101	9.028	0.1	0.02	1.2	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.011	0.102	9.042	0.1	0.01	0.8	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.034	0.128	9.557	0.1	0.01	1.0	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.034	0.128	9.553	0.1	0.01	0.7	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.054	0.148	9.983	0.1	0.01	0.9	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.055	0.148	9.973	0.1	0.01	0.6	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.083	0.176	10.729	0.1	0.01	0.7	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.084	0.177	10.676	0.1	0.01	0.5	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.113	0.206	11.936	0.1	0.01	0.5	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.116	0.209	11.912	0.1	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.12 3	0.2 16	13.304	0.1	0.01	0.4	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.12 9	0.2 22	13.291	0.1	0	0.3	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.12 2	0.2 16	14.401	0.1	0	0.3	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.12 3	0.2 16	14.448	0.1	0	0.2	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.11 9	0.2 12	16.314	0.1	0	0.3	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.10 8	0.2 01	16.421	0.1	0	0.2	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.11 3	0.2 06	17.970	0.1	0	0.2	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.08 7	0.1 80	17.753	0.0	0	0.1	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.10 6	0.1 99	19.306	0.1	0	0.2	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.06 6	0.1 59	19.281	0.0	0	0.1	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.10 1	0.1 95	20.443	0.1	0	0.2	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.04 5	0.1 38	20.939	0.0	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.09 9	0.1 92	21.645	0.0	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.02 2	0.1 16	22.382	0.0	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	28.016	0.300	70.144	1.5	1.49	105.4	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.974	0.300	70.105	1.5	1.49	105.2	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.807	0.300	91.487	1.5	1.49	105.5	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.710	0.300	91.482	1.4	1.4	99.1	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.604	0.300	114.470	1.3	1.3	91.6	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.365	0.300	114.474	1.0	1.04	73.3	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.235	0.300	134.429	0.9	0.9	63.4	Surcharged
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.063	0.258	134.418	0.7	0.65	45.8	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.089	0.281	147.664	0.7	0.7	49.2	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.000	0.197	147.671	0.7	0.48	34.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.03 4	0.2 30	157.86 9	0.7	0.58	40.9	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.97 2	0.1 68	157.88 7	0.7	0.39	27.6	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	26.98 6	0.1 87	173.50 3	0.7	0.44	30.8	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	26.97 3	0.1 87	173.48 6	0.6	0.29	20.3	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.00 8	0.2 22	185.84 0	0.7	0.36	25.3	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.00 8	0.2 22	185.86 0	0.6	0.23	16.4	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.03 4	0.2 48	196.28 9	0.7	0.3	21.5	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.03 4	0.2 48	196.28 5	0.6	0.2	13.8	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.05 4	0.2 68	205.35 7	0.6	0.26	18.7	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.05 5	0.2 69	205.35 9	0.6	0.17	12.1	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.08 3	0.2 97	220.92 7	0.6	0.21	15.1	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.08 4	0.2 98	220.91 3	0.6	0.14	9.7	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.11 3	0.3 00	246.00 2	0.6	0.16	11.2	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.11 6	0.3 00	246.07 5	0.5	0.1	7.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.12 3	0.3 00	274.68 7	0.5	0.12	8.3	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.12 9	0.3 00	274.54 8	0.5	0.08	5.4	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.12 2	0.3 00	297.42 7	0.5	0.1	6.8	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.12 3	0.3 00	297.47 9	0.5	0.06	4.4	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.11 9	0.3 00	335.77 1	0.5	0.07	5.1	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.10 8	0.3 00	335.85 3	0.4	0.05	3.3	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.11 3	0.3 00	368.54 9	0.5	0.06	4.2	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.08 7	0.3 00	368.07 3	0.4	0.04	2.7	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.10 6	0.3 00	398.17 7	0.5	0.05	3.6	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.06 6	0.2 80	398.00 7	0.4	0.03	2.3	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.10 1	0.3 00	426.07 0	0.4	0.05	3.2	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.04 5	0.2 59	426.93 8	0.4	0.03	2.1	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.09 9	0.3 00	453.48 2	0.4	0.04	2.9	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.02 2	0.2 36	454.43 2	0.4	0.03	1.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.806	0.300	105.624	2.6	2.62	185.4	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.766	0.300	105.590	2.6	2.55	180.5	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.593	0.300	137.812	2.2	2.25	159.0	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.520	0.300	137.816	2.1	2.11	149.2	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.440	0.300	172.460	2.0	1.95	138.0	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.258	0.300	172.481	1.6	1.56	110.6	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.157	0.300	202.253	1.4	1.35	95.6	Surcharged
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.025	0.263	202.247	1.1	0.97	69.0	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.046	0.280	222.086	1.1	1.05	74.2	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S03 - 5	S03-5	28.792	26.966	0.212	222.094	1.0	0.73	51.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.99 9	0.2 41	237.39 7	1.0	0.87	61. 7	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.93 6	0.2 01	237.42 1	0.9	0.59	41. 5	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	26.97 3	0.2 51	260.91 8	0.9	0.66	46. 4	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	26.97 3	0.2 51	260.89 9	0.8	0.43	30. 6	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.00 8	0.2 87	279.49 2	0.9	0.54	38. 1	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.00 8	0.2 87	279.48 5	0.8	0.35	24. 7	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.03 4	0.3 00	295.15 0	0.9	0.46	32. 3	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.03 4	0.3 00	295.17 4	0.8	0.29	20. 8	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.05 4	0.3 00	308.91 6	0.8	0.4	28. 2	Sur char ged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.05 5	0.3 00	308.88 6	0.7	0.26	18. 2	Sur char ged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.08 3	0.3 00	332.33 8	0.8	0.32	22. 7	Sur char ged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.08 4	0.3 00	332.36 5	0.7	0.21	14. 7	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.11 3	0.3 00	370.24 4	0.7	0.24	16. 8	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.11 6	0.3 00	370.39 4	0.7	0.15	10. 9	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.12 3	0.3 00	413.67 7	0.7	0.18	12. 5	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.12 9	0.3 00	413.56 1	0.6	0.11	8.1	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.12 2	0.3 00	448.22 6	0.6	0.14	10. 2	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.12 3	0.3 00	448.29 0	0.6	0.09	6.6	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.11 9	0.3 00	505.69 9	0.6	0.11	7.7	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.10 8	0.3 00	505.99 7	0.5	0.07	4.9	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.11 3	0.3 00	555.10 9	0.6	0.09	6.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.08 7	0.3 00	554.55 5	0.5	0.06	4.1	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.10 6	0.3 00	599.43 1	0.6	0.08	5.4	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.06 6	0.3 00	600.05 3	0.5	0.05	3.5	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.10 1	0.3 00	641.95 3	0.5	0.07	4.9	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.04 5	0.3 00	643.24 0	0.5	0.04	3.1	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.09 9	0.3 00	683.89 2	0.5	0.06	4.4	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.02 2	0.3 00	684.01 6	0.5	0.04	2.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-2.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.852	0.300	3.467	0.9	0.6	64.0	Flood
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.852	0.300	3.449	0.8	0.54	57.7	Flood
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.809	0.300	4.450	0.5	0.05	5.1	Flood Risk
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.712	0.300	4.441	0.5	0.04	4.8	Flood Risk
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.605	0.300	5.539	0.5	0.04	4.4	Flood Risk
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.367	0.247	5.540	0.5	0.03	3.5	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.283	0.140	6.509	0.5	0.03	3.1	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.279	0.052	6.500	0.5	0.02	2.2	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.280	0.065	7.149	0.5	0.02	2.4	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.276	0.028	7.147	0.5	0.02	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 8	0.0 37	7.651	0.5	0.02	2.0	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 3	0.0 25	7.657	0.5	0.01	1.3	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 5	0.0 27	8.425	0.5	0.01	1.5	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 0	0.0 22	8.400	0.4	0.01	1.0	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 2	0.0 24	9.020	0.5	0.01	1.2	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 8	0.0 20	9.031	0.4	0.01	0.8	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 1	0.0 25	9.549	0.4	0.01	1.0	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 7	0.0 25	9.543	0.4	0.01	0.7	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 9	0.0 35	9.976	0.4	0.01	0.9	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 6	0.0 35	9.964	0.4	0.01	0.6	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 8	0.0 50	10.722	0.4	0.01	0.7	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 4	0.0 50	10.668	0.3	0	0.5	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 5	0.0 64	11.929	0.3	0.01	0.5	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 3	0.0 66	11.906	0.3	0	0.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 3	0.0 70	13.298	0.3	0	0.4	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 1	0.0 72	13.286	0.3	0	0.3	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 2	0.0 69	14.395	0.3	0	0.3	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 0	0.0 69	14.443	0.3	0	0.2	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 1	0.0 67	16.308	0.3	0	0.3	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 62	16.415	0.2	0	0.2	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.26 0	0.0 64	17.961	0.3	0	0.2	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 51	17.744	0.2	0	0.1	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 61	19.299	0.2	0	0.2	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 41	19.273	0.2	0	0.1	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 9	0.0 59	20.438	0.2	0	0.2	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 30	20.935	0.2	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.25 8	0.0 57	21.644	0.2	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.25 7	0.0 19	22.380	0.2	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.005 - 5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S04-5	EX	28.502	26.577	0.038	2.851	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S04-5	EX	28.502	26.577	0.038	2.871	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S04-5	EX	28.502	26.669	0.038	6.336	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S04-5	EX	28.502	26.669	0.038	6.370	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S04-5	EX	28.502	26.764	0.037	13.087	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S04-5	EX	28.502	26.764	0.038	13.170	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S04-5	EX	28.502	26.840	0.038	26.197	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S04-5	EX	28.502	26.840	0.038	26.349	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S04-5	EX	28.502	26.888	0.038	38.471	0.5	0.06	2.3	Surcharged
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S04-5	EX	28.502	26.887	0.038	38.684	0.5	0.06	2.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S04-5	EX	28.50 2	26.92 3	0.0 38	49.932	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S04-5	EX	28.50 2	26.92 3	0.0 38	50.209	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S04-5	EX	28.50 2	26.97 3	0.0 38	73.919	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S04-5	EX	28.50 2	26.97 3	0.0 38	74.367	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S04-5	EX	28.50 2	27.00 8	0.0 38	99.836	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S04-5	EX	28.50 2	27.00 8	0.0 38	100.40 4	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S04-5	EX	28.50 2	27.03 4	0.0 38	126.13 7	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S04-5	EX	28.50 2	27.03 4	0.0 38	126.78 4	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S04-5	EX	28.50 2	27.05 4	0.0 38	152.57 5	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S04-5	EX	28.50 2	27.05 4	0.0 38	153.27 0	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S04-5	EX	28.50 2	27.08 2	0.0 38	205.43 8	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S04-5	EX	28.50 2	27.08 3	0.0 38	206.20 8	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S04-5	EX	28.50 2	27.11 2	0.0 38	312.28 0	0.5	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S04-5	EX	28.50 2	27.11 5	0.0 38	313.34 8	0.5	0.06	2.3	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S04-5	EX	28.50 2	27.12 2	0.0 38	478.77 2	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S04-5	EX	28.50 2	27.12 8	0.0 38	480.41 1	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S04-5	EX	28.50 2	27.12 2	0.0 38	649.71 8	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S04-5	EX	28.50 2	27.12 2	0.0 38	652.41 4	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S04-5	EX	28.50 2	27.11 8	0.0 38	928.46 1	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S04-5	EX	28.50 2	27.10 7	0.0 38	930.36 3	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S04-5	EX	28.50 2	27.11 2	0.0 38	1041.6 55	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S04-5	EX	28.50 2	27.08 6	0.0 38	1040.7 18	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S04-5	EX	28.50 2	27.10 6	0.0 38	1128.0 67	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S04-5	EX	28.50 2	27.06 5	0.0 38	1127.8 29	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S04-5	EX	28.50 2	27.10 1	0.0 38	1208.5 96	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S04-5	EX	28.50 2	27.04 4	0.0 38	1209.1 22	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S04-5	EX	28.50 2	27.09 8	0.0 38	1286.6 08	0.5	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S04-5	EX	28.50 2	27.02 2	0.0 38	1285.6 54	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-5.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.875	0.227	49.352	1.8	0.83	103.3	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.863	0.217	49.352	1.8	0.78	97.7	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.818	0.178	64.413	1.7	0.6	74.4	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.810	0.171	64.430	1.7	0.56	69.8	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.801	0.162	80.620	1.7	0.52	64.5	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.779	0.142	80.632	1.6	0.42	51.9	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.766	0.131	94.691	1.5	0.36	44.9	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.742	0.109	94.682	1.4	0.26	32.3	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.747	0.113	104.117	1.4	0.28	34.9	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.725	0.092	104.159	1.3	0.19	24.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.73 5	0.1 02	111.42 5	1.4	0.23	28. 9	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.71 4	0.0 82	111.44 9	1.2	0.16	19. 4	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.72 0	0.0 88	122.65 7	1.3	0.17	21. 7	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.70 1	0.0 70	122.61 5	1.1	0.11	14. 3	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.71 0	0.0 79	131.43 5	1.2	0.14	17. 8	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.69 4	0.0 63	131.41 1	1.1	0.09	11. 5	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.70 4	0.0 72	138.78 2	1.2	0.12	15. 1	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 8	0.0 58	138.77 9	1.0	0.08	9.7	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 8	0.0 67	145.18 1	1.1	0.11	13. 2	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 4	0.0 54	145.23 5	1.0	0.07	8.5	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 1	0.0 60	156.08 9	1.0	0.09	10. 6	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 8	0.0 48	156.08 3	0.9	0.06	6.8	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 2	0.0 52	173.38 1	1.0	0.06	7.9	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 2	0.0 42	173.46 5	0.9	0.04	5.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 5	0.0 45	193.46 9	0.9	0.05	5.8	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 6	0.0 36	193.59 5	0.8	0.03	3.8	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 0	0.0 40	209.38 7	0.8	0.04	4.8	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 2	0.0 33	209.58 5	0.7	0.02	3.1	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 5	0.0 35	236.02 7	0.8	0.03	3.6	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 8	0.0 28	236.40 5	0.7	0.02	2.3	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 1	0.0 32	259.19 9	0.7	0.02	3.0	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 5	0.0 26	258.53 3	0.6	0.02	1.9	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 9	0.0 30	280.79 9	0.7	0.02	2.5	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 4	0.0 24	280.16 3	0.6	0.01	1.6	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 8	0.0 28	300.86 9	0.7	0.02	2.3	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 2	0.0 23	300.32 9	0.6	0.01	1.5	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 6	0.0 27	319.69 7	0.7	0.02	2.1	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 1	0.0 22	319.55 3	0.6	0.01	1.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-5.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S08-5	S07-5	28.888	28.321	0.117	1.953	0.2	0.03	4.2	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S08-5	S07-5	28.888	28.320	0.112	1.953	0.2	0.03	4.0	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S08-5	S07-5	28.888	28.315	0.093	2.544	0.2	0.02	2.9	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S08-5	S07-5	28.888	28.314	0.090	2.550	0.2	0.02	2.8	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S08-5	S07-5	28.888	28.313	0.085	3.186	0.2	0.02	2.5	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S08-5	S07-5	28.888	28.310	0.075	3.186	0.1	0.02	2.0	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S08-5	S07-5	28.888	28.309	0.069	3.738	0.1	0.01	1.8	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S08-5	S07-5	28.888	28.305	0.058	3.750	0.1	0.01	1.3	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S08-5	S07-5	28.888	28.306	0.061	4.122	0.1	0.01	1.4	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S08-5	S07-5	28.888	28.303	0.050	4.122	0.1	0.01	0.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 4	0.0 55	4.422	0.1	0.01	1.1	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 1	0.0 45	4.434	0.1	0.01	0.8	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 2	0.0 47	4.866	0.1	0.01	0.9	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 39	4.836	0.1	0	0.6	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 0	0.0 43	5.196	0.1	0.01	0.7	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 35	5.214	0.1	0	0.5	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 40	5.478	0.1	0	0.6	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 32	5.514	0.1	0	0.4	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 37	5.748	0.1	0	0.5	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 30	5.748	0.1	0	0.3	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 33	6.192	0.1	0	0.4	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 27	6.198	0.1	0	0.3	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 29	6.900	0.1	0	0.3	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	6.924	0.1	0	0.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 25	7.596	0.1	0	0.2	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 20	7.764	0.1	0	0.2	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	8.370	0.1	0	0.2	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	8.262	0.1	0	0.1	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 20	9.228	0.1	0	0.1	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	9.492	0.1	0	0.1	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	10.224	0.1	0	0.1	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 15	10.020	0.1	0	0.1	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	10.896	0.1	0	0.1	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	10.878	0.1	0	0.1	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	12.024	0.1	0	0.1	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	11.820	0.1	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 15	13.068	0.1	0	0.1	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 12	12.816	0.1	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-3.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S10-5	S09-5	28.560	26.868	0.275	21.931	0.6	0.61	38.1	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S10-5	S09-5	28.560	26.855	0.263	21.940	0.6	0.58	36.8	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S10-5	S09-5	28.560	26.820	0.227	28.316	0.6	0.53	33.1	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S10-5	S09-5	28.560	26.809	0.217	28.316	0.6	0.49	31.1	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S10-5	S09-5	28.560	26.797	0.206	34.683	0.6	0.46	28.7	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S10-5	S09-5	28.560	26.768	0.182	34.691	0.5	0.37	23.1	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S10-5	S09-5	28.560	26.840	0.258	39.890	0.5	0.32	20.0	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S10-5	S09-5	28.560	26.840	0.258	39.888	0.5	0.23	14.4	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S10-5	S09-5	28.560	26.887	0.300	43.419	0.5	0.25	15.5	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S10-5	S09-5	28.560	26.887	0.300	43.418	0.5	0.17	10.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.92 3	0.3 00	46.200	0.5	0.2	12. 9	Sur char ged
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.92 3	0.3 00	46.199	0.4	0.14	8.7	Sur char ged
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S10-5	S09-5	28.56 0	26.97 3	0.3 00	50.695	0.5	0.15	9.7	Sur char ged
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S10-5	S09-5	28.56 0	26.97 3	0.3 00	50.718	0.4	0.1	6.3	Sur char ged
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.00 8	0.3 00	54.419	0.4	0.12	7.7	Sur char ged
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.00 8	0.3 00	54.443	0.4	0.08	5.0	Sur char ged
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.03 4	0.3 00	57.621	0.4	0.1	6.2	Sur char ged
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.03 4	0.3 00	57.609	0.4	0.07	4.2	Sur char ged
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.05 4	0.3 00	60.477	0.4	0.09	5.4	Sur char ged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.05 4	0.3 00	60.508	0.4	0.06	3.6	Sur char ged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.08 2	0.3 00	65.542	0.4	0.07	4.3	Sur char ged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.08 3	0.3 00	65.552	0.3	0.05	2.9	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.11 2	0.3 00	74.072	0.3	0.05	3.1	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.11 5	0.3 00	74.139	0.3	0.03	2.1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.12 2	0.3 00	85.137	0.3	0.04	2.3	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.12 8	0.3 00	85.162	0.3	0.02	1.5	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.12 2	0.3 00	93.255	0.3	0.03	1.9	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.12 2	0.3 00	93.339	0.3	0.02	1.3	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.11 8	0.3 00	105.22 5	0.3	0.02	1.4	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.10 7	0.3 00	105.15 3	0.2	0.01	0.9	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.11 2	0.3 00	115.43 1	0.3	0.02	1.2	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.08 6	0.3 00	115.44 8	0.2	0.01	0.8	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.10 5	0.3 00	125.10 8	0.2	0.02	1.0	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.06 5	0.3 00	124.84 3	0.2	0.01	0.7	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.10 1	0.3 00	134.15 6	0.2	0.01	0.9	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.04 4	0.3 00	133.68 7	0.2	0.01	0.6	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.09 8	0.3 00	142.26 1	0.2	0.01	0.8	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.02 2	0.3 00	142.12 2	0.2	0.01	0.6	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-3.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S09-5	Tank	28.846	26.846	0.257	43.758	1.3	1.19	83.9	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S09-5	Tank	28.846	26.834	0.248	43.766	1.3	1.13	79.7	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S09-5	Tank	28.846	26.799	0.220	56.387	1.2	0.93	66.0	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S09-5	Tank	28.846	26.789	0.212	56.380	1.2	0.88	62.0	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S09-5	Tank	28.846	26.778	0.216	69.331	1.1	0.81	57.3	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S09-5	Tank	28.846	26.764	0.216	69.339	1.0	0.65	46.1	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S09-5	Tank	28.846	26.840	0.292	80.366	1.0	0.56	39.9	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S09-5	Tank	28.846	26.840	0.292	80.403	0.9	0.41	28.7	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S09-5	Tank	28.846	26.888	0.300	87.928	0.9	0.44	31.0	Surcharged
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S09-5	Tank	28.846	26.888	0.300	87.944	0.8	0.3	21.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.92 3	0.3 00	93.859	0.9	0.36	25. 6	Sur char ged
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.92 3	0.3 00	93.887	0.8	0.24	17. 3	Sur char ged
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S09-5	Tank	28.84 6	26.97 3	0.3 00	103.22 3	0.8	0.27	19. 0	Sur char ged
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S09-5	Tank	28.84 6	26.97 3	0.3 00	103.23 4	0.7	0.18	12. 6	Sur char ged
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.00 8	0.3 00	110.80 8	0.8	0.22	15. 4	Sur char ged
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.00 8	0.3 00	110.85 3	0.7	0.14	9.9	Sur char ged
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.03 4	0.3 00	117.27 9	0.7	0.18	12. 7	Sur char ged
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.03 4	0.3 00	117.28 5	0.6	0.12	8.3	Sur char ged
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.05 4	0.3 00	122.94 7	0.7	0.15	10. 9	Sur char ged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.05 5	0.3 00	122.98 8	0.6	0.1	7.2	Sur char ged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.08 3	0.3 00	132.90 0	0.6	0.12	8.6	Sur char ged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.08 4	0.3 00	132.89 2	0.6	0.08	5.7	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.11 2	0.3 00	149.27 2	0.6	0.09	6.3	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.11 6	0.3 00	149.36 2	0.5	0.06	4.1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.12 3	0.3 00	169.85 4	0.5	0.07	4.7	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.12 8	0.3 00	169.87 1	0.5	0.04	3.0	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.12 2	0.3 00	185.93 0	0.5	0.05	3.8	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.12 2	0.3 00	185.98 0	0.5	0.03	2.5	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.11 9	0.3 00	209.93 2	0.5	0.04	2.9	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.10 7	0.3 00	209.93 8	0.4	0.03	1.9	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.11 2	0.3 00	230.24 2	0.4	0.03	2.4	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.08 7	0.3 00	230.36 2	0.4	0.02	1.6	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.10 6	0.3 00	249.32 2	0.4	0.03	2.1	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.06 6	0.3 00	249.05 2	0.4	0.02	1.4	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.10 1	0.3 00	266.86 0	0.4	0.03	1.9	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.04 5	0.3 00	266.60 8	0.4	0.02	1.2	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.09 8	0.3 00	283.89 3	0.4	0.02	1.7	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.02 2	0.3 00	282.93 3	0.4	0.02	1.1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-3.0003--5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S12-5	S11-5	28.755	27.192	0.169	21.957	1.5	0.84	49.0	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S12-5	S11-5	28.755	27.183	0.161	21.989	1.5	0.79	46.1	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S12-5	S11-5	28.755	27.145	0.127	28.692	1.4	0.57	33.1	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S12-5	S11-5	28.755	27.139	0.122	28.691	1.4	0.53	31.1	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S12-5	S11-5	28.755	27.133	0.116	35.897	1.4	0.49	28.7	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S12-5	S11-5	28.755	27.118	0.102	35.903	1.3	0.4	23.1	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S12-5	S11-5	28.755	27.109	0.094	42.166	1.3	0.34	20.0	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S12-5	S11-5	28.755	27.093	0.078	42.160	1.2	0.25	14.4	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S12-5	S11-5	28.755	27.096	0.082	46.366	1.2	0.27	15.5	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S12-5	S11-5	28.755	27.080	0.067	46.359	1.1	0.18	10.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.08 8	0.0 74	49.613	1.1	0.22	12. 9	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.07 3	0.0 60	49.605	1.0	0.15	8.7	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.07 7	0.0 78	54.591	1.1	0.17	9.7	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.06 4	0.0 77	54.601	0.9	0.11	6.4	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.07 0	0.0 95	58.513	1.0	0.14	7.9	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 9	0.0 94	58.526	0.9	0.09	5.1	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.06 5	0.1 11	61.783	1.0	0.12	6.7	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 5	0.1 12	61.761	0.8	0.07	4.3	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.06 2	0.1 32	64.628	0.9	0.1	5.9	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.05 5	0.1 32	64.648	0.8	0.07	3.8	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.08 3	0.1 60	69.507	0.9	0.08	4.7	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.08 4	0.1 61	69.504	0.8	0.05	3.0	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.11 3	0.1 90	77.160	0.8	0.06	3.5	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.11 6	0.1 93	77.211	0.7	0.04	2.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.12 3	0.2 00	86.157	0.7	0.04	2.6	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.12 9	0.2 06	86.160	0.6	0.03	1.7	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.12 2	0.2 00	93.238	0.7	0.04	2.1	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.12 3	0.2 00	93.325	0.6	0.02	1.4	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.11 9	0.1 96	105.21 1	0.6	0.03	1.6	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.10 8	0.1 85	105.14 1	0.6	0.02	1.0	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.11 2	0.1 90	115.41 8	0.6	0.02	1.3	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.08 7	0.1 64	115.43 8	0.5	0.01	0.9	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.10 6	0.1 83	125.09 7	0.6	0.02	1.1	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.06 6	0.1 43	124.83 4	0.5	0.01	0.7	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.10 1	0.1 79	134.14 4	0.6	0.02	1.0	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.04 5	0.1 22	133.67 7	0.5	0.01	0.6	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.09 9	0.1 76	142.25 0	0.5	0.02	0.9	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.02 8	0.1 00	142.11 3	0.5	0.01	0.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-4.000-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S13-5	S09-5	28.754	27.117	0.195	21.685	1.3	0.84	49.1	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S13-5	S09-5	28.754	27.109	0.185	21.707	1.3	0.79	46.2	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S13-5	S09-5	28.754	27.069	0.147	28.356	1.3	0.57	32.9	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S13-5	S09-5	28.754	27.064	0.140	28.381	1.3	0.53	30.9	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S13-5	S09-5	28.754	27.057	0.131	35.519	1.3	0.49	28.6	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S13-5	S09-5	28.754	27.043	0.110	35.547	1.2	0.39	23.0	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S13-5	S09-5	28.754	27.035	0.115	41.763	1.2	0.34	19.9	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S13-5	S09-5	28.754	27.020	0.114	41.821	1.2	0.25	14.3	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S13-5	S09-5	28.754	27.023	0.138	45.998	1.2	0.27	15.4	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S13-5	S09-5	28.754	27.008	0.137	46.017	1.1	0.18	10.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.01 5	0.1 54	49.240	1.2	0.22	12. 8	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.00 1	0.1 53	49.273	1.0	0.15	8.6	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.00 4	0.1 86	54.208	1.1	0.17	9.6	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S13-5	S09-5	28.75 4	26.99 2	0.1 86	54.200	0.9	0.11	6.3	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.00 8	0.2 21	58.110	1.0	0.14	7.9	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.00 8	0.2 21	58.138	0.9	0.09	5.1	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.03 4	0.2 25	61.392	1.0	0.11	6.7	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.03 4	0.2 25	61.420	0.9	0.07	4.3	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.05 4	0.2 25	64.202	0.9	0.1	5.8	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.05 5	0.2 25	64.224	0.8	0.06	3.8	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.08 3	0.2 25	69.056	0.9	0.08	4.7	OK
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.08 4	0.2 25	69.048	0.8	0.05	3.0	OK
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.11 3	0.2 25	76.734	0.8	0.06	3.5	OK
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.11 6	0.2 25	76.762	0.7	0.04	2.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.12 3	0.2 25	85.527	0.7	0.04	2.6	OK
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.12 9	0.2 25	85.511	0.6	0.03	1.7	OK
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.12 2	0.2 25	92.702	0.7	0.04	2.1	OK
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.12 3	0.2 25	92.666	0.6	0.02	1.4	OK
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.11 9	0.2 25	104.70 7	0.6	0.03	1.6	OK
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.10 8	0.2 25	104.79 0	0.5	0.02	1.0	OK
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.11 2	0.2 25	114.81 3	0.6	0.02	1.3	OK
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.08 7	0.2 25	114.91 9	0.5	0.01	0.8	OK
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.10 6	0.2 25	124.21 7	0.6	0.02	1.1	OK
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.06 6	0.2 25	124.21 5	0.5	0.01	0.7	OK
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.10 1	0.2 25	132.70 9	0.5	0.02	1.0	OK
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.04 5	0.2 25	132.92 8	0.5	0.01	0.7	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.09 9	0.2 25	141.63 8	0.5	0.02	0.9	OK
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.02 2	0.2 25	140.81 8	0.5	0.01	0.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-1.004-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	Tank	S04-5	28.670	26.578	0.225	3.334	0.4	0.07	2.7	Surcharged
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	Tank	S04-5	28.670	26.578	0.225	3.354	0.4	0.07	2.7	Surcharged
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	Tank	S04-5	28.670	26.669	0.225	6.923	0.3	0.07	2.8	Surcharged
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	Tank	S04-5	28.670	26.669	0.225	6.956	0.1	0.07	2.7	Surcharged
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	Tank	S04-5	28.670	26.764	0.225	13.776	0.2	0.07	2.7	Surcharged
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	Tank	S04-5	28.670	26.764	0.225	13.859	0.3	0.07	2.6	Surcharged
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	Tank	S04-5	28.670	26.840	0.225	26.961	0.2	0.06	2.6	Surcharged
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	Tank	S04-5	28.670	26.840	0.225	27.113	0.2	0.06	2.5	Surcharged
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	Tank	S04-5	28.670	26.888	0.225	39.279	0.2	0.06	2.5	Surcharged
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	Tank	S04-5	28.670	26.888	0.225	39.492	0.2	0.06	2.4	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	Tank	S04-5	28.670	26.923	0.225	50.770	0.2	0.06	2.5	Sur charged
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	Tank	S04-5	28.670	26.923	0.225	51.046	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	Tank	S04-5	28.670	26.973	0.225	74.792	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	Tank	S04-5	28.670	26.973	0.225	75.239	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	Tank	S04-5	28.670	27.008	0.225	100.725	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	Tank	S04-5	28.670	27.008	0.225	101.292	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	Tank	S04-5	28.670	27.034	0.225	127.032	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	Tank	S04-5	28.670	27.034	0.225	127.677	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	Tank	S04-5	28.670	27.054	0.225	153.469	0.2	0.06	2.4	Sur charged
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	Tank	S04-5	28.670	27.055	0.225	154.163	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	Tank	S04-5	28.670	27.083	0.225	206.316	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	Tank	S04-5	28.670	27.084	0.225	207.084	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	Tank	S04-5	28.670	27.113	0.225	313.096	0.2	0.06	2.3	Sur charged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	Tank	S04-5	28.670	27.116	0.225	314.162	0.2	0.06	2.3	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.12 3	0.2 25	479.44 1	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.12 9	0.2 25	481.07 7	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.12 2	0.2 25	650.19 6	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.12 3	0.2 25	652.88 8	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.11 9	0.2 25	928.55 6	0.2	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.10 8	0.2 25	930.45 4	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.11 2	0.2 25	1041.6 74	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.08 7	0.2 25	1040.7 35	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.10 6	0.2 25	1128.0 74	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.06 6	0.2 25	1127.8 35	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.10 1	0.2 25	1208.6 00	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.04 5	0.2 25	1209.1 26	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.09 9	0.2 25	1286.6 12	0.1	0.06	2.3	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.02 2	0.2 25	1285.6 58	0.1	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Sw-3.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 30 years: +40 %: 15 mins: Summer	Pipe	S11-5	S10-5	28.558	26.959	0.232	22.008	0.8	0.74	45.2	OK
FEH: 30 years: +40 %: 15 mins: Winter	Pipe	S11-5	S10-5	28.558	26.950	0.221	22.021	0.8	0.7	42.8	OK
FEH: 30 years: +40 %: 30 mins: Summer	Pipe	S11-5	S10-5	28.558	26.916	0.186	28.744	0.7	0.54	33.1	OK
FEH: 30 years: +40 %: 30 mins: Winter	Pipe	S11-5	S10-5	28.558	26.909	0.177	28.743	0.7	0.51	31.1	OK
FEH: 30 years: +40 %: 60 mins: Summer	Pipe	S11-5	S10-5	28.558	26.902	0.168	35.988	0.7	0.47	28.7	OK
FEH: 30 years: +40 %: 60 mins: Winter	Pipe	S11-5	S10-5	28.558	26.885	0.145	35.993	0.7	0.38	23.1	OK
FEH: 30 years: +40 %: 120 mins: Summer	Pipe	S11-5	S10-5	28.558	26.876	0.158	41.865	0.7	0.33	20.0	OK
FEH: 30 years: +40 %: 120 mins: Winter	Pipe	S11-5	S10-5	28.558	26.857	0.158	41.858	0.6	0.24	14.4	OK
FEH: 30 years: +40 %: 180 mins: Summer	Pipe	S11-5	S10-5	28.558	26.887	0.206	45.758	0.7	0.25	15.5	OK
FEH: 30 years: +40 %: 180 mins: Winter	Pipe	S11-5	S10-5	28.558	26.888	0.206	45.750	0.6	0.17	10.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 240 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.92 3	0.2 41	48.755	0.6	0.21	12. 9	OK
FEH: 30 years: +40 %: 240 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.92 3	0.2 41	48.745	0.6	0.14	8.7	OK
FEH: 30 years: +40 %: 360 mins: Summer	Pipe	S11-5	S10-5	28.55 8	26.97 3	0.2 91	53.437	0.6	0.16	9.7	OK
FEH: 30 years: +40 %: 360 mins: Winter	Pipe	S11-5	S10-5	28.55 8	26.97 3	0.2 91	53.448	0.6	0.1	6.4	OK
FEH: 30 years: +40 %: 480 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.00 8	0.3 00	57.229	0.6	0.13	7.9	OK
FEH: 30 years: +40 %: 480 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.00 8	0.3 00	57.240	0.5	0.08	5.2	OK
FEH: 30 years: +40 %: 600 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.03 4	0.3 00	60.452	0.6	0.11	6.7	OK
FEH: 30 years: +40 %: 600 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.03 4	0.3 00	60.426	0.5	0.07	4.3	OK
FEH: 30 years: +40 %: 720 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.05 4	0.3 00	63.302	0.5	0.1	5.9	OK
FEH: 30 years: +40 %: 720 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.05 5	0.3 00	63.317	0.5	0.06	3.8	OK
FEH: 30 years: +40 %: 960 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.08 3	0.3 00	68.296	0.5	0.08	4.7	Sur char ged
FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.08 4	0.3 00	68.289	0.4	0.05	3.1	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.11 3	0.3 00	76.453	0.4	0.06	3.5	Sur char ged
FEH: 30 years: +40 %: 1440 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.11 6	0.3 00	76.499	0.4	0.04	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 30 years: +40 %: 2160 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.12 3	0.3 00	86.235	0.4	0.04	2.6	Sur char ged
FEH: 30 years: +40 %: 2160 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.12 9	0.3 00	86.224	0.4	0.03	1.7	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.12 2	0.3 00	93.316	0.4	0.03	2.1	Sur char ged
FEH: 30 years: +40 %: 2880 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.12 3	0.3 00	93.390	0.3	0.02	1.4	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.11 9	0.3 00	105.28 0	0.4	0.03	1.6	Sur char ged
FEH: 30 years: +40 %: 4320 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.10 8	0.3 00	105.19 8	0.3	0.02	1.0	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.11 2	0.3 00	115.48 2	0.3	0.02	1.3	Sur char ged
FEH: 30 years: +40 %: 5760 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.08 7	0.3 00	115.49 0	0.3	0.01	0.9	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.10 6	0.3 00	125.15 6	0.3	0.02	1.1	Sur char ged
FEH: 30 years: +40 %: 7200 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.06 6	0.3 00	124.88 3	0.3	0.01	0.7	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.10 1	0.3 00	134.20 2	0.3	0.02	1.0	Sur char ged
FEH: 30 years: +40 %: 8640 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.04 5	0.3 00	133.72 5	0.3	0.01	0.7	OK
FEH: 30 years: +40 %: 10080 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.09 9	0.3 00	142.30 6	0.3	0.02	0.9	Sur char ged
FEH: 30 years: +40 %: 10080 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.02 2	0.3 00	142.15 9	0.3	0.01	0.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.003-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S03-5	Tank	28.711	27.388	0.300	136.323	2.9	2.91	205.8	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S03-5	Tank	28.711	27.360	0.300	136.318	2.8	2.82	199.0	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S03-5	Tank	28.711	27.260	0.300	178.868	2.4	2.45	173.0	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S03-5	Tank	28.711	27.247	0.300	178.906	2.4	2.39	169.3	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S03-5	Tank	28.711	27.235	0.300	222.537	2.3	2.35	165.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S03-5	Tank	28.711	27.171	0.300	222.503	2.1	2.05	145.2	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S03-5	Tank	28.711	27.111	0.300	256.329	1.8	1.75	123.9	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S03-5	Tank	28.711	27.003	0.300	256.306	1.3	1.26	89.0	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S03-5	Tank	28.711	27.062	0.300	279.243	1.4	1.35	95.2	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S03-5	Tank	28.711	27.062	0.300	279.272	1.2	0.93	65.8	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.10 6	0.3 00	297.39 8	1.3	1.1	78. 1	Sur char ged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.10 6	0.3 00	297.38 1	1.1	0.75	53. 0	Sur char ged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.17 1	0.3 00	326.30 3	1.1	0.84	59. 1	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.17 1	0.3 00	326.32 1	1.0	0.55	39. 0	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.21 9	0.3 00	349.62 9	1.1	0.69	48. 6	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.22 0	0.3 00	349.65 6	0.9	0.44	31. 4	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.25 6	0.3 00	369.48 0	1.0	0.58	41. 2	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.25 7	0.3 00	369.55 5	0.9	0.38	26. 6	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.28 6	0.3 00	387.13 0	1.0	0.51	35. 9	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.28 7	0.3 00	387.06 6	0.9	0.33	23. 0	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.33 0	0.3 00	417.45 5	0.9	0.4	28. 6	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.33 3	0.3 00	417.44 9	0.8	0.26	18. 4	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.38 1	0.3 00	466.11 0	0.8	0.3	21. 1	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.38 8	0.3 00	466.18 0	0.7	0.19	13. 4	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.40 7	0.3 00	522.53 7	0.7	0.22	15. 4	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.41 8	0.3 00	522.52 6	0.7	0.14	9.9	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.41 0	0.3 00	567.80 8	0.7	0.18	12. 5	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.42 2	0.3 00	568.00 3	0.6	0.11	8.0	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.40 4	0.3 00	637.64 5	0.6	0.13	9.3	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.40 3	0.3 00	637.32 4	0.6	0.08	6.0	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.39 3	0.3 00	693.04 8	0.6	0.11	7.6	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.38 3	0.3 00	693.61 4	0.6	0.07	4.9	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.38 2	0.3 00	743.28 4	0.6	0.09	6.6	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.35 9	0.3 00	743.41 1	0.5	0.06	4.2	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.37 3	0.3 00	790.43 5	0.6	0.08	5.8	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.33 3	0.3 00	789.22 2	0.5	0.05	3.8	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.36 6	0.3 00	834.36 3	0.6	0.07	5.3	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.30 9	0.3 00	834.84 2	0.5	0.05	3.4	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.001-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S07-5	S06 - 5	28.888	28.063	0.300	30.979	0.8	0.72	51.2	OK
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S07-5	S06 - 5	28.888	28.030	0.279	30.952	0.8	0.82	58.1	OK
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.981	0.210	40.729	0.9	0.67	47.0	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.972	0.200	40.729	0.9	0.62	44.1	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.962	0.189	51.135	0.9	0.58	40.9	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.939	0.163	51.123	0.8	0.47	32.9	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.926	0.147	59.206	0.8	0.4	28.1	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.902	0.121	59.204	0.8	0.29	20.2	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.907	0.126	64.679	0.8	0.31	21.7	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.885	0.102	64.697	0.7	0.21	14.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.89 5	0.1 13	68.993	0.7	0.25	17. 9	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.87 5	0.0 90	68.999	0.7	0.17	12. 0	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.88 0	0.0 96	75.773	0.7	0.19	13. 4	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.86 3	0.0 77	75.786	0.6	0.13	8.8	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.87 2	0.0 86	81.215	0.7	0.16	11. 0	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.85 6	0.0 69	81.180	0.6	0.1	7.1	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.86 5	0.0 79	85.781	0.6	0.13	9.3	OK
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.85 1	0.0 63	85.776	0.6	0.09	6.0	OK
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.86 0	0.0 74	89.772	0.6	0.12	8.1	OK
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 7	0.0 59	89.772	0.5	0.07	5.3	OK
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.85 3	0.0 66	96.594	0.6	0.09	6.6	OK
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.84 1	0.0 53	96.594	0.5	0.06	4.2	OK
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 5	0.0 57	107.39 4	0.5	0.07	4.9	OK
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 5	0.0 45	107.51 4	0.5	0.04	3.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 8	0.0 49	119.52 6	0.5	0.05	3.6	OK
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 9	0.0 39	119.43 6	0.4	0.03	2.3	OK
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 3	0.0 44	129.16 2	0.5	0.04	2.9	OK
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 5	0.0 35	129.33 6	0.4	0.03	1.9	OK
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 8	0.0 38	144.69 6	0.4	0.03	2.2	OK
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 1	0.0 31	144.56 4	0.4	0.02	1.4	OK
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 5	0.0 34	156.85 2	0.4	0.03	1.8	OK
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 28	157.26 6	0.3	0.02	1.1	OK
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 2	0.0 32	168.06 6	0.4	0.02	1.5	OK
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 7	0.0 26	168.22 2	0.3	0.01	1.0	OK
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 0	0.0 30	178.54 2	0.4	0.02	1.4	OK
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 5	0.0 24	178.62 6	0.3	0.01	0.9	OK
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.81 9	0.0 29	189.06 0	0.4	0.02	1.2	OK
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 4	0.0 23	189.03 6	0.3	0.01	0.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.000-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S01-5	S02 - 5	28.623	28.042	0.300	4.516	0.8	0.81	57.3	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S01-5	S02 - 5	28.623	28.005	0.300	4.492	0.7	0.75	52.9	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.886	0.300	5.817	0.9	0.93	65.6	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.879	0.300	5.837	0.8	0.84	59.6	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.857	0.300	7.291	0.3	0.25	17.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.672	0.300	7.244	0.2	0.14	10.2	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.479	0.300	8.401	0.2	0.14	9.6	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.188	0.281	8.381	0.1	0.06	4.6	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.233	0.300	8.882	0.1	0.09	6.2	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.061	0.155	8.890	0.1	0.03	2.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.11 9	0.2 12	9.179	0.1	0.06	4.3	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.10 5	0.1 99	9.189	0.1	0.02	1.7	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.17 0	0.2 64	9.721	0.1	0.03	1.9	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.17 1	0.2 65	9.723	0.1	0.02	1.2	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.21 9	0.3 00	10.240	0.1	0.02	1.6	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.21 9	0.3 00	10.230	0.1	0.01	1.0	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.25 6	0.3 00	10.728	0.1	0.02	1.3	OK
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.25 7	0.3 00	10.745	0.1	0.01	0.8	OK
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.28 6	0.3 00	11.267	0.1	0.02	1.1	OK
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.28 7	0.3 00	11.256	0.1	0.01	0.7	OK
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.33 0	0.3 00	12.285	0.1	0.01	0.9	Sur charged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.33 3	0.3 00	12.308	0.1	0.01	0.6	Sur charged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.38 2	0.3 00	14.322	0.1	0.01	0.7	Sur charged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.38 8	0.3 00	14.306	0.1	0.01	0.5	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.40 7	0.3 00	16.927	0.1	0.01	0.5	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.41 8	0.3 00	16.977	0.1	0	0.3	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.41 0	0.3 00	18.292	0.1	0.01	0.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.42 2	0.3 00	18.423	0.1	0	0.3	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.40 4	0.3 00	20.643	0.1	0	0.3	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.40 4	0.3 00	20.641	0.1	0	0.2	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.39 3	0.3 00	22.064	0.1	0	0.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.38 3	0.3 00	22.290	0.1	0	0.2	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.38 2	0.3 00	23.851	0.1	0	0.2	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.35 9	0.3 00	23.519	0.1	0	0.1	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.37 3	0.3 00	25.536	0.1	0	0.2	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.33 3	0.3 00	25.103	0.0	0	0.1	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.36 6	0.3 00	26.994	0.1	0	0.2	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.30 9	0.3 00	26.980	0.0	0	0.1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.001-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	28.298	0.300	90.590	1.6	1.59	112.4	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	28.213	0.300	90.587	1.6	1.56	110.0	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.947	0.300	119.322	1.6	1.55	109.8	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.919	0.300	119.354	1.6	1.56	110.4	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.860	0.300	149.274	1.5	1.5	106.0	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.671	0.300	149.252	1.4	1.36	96.4	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.478	0.300	172.166	1.2	1.16	82.2	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.187	0.300	172.147	0.8	0.84	59.1	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S02 - 5	S03 - 5	28.622	27.232	0.300	187.476	0.9	0.89	63.2	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S02 - 5	S03 - 5	28.622	27.061	0.276	187.486	0.7	0.62	43.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.11 9	0.3 00	199.48 9	0.7	0.73	51. 7	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.10 5	0.3 00	199.49 1	0.7	0.5	35. 2	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.17 0	0.3 00	218.64 5	0.7	0.56	39. 3	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.17 1	0.3 00	218.62 7	0.7	0.37	25. 9	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.21 8	0.3 00	234.10 6	0.7	0.46	32. 2	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.21 9	0.3 00	234.09 5	0.7	0.3	20. 9	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.25 6	0.3 00	247.27 4	0.7	0.39	27. 3	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.25 7	0.3 00	247.30 7	0.6	0.25	17. 6	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.28 6	0.3 00	258.95 6	0.7	0.34	23. 8	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.28 7	0.3 00	258.91 2	0.6	0.22	15. 4	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.33 0	0.3 00	279.05 1	0.6	0.27	19. 2	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.33 3	0.3 00	279.07 0	0.6	0.18	12. 4	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.38 1	0.3 00	311.39 4	0.6	0.2	14. 3	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.38 8	0.3 00	311.42 6	0.6	0.13	9.2	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.40 7	0.3 00	348.79 4	0.6	0.15	10. 6	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.41 8	0.3 00	348.78 7	0.5	0.1	6.8	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.41 0	0.3 00	378.13 0	0.5	0.12	8.6	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.42 2	0.3 00	378.28 1	0.5	0.08	5.5	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.40 4	0.3 00	423.13 9	0.5	0.09	6.4	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.40 4	0.3 00	423.06 5	0.5	0.06	4.1	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.39 3	0.3 00	459.93 6	0.5	0.07	5.2	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.38 3	0.3 00	460.21 0	0.4	0.05	3.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.38 2	0.3 00	493.53 5	0.5	0.06	4.5	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.35 9	0.3 00	493.24 5	0.4	0.04	2.9	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.37 3	0.3 00	524.85 4	0.5	0.06	4.0	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.33 3	0.3 00	523.91 6	0.4	0.04	2.6	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.36 6	0.3 00	554.14 6	0.4	0.05	3.6	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.30 9	0.3 00	554.13 2	0.4	0.03	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
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Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.002-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S03 - 5	S03-5	28.792	28.062	0.300	136.431	3.0	3.02	214.0	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.986	0.300	136.426	2.9	2.91	205.7	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.725	0.300	179.638	2.5	2.51	177.6	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.686	0.300	179.678	2.4	2.44	172.5	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.648	0.300	224.386	2.3	2.34	165.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.490	0.300	224.362	2.1	2.05	145.2	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.344	0.300	258.836	1.8	1.75	123.9	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.120	0.300	258.808	1.3	1.26	89.1	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.155	0.300	282.055	1.3	1.35	95.3	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.062	0.300	282.068	1.0	0.93	65.9	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
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FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.10 5	0.3 00	300.40 0	1.1	1.1	78. 1	Sur char ged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.10 6	0.3 00	300.36 1	1.0	0.75	53. 0	Sur char ged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.17 0	0.3 00	329.53 7	1.0	0.84	59. 2	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.17 1	0.3 00	329.52 7	0.9	0.55	39. 0	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.21 8	0.3 00	352.98 8	0.9	0.69	48. 6	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.22 0	0.3 00	352.98 3	0.9	0.44	31. 4	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.25 6	0.3 00	372.90 2	0.9	0.58	41. 2	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.25 7	0.3 00	372.94 4	0.8	0.38	26. 6	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.28 6	0.3 00	390.57 3	0.9	0.51	35. 9	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.28 7	0.3 00	390.47 6	0.8	0.33	23. 2	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.33 0	0.3 00	420.85 3	0.8	0.41	28. 9	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.33 3	0.3 00	420.81 9	0.7	0.26	18. 7	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.38 1	0.3 00	469.22 2	0.8	0.3	21. 4	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.38 8	0.3 00	469.28 0	0.7	0.19	13. 7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
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Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.40 7	0.3 00	524.97 8	0.7	0.22	15. 7	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.41 8	0.3 00	524.96 3	0.6	0.14	10. 1	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.41 0	0.3 00	569.24 7	0.7	0.18	12. 7	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.42 2	0.3 00	569.44 5	0.6	0.12	8.2	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.40 4	0.3 00	637.69 9	0.6	0.13	9.5	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.40 4	0.3 00	637.36 7	0.6	0.09	6.1	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.39 3	0.3 00	693.09 7	0.6	0.11	7.8	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.38 3	0.3 00	693.65 3	0.5	0.07	5.0	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.38 2	0.3 00	743.32 8	0.6	0.09	6.7	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.35 9	0.3 00	743.44 6	0.5	0.06	4.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.37 3	0.3 00	790.47 6	0.5	0.08	5.9	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.33 3	0.3 00	789.25 6	0.5	0.05	3.8	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.36 6	0.3 00	834.40 1	0.5	0.08	5.4	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.30 9	0.3 00	834.87 3	0.5	0.05	3.5	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-2.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.866	0.300	4.412	0.8	0.52	55.8	Flood
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.864	0.300	4.402	0.7	0.48	51.6	Flood
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.861	0.300	5.773	0.9	0.6	64.5	Flood
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.858	0.300	5.828	0.8	0.55	58.8	Flood
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.854	0.300	7.261	0.5	0.17	18.0	Flood
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.673	0.300	7.248	0.5	0.06	6.9	Flood Risk
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.480	0.300	8.395	0.5	0.04	4.0	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.282	0.115	8.380	0.5	0.03	2.9	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.283	0.138	9.180	0.5	0.03	3.1	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.279	0.045	9.184	0.5	0.02	2.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.28 0	0.0 80	9.782	0.5	0.02	2.5	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 6	0.0 62	9.787	0.5	0.02	1.7	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 8	0.0 95	10.750	0.5	0.02	1.9	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 3	0.0 94	10.751	0.5	0.01	1.2	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 5	0.1 19	11.520	0.5	0.01	1.6	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 1	0.1 18	11.508	0.4	0.01	1.0	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.27 3	0.1 37	12.139	0.5	0.01	1.3	OK
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.26 9	0.1 38	12.156	0.4	0.01	0.8	OK
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.28 6	0.1 66	12.733	0.4	0.01	1.1	OK
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.28 7	0.1 68	12.720	0.4	0.01	0.7	OK
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.33 0	0.2 10	13.699	0.4	0.01	0.9	OK
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.33 3	0.2 14	13.728	0.4	0.01	0.6	OK
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.38 2	0.2 62	15.270	0.4	0.01	0.7	OK
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.38 8	0.2 68	15.269	0.3	0	0.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.40 7	0.2 88	16.943	0.3	0	0.5	OK
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.41 8	0.2 99	16.995	0.3	0	0.3	OK
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.41 0	0.2 90	18.292	0.3	0	0.4	OK
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.42 2	0.3 00	18.422	0.3	0	0.3	OK
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.40 4	0.2 84	20.642	0.3	0	0.3	OK
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.40 4	0.2 84	20.640	0.3	0	0.2	OK
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.39 3	0.2 73	22.063	0.3	0	0.3	OK
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.38 3	0.2 63	22.289	0.3	0	0.2	OK
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.38 2	0.2 63	23.850	0.3	0	0.2	OK
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.35 9	0.2 39	23.518	0.2	0	0.1	OK
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.37 3	0.2 54	25.534	0.3	0	0.2	OK
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.33 3	0.2 13	25.100	0.2	0	0.1	OK
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.36 6	0.2 46	26.990	0.3	0	0.2	OK
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.30 9	0.1 90	26.976	0.2	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.005 - 5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S04-5	EX	28.502	26.667	0.038	2.946	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S04-5	EX	28.502	26.667	0.038	2.970	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S04-5	EX	28.502	26.788	0.037	6.322	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S04-5	EX	28.502	26.788	0.037	6.357	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S04-5	EX	28.502	26.912	0.038	12.116	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S04-5	EX	28.502	26.912	0.038	12.185	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S04-5	EX	28.502	27.003	0.037	24.788	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S04-5	EX	28.502	27.003	0.038	24.925	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S04-5	EX	28.502	27.062	0.038	38.425	0.5	0.06	2.3	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S04-5	EX	28.502	27.062	0.038	38.592	0.5	0.06	2.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S04-5	EX	28.50 2	27.10 5	0.0 38	52.475	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S04-5	EX	28.50 2	27.10 5	0.0 38	52.634	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S04-5	EX	28.50 2	27.17 1	0.0 38	81.203	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S04-5	EX	28.50 2	27.17 1	0.0 38	81.307	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S04-5	EX	28.50 2	27.21 8	0.0 38	110.58 5	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S04-5	EX	28.50 2	27.21 9	0.0 38	110.60 1	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S04-5	EX	28.50 2	27.25 5	0.0 38	140.33 7	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S04-5	EX	28.50 2	27.25 7	0.0 38	140.26 3	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S04-5	EX	28.50 2	27.28 5	0.0 38	170.24 9	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S04-5	EX	28.50 2	27.28 7	0.0 38	170.05 4	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S04-5	EX	28.50 2	27.32 9	0.0 38	230.25 8	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S04-5	EX	28.50 2	27.33 3	0.0 38	229.88 4	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S04-5	EX	28.50 2	27.38 1	0.0 38	349.31 8	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S04-5	EX	28.50 2	27.38 7	0.0 38	348.67 1	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S04-5	EX	28.50 2	27.40 7	0.0 38	521.30 9	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S04-5	EX	28.50 2	27.41 8	0.0 38	520.30 3	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S04-5	EX	28.50 2	27.40 9	0.0 38	685.68 0	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S04-5	EX	28.50 2	27.42 2	0.0 38	684.65 8	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S04-5	EX	28.50 2	27.40 3	0.0 38	1034.1 88	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S04-5	EX	28.50 2	27.40 3	0.0 38	1033.8 55	0.5	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S04-5	EX	28.50 2	27.39 2	0.0 38	1288.4 09	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S04-5	EX	28.50 2	27.38 2	0.0 38	1289.9 03	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S04-5	EX	28.50 2	27.38 2	0.0 38	1396.7 25	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S04-5	EX	28.50 2	27.35 8	0.0 38	1397.3 69	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S04-5	EX	28.50 2	27.37 3	0.0 38	1485.6 30	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S04-5	EX	28.50 2	27.33 2	0.0 38	1484.3 82	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S04-5	EX	28.50 2	27.36 5	0.0 38	1570.2 70	0.5	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S04-5	EX	28.50 2	27.30 9	0.0 38	1570.4 59	0.5	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.996	0.300	63.783	1.7	0.99	123.5	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.949	0.279	63.775	1.8	0.98	121.4	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.860	0.214	84.033	1.8	0.78	97.0	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.848	0.204	84.027	1.8	0.73	91.0	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.836	0.194	105.496	1.7	0.68	84.4	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.807	0.168	105.472	1.7	0.55	67.9	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.790	0.152	122.147	1.6	0.47	58.0	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.760	0.125	122.138	1.5	0.34	41.7	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.766	0.130	133.433	1.5	0.36	44.7	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.739	0.106	133.487	1.4	0.25	30.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.75 1	0.1 17	142.31 9	1.4	0.3	36. 9	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.72 7	0.0 94	142.34 3	1.3	0.2	24. 8	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.73 3	0.1 00	156.31 1	1.3	0.22	27. 7	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.71 1	0.0 80	156.33 8	1.2	0.15	18. 2	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.72 2	0.0 90	167.52 5	1.3	0.18	22. 7	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.70 2	0.0 71	167.48 9	1.1	0.12	14. 7	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.71 4	0.0 82	176.96 3	1.2	0.15	19. 3	OK
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.69 6	0.0 65	176.90 3	1.1	0.1	12. 4	OK
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.70 8	0.0 76	185.20 7	1.2	0.13	16. 8	OK
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.69 2	0.0 61	185.16 5	1.1	0.09	10. 8	OK
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 9	0.0 68	199.26 5	1.1	0.11	13. 6	OK
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 5	0.0 55	199.28 9	1.0	0.07	8.8	OK
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 9	0.0 59	221.57 9	1.0	0.08	10. 1	OK
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 7	0.0 47	221.77 7	0.9	0.05	6.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 1	0.0 50	246.56 3	0.9	0.06	7.5	OK
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 0	0.0 41	246.53 9	0.8	0.04	4.8	OK
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 5	0.0 45	266.50 7	0.9	0.05	6.0	OK
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 6	0.0 37	266.72 3	0.8	0.03	3.9	OK
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 9	0.0 39	298.34 3	0.8	0.04	4.5	OK
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 1	0.0 32	298.46 3	0.7	0.02	2.9	OK
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 5	0.0 36	323.65 7	0.8	0.03	3.7	OK
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 8	0.0 29	324.29 3	0.7	0.02	2.4	OK
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 2	0.0 33	347.09 3	0.7	0.03	3.1	OK
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 6	0.0 27	347.59 7	0.7	0.02	2.0	OK
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 1	0.0 31	368.80 1	0.7	0.02	2.8	OK
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 5	0.0 25	368.46 8	0.6	0.01	1.8	OK
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.65 9	0.0 30	390.46 1	0.7	0.02	2.5	OK
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 3	0.0 24	389.94 5	0.6	0.01	1.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.002-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S08-5	S07-5	28.888	28.326	0.156	2.523	0.1	0.04	5.5	OK
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S08-5	S07-5	28.888	28.325	0.139	2.523	0.2	0.04	5.2	OK
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S08-5	S07-5	28.888	28.319	0.112	3.324	0.2	0.03	3.8	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S08-5	S07-5	28.888	28.318	0.107	3.324	0.2	0.03	3.6	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S08-5	S07-5	28.888	28.317	0.101	4.176	0.2	0.03	3.3	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S08-5	S07-5	28.888	28.314	0.088	4.170	0.2	0.02	2.7	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S08-5	S07-5	28.888	28.312	0.080	4.830	0.2	0.02	2.3	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S08-5	S07-5	28.888	28.308	0.067	4.830	0.1	0.01	1.6	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S08-5	S07-5	28.888	28.309	0.069	5.274	0.1	0.01	1.8	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S08-5	S07-5	28.888	28.305	0.057	5.274	0.1	0.01	1.2	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 7	0.0 62	5.628	0.1	0.01	1.5	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 3	0.0 51	5.628	0.1	0.01	1.0	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 4	0.0 54	6.180	0.1	0.01	1.1	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 1	0.0 43	6.198	0.1	0.01	0.7	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 2	0.0 49	6.630	0.1	0.01	0.9	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 39	6.618	0.1	0	0.6	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 1	0.0 45	6.996	0.1	0.01	0.8	OK
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 36	7.020	0.1	0	0.5	OK
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 0	0.0 42	7.314	0.1	0.01	0.7	OK
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 34	7.338	0.1	0	0.4	OK
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 38	7.896	0.1	0	0.5	OK
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 30	7.878	0.1	0	0.4	OK
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 33	8.718	0.1	0	0.4	OK
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 26	8.808	0.1	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 28	9.780	0.1	0	0.3	OK
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 23	9.678	0.1	0	0.2	OK
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 25	10.500	0.1	0	0.2	OK
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 21	10.602	0.1	0	0.2	OK
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 22	12.012	0.1	0	0.2	OK
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	11.760	0.1	0	0.1	OK
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 20	12.648	0.1	0	0.2	OK
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	12.990	0.1	0	0.1	OK
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	13.488	0.1	0	0.1	OK
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 15	13.476	0.1	0	0.1	OK
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	14.310	0.1	0	0.1	OK
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	14.304	0.1	0	0.1	OK
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	15.246	0.1	0	0.1	OK
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.28 9	0.0 13	15.228	0.1	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.001-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S10-5	S09-5	28.560	26.954	0.300	27.945	0.6	0.72	45.1	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S10-5	S09-5	28.560	26.933	0.300	27.952	0.6	0.72	45.6	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S10-5	S09-5	28.560	26.879	0.283	35.746	0.6	0.68	43.1	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S10-5	S09-5	28.560	26.861	0.267	35.745	0.6	0.64	40.5	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S10-5	S09-5	28.560	26.912	0.300	43.223	0.6	0.6	37.6	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S10-5	S09-5	28.560	26.912	0.300	43.214	0.6	0.48	30.2	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S10-5	S09-5	28.560	27.003	0.300	49.629	0.5	0.41	25.8	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S10-5	S09-5	28.560	27.003	0.300	49.643	0.5	0.3	18.6	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S10-5	S09-5	28.560	27.061	0.300	54.249	0.5	0.3	18.8	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S10-5	S09-5	28.560	27.061	0.300	54.245	0.5	0.21	13.4	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S10-5	S09-5	28.560	27.105	0.300	57.931	0.5	0.25	15.5	Sur charged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S10-5	S09-5	28.560	27.105	0.300	57.927	0.5	0.16	10.4	Sur charged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S10-5	S09-5	28.560	27.170	0.300	63.885	0.4	0.18	11.1	Sur charged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S10-5	S09-5	28.560	27.171	0.300	63.868	0.4	0.12	7.3	Sur charged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S10-5	S09-5	28.560	27.218	0.300	68.707	0.4	0.14	8.8	Sur charged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S10-5	S09-5	28.560	27.219	0.300	68.707	0.4	0.09	5.7	Sur charged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S10-5	S09-5	28.560	27.255	0.300	72.848	0.4	0.12	7.4	Sur charged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S10-5	S09-5	28.560	27.257	0.300	72.841	0.4	0.08	4.8	Sur charged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S10-5	S09-5	28.560	27.285	0.300	76.492	0.4	0.1	6.5	Sur charged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S10-5	S09-5	28.560	27.287	0.300	76.468	0.4	0.07	4.2	Sur charged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S10-5	S09-5	28.560	27.329	0.300	82.770	0.4	0.08	5.1	Sur charged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S10-5	S09-5	28.560	27.333	0.300	82.807	0.4	0.05	3.3	Sur charged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S10-5	S09-5	28.560	27.381	0.300	93.028	0.3	0.06	3.6	Sur charged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S10-5	S09-5	28.560	27.387	0.300	93.046	0.3	0.04	2.4	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.40 7	0.3 00	104.96 0	0.3	0.04	2.7	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.41 8	0.3 00	104.93 4	0.3	0.03	1.8	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.40 9	0.3 00	115.53 2	0.3	0.04	2.2	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.42 2	0.3 00	115.61 4	0.3	0.02	1.5	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.40 3	0.3 00	132.74 2	0.3	0.03	1.7	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.40 3	0.3 00	132.81 9	0.3	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.39 2	0.3 00	144.22 5	0.3	0.02	1.4	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.38 2	0.3 00	144.34 5	0.2	0.01	0.9	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.38 2	0.3 00	154.75 5	0.2	0.02	1.2	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.35 8	0.3 00	154.75 4	0.2	0.01	0.8	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.37 3	0.3 00	164.24 6	0.2	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.33 2	0.3 00	164.43 2	0.2	0.01	0.7	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.36 5	0.3 00	173.82 8	0.2	0.02	1.0	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.30 9	0.3 00	173.82 1	0.2	0.01	0.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S09-5	Tank	28.846	26.918	0.300	55.751	1.5	1.48	104.5	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S09-5	Tank	28.846	26.901	0.294	55.749	1.4	1.42	100.1	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S09-5	Tank	28.846	26.851	0.261	71.751	1.3	1.22	86.0	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S09-5	Tank	28.846	26.836	0.250	71.759	1.3	1.14	80.8	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S09-5	Tank	28.846	26.913	0.300	88.160	1.2	1.06	74.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S09-5	Tank	28.846	26.912	0.300	88.175	1.1	0.85	60.3	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S09-5	Tank	28.846	27.004	0.300	101.578	1.1	0.73	51.5	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S09-5	Tank	28.846	27.003	0.300	101.611	1.0	0.52	37.0	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S09-5	Tank	28.846	27.062	0.300	111.005	1.0	0.54	38.4	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S09-5	Tank	28.846	27.062	0.300	111.019	0.9	0.38	26.9	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.10 6	0.3 00	118.50 2	0.9	0.44	31. 4	Sur char ged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.10 6	0.3 00	118.53 6	0.8	0.29	20. 8	Sur char ged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.17 1	0.3 00	130.52 6	0.8	0.32	22. 7	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.17 1	0.3 00	130.52 8	0.7	0.21	14. 9	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.21 9	0.3 00	140.22 6	0.8	0.25	18. 0	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.21 9	0.3 00	140.20 5	0.7	0.16	11. 6	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.25 6	0.3 00	148.48 9	0.7	0.22	15. 3	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.25 7	0.3 00	148.49 5	0.7	0.14	9.8	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.28 6	0.3 00	155.81 0	0.7	0.19	13. 3	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.28 7	0.3 00	155.75 0	0.6	0.12	8.6	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.33 0	0.3 00	168.31 7	0.6	0.15	10. 5	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.33 3	0.3 00	168.35 8	0.6	0.1	6.9	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.38 1	0.3 00	188.58 0	0.6	0.11	7.9	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.38 7	0.3 00	188.64 5	0.5	0.07	5.1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.40 7	0.3 00	212.04 9	0.5	0.08	5.9	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.41 8	0.3 00	212.03 9	0.5	0.05	3.8	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.41 0	0.3 00	232.00 9	0.5	0.07	4.8	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.42 2	0.3 00	231.89 7	0.5	0.04	3.1	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.40 4	0.3 00	264.60 5	0.5	0.05	3.6	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.40 3	0.3 00	264.98 3	0.4	0.03	2.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.39 2	0.3 00	287.76 4	0.4	0.04	3.0	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.38 3	0.3 00	287.95 6	0.4	0.03	1.9	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.38 2	0.3 00	308.70 6	0.4	0.04	2.6	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.35 9	0.3 00	308.68 6	0.4	0.02	1.6	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.37 3	0.3 00	327.73 6	0.4	0.03	2.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.33 3	0.3 00	328.01 8	0.4	0.02	1.5	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.36 6	0.3 00	346.44 5	0.4	0.03	2.1	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.30 9	0.3 00	346.66 0	0.4	0.02	1.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.0003--5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S12-5	S11-5	28.755	27.319	0.225	28.229	1.5	1.04	60.8	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S12-5	S11-5	28.755	27.252	0.217	28.254	1.5	0.99	57.5	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S12-5	S11-5	28.755	27.173	0.152	37.416	1.5	0.74	43.2	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S12-5	S11-5	28.755	27.165	0.145	37.416	1.5	0.7	40.5	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S12-5	S11-5	28.755	27.157	0.138	46.938	1.5	0.65	37.6	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S12-5	S11-5	28.755	27.137	0.120	46.922	1.4	0.52	30.2	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S12-5	S11-5	28.755	27.125	0.109	54.355	1.4	0.44	25.8	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S12-5	S11-5	28.755	27.105	0.097	54.361	1.2	0.32	18.6	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S12-5	S11-5	28.755	27.109	0.139	59.346	1.3	0.34	19.9	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S12-5	S11-5	28.755	27.090	0.139	59.342	1.2	0.24	13.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.10 6	0.1 83	63.213	1.2	0.28	16. 4	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.10 6	0.1 83	63.213	1.1	0.19	11. 0	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.17 0	0.2 25	69.350	1.1	0.21	12. 3	OK
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.17 1	0.2 25	69.340	1.0	0.14	8.1	OK
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.21 8	0.2 25	74.264	1.1	0.17	10. 1	OK
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.21 9	0.2 25	74.273	0.9	0.11	6.6	OK
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.25 6	0.2 25	78.451	1.0	0.15	8.6	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.25 7	0.2 25	78.454	0.9	0.1	5.5	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.28 6	0.2 25	82.115	1.0	0.13	7.5	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.28 7	0.2 25	82.101	0.9	0.08	4.8	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.33 0	0.2 25	88.382	0.9	0.1	6.0	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.33 3	0.2 25	88.432	0.8	0.07	3.9	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.38 1	0.2 25	98.485	0.9	0.08	4.5	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.38 8	0.2 25	98.520	0.8	0.05	2.9	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.40 7	0.2 25	109.77 7	0.8	0.06	3.3	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.41 8	0.2 25	109.77 2	0.7	0.04	2.1	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.41 0	0.2 25	118.66 1	0.7	0.05	2.7	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.42 2	0.2 25	118.78 7	0.6	0.03	1.7	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.40 4	0.2 25	132.72 3	0.7	0.03	2.0	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.40 3	0.2 25	132.80 6	0.6	0.02	1.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.39 3	0.2 25	144.20 9	0.6	0.03	1.6	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.38 3	0.2 25	144.33 3	0.6	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.38 2	0.2 25	154.74 1	0.6	0.02	1.4	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.35 9	0.2 25	154.74 4	0.5	0.02	0.9	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.37 3	0.2 25	164.23 4	0.6	0.02	1.2	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.33 3	0.2 25	164.42 2	0.5	0.01	0.8	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.36 6	0.2 25	173.81 6	0.6	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.30 9	0.2 25	173.81 3	0.5	0.01	0.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-4.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S13-5	S09-5	28.754	27.308	0.225	27.986	1.5	1.05	60.9	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S13-5	S09-5	28.754	27.240	0.225	28.001	1.4	0.97	56.6	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S13-5	S09-5	28.754	27.096	0.185	36.975	1.3	0.74	42.9	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S13-5	S09-5	28.754	27.088	0.175	36.998	1.3	0.69	40.3	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S13-5	S09-5	28.754	27.081	0.164	46.505	1.3	0.64	37.4	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S13-5	S09-5	28.754	27.062	0.154	46.536	1.3	0.52	30.0	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S13-5	S09-5	28.754	27.050	0.216	53.784	1.2	0.44	25.7	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S13-5	S09-5	28.754	27.031	0.216	53.793	1.2	0.32	18.5	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S13-5	S09-5	28.754	27.062	0.225	58.662	1.2	0.34	19.8	OK
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S13-5	S09-5	28.754	27.062	0.225	58.683	1.2	0.24	13.7	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.10 5	0.2 25	62.511	1.2	0.28	16. 4	OK
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.10 6	0.2 25	62.572	1.1	0.19	11. 0	OK
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.17 1	0.2 25	68.646	1.1	0.21	12. 3	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.17 1	0.2 25	68.691	1.0	0.14	8.1	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.21 9	0.2 25	73.566	1.0	0.17	10. 1	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.21 9	0.2 25	73.567	0.9	0.11	6.5	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.25 6	0.2 25	77.713	1.0	0.15	8.5	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.25 7	0.2 25	77.745	0.9	0.09	5.5	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.28 6	0.2 25	81.404	0.9	0.13	7.4	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.28 7	0.2 25	81.384	0.8	0.08	4.8	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.33 0	0.2 25	87.638	0.9	0.1	6.0	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.33 3	0.2 25	87.655	0.8	0.07	3.9	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.38 1	0.2 25	97.599	0.8	0.08	4.5	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.38 8	0.2 25	97.658	0.7	0.05	2.9	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.40 7	0.2 25	108.98 8	0.7	0.06	3.3	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.41 8	0.2 25	109.01 4	0.7	0.04	2.1	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.41 0	0.2 25	118.02 6	0.7	0.05	2.7	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.42 2	0.2 25	117.84 6	0.6	0.03	1.7	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.40 4	0.2 25	131.86 1	0.6	0.03	2.0	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.40 3	0.2 25	132.16 6	0.6	0.02	1.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.39 3	0.2 25	143.54 1	0.6	0.03	1.6	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.38 3	0.2 25	143.61 6	0.5	0.02	1.0	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.38 2	0.2 25	153.95 3	0.5	0.02	1.4	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.35 9	0.2 25	153.93 8	0.5	0.02	0.9	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.37 3	0.2 25	163.49 3	0.5	0.02	1.2	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.33 3	0.2 25	163.59 2	0.5	0.01	0.8	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.36 6	0.2 25	172.62 0	0.5	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.30 9	0.2 25	172.84 5	0.5	0.01	0.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.004-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	Tank	S04-5	28.670	26.667	0.225	3.534	0.4	0.07	3.0	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	Tank	S04-5	28.670	26.667	0.225	3.558	0.4	0.07	3.0	Surcharged
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	Tank	S04-5	28.670	26.789	0.225	7.047	0.3	0.07	2.9	Surcharged
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	Tank	S04-5	28.670	26.789	0.225	7.082	0.3	0.07	2.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	Tank	S04-5	28.670	26.913	0.225	12.977	0.1	0.07	2.9	Surcharged
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	Tank	S04-5	28.670	26.913	0.225	13.045	0.3	0.07	2.8	Surcharged
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	Tank	S04-5	28.670	27.004	0.225	25.742	0.2	0.07	2.7	Surcharged
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	Tank	S04-5	28.670	27.004	0.225	25.879	0.3	0.06	2.6	Surcharged
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	Tank	S04-5	28.670	27.062	0.225	39.435	0.2	0.06	2.6	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	Tank	S04-5	28.670	27.062	0.225	39.602	0.2	0.06	2.5	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	Tank	S04-5	28.670	27.106	0.225	53.523	0.2	0.06	2.5	Sur charged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	Tank	S04-5	28.670	27.106	0.225	53.682	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	Tank	S04-5	28.670	27.171	0.225	82.299	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	Tank	S04-5	28.670	27.171	0.225	82.403	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	Tank	S04-5	28.670	27.219	0.225	111.708	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	Tank	S04-5	28.670	27.220	0.225	111.724	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	Tank	S04-5	28.670	27.256	0.225	141.475	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	Tank	S04-5	28.670	27.257	0.225	141.402	0.2	0.06	2.3	Sur charged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	Tank	S04-5	28.670	27.286	0.225	171.394	0.2	0.06	2.4	Sur charged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	Tank	S04-5	28.670	27.287	0.225	171.199	0.2	0.06	2.3	Sur charged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	Tank	S04-5	28.670	27.330	0.225	231.397	0.2	0.06	2.3	Sur charged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	Tank	S04-5	28.670	27.333	0.225	231.023	0.2	0.06	2.3	Sur charged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	Tank	S04-5	28.670	27.381	0.225	350.405	0.2	0.06	2.3	Sur charged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	Tank	S04-5	28.670	27.388	0.225	349.760	0.2	0.06	2.3	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.40 7	0.2 25	522.27 2	0.2	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.41 8	0.2 25	521.26 7	0.2	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.41 0	0.2 25	686.49 8	0.2	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.42 2	0.2 25	685.47 9	0.1	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.40 4	0.2 25	1034.6 16	0.2	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.40 3	0.2 25	1034.2 85	0.1	0.06	2.4	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.39 2	0.2 25	1288.4 84	0.2	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.38 3	0.2 25	1289.9 78	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.38 2	0.2 25	1396.7 39	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.35 9	0.2 25	1397.3 82	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.37 3	0.2 25	1485.6 36	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.33 3	0.2 25	1484.3 88	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.36 6	0.2 25	1570.2 74	0.1	0.06	2.3	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.30 9	0.2 25	1570.4 63	0.1	0.06	2.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.002-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 100 years: +45 %: 15 mins: Summer	Pipe	S11-5	S10-5	28.558	27.075	0.300	28.395	0.7	0.8	48.8	Surcharged
FEH: 100 years: +45 %: 15 mins: Winter	Pipe	S11-5	S10-5	28.558	27.026	0.298	28.407	0.7	0.79	48.2	OK
FEH: 100 years: +45 %: 30 mins: Summer	Pipe	S11-5	S10-5	28.558	26.963	0.239	37.383	0.8	0.7	43.1	OK
FEH: 100 years: +45 %: 30 mins: Winter	Pipe	S11-5	S10-5	28.558	26.946	0.222	37.384	0.8	0.66	40.5	OK
FEH: 100 years: +45 %: 60 mins: Summer	Pipe	S11-5	S10-5	28.558	26.933	0.231	45.929	0.7	0.61	37.6	OK
FEH: 100 years: +45 %: 60 mins: Winter	Pipe	S11-5	S10-5	28.558	26.913	0.230	45.920	0.7	0.49	30.2	OK
FEH: 100 years: +45 %: 120 mins: Summer	Pipe	S11-5	S10-5	28.558	27.003	0.300	52.670	0.7	0.42	25.8	OK
FEH: 100 years: +45 %: 120 mins: Winter	Pipe	S11-5	S10-5	28.558	27.003	0.300	52.679	0.7	0.3	18.6	OK
FEH: 100 years: +45 %: 180 mins: Summer	Pipe	S11-5	S10-5	28.558	27.062	0.300	57.387	0.7	0.33	19.9	Surcharged
FEH: 100 years: +45 %: 180 mins: Winter	Pipe	S11-5	S10-5	28.558	27.062	0.300	57.376	0.6	0.22	13.7	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 240 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.10 6	0.3 00	61.124	0.7	0.27	16. 4	Sur char ged
FEH: 100 years: +45 %: 240 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.10 6	0.3 00	61.112	0.6	0.18	11. 1	Sur char ged
FEH: 100 years: +45 %: 360 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.17 0	0.3 00	67.136	0.6	0.2	12. 3	Sur char ged
FEH: 100 years: +45 %: 360 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.17 1	0.3 00	67.109	0.6	0.13	8.1	Sur char ged
FEH: 100 years: +45 %: 480 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.21 8	0.3 00	71.986	0.6	0.17	10. 1	Sur char ged
FEH: 100 years: +45 %: 480 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.21 9	0.3 00	71.976	0.5	0.11	6.6	Sur char ged
FEH: 100 years: +45 %: 600 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.25 6	0.3 00	76.140	0.6	0.14	8.6	Sur char ged
FEH: 100 years: +45 %: 600 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.25 7	0.3 00	76.123	0.5	0.09	5.5	Sur char ged
FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.28 6	0.3 00	79.787	0.5	0.12	7.4	Sur char ged
FEH: 100 years: +45 %: 720 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.28 7	0.3 00	79.753	0.5	0.08	4.8	Sur char ged
FEH: 100 years: +45 %: 960 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.33 0	0.3 00	86.053	0.5	0.1	5.9	Sur char ged
FEH: 100 years: +45 %: 960 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.33 3	0.3 00	86.081	0.5	0.06	3.8	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.38 1	0.3 00	96.242	0.4	0.07	4.1	Sur char ged
FEH: 100 years: +45 %: 1440 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.38 8	0.3 00	96.253	0.4	0.05	2.8	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 100 years: +45 %: 2160 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.40 7	0.3 00	107.97 4	0.4	0.05	3.0	Sur char ged
FEH: 100 years: +45 %: 2160 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.41 8	0.3 00	107.94 3	0.4	0.03	2.1	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.41 0	0.3 00	117.92 1	0.4	0.04	2.4	Sur char ged
FEH: 100 years: +45 %: 2880 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.42 2	0.3 00	118.01 3	0.4	0.03	1.6	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.40 4	0.3 00	132.79 7	0.4	0.03	1.8	Sur char ged
FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.40 3	0.3 00	132.86 7	0.3	0.02	1.2	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.39 3	0.3 00	144.27 7	0.3	0.02	1.5	Sur char ged
FEH: 100 years: +45 %: 5760 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.38 3	0.3 00	144.38 9	0.3	0.02	1.0	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.38 2	0.3 00	154.80 4	0.3	0.02	1.3	Sur char ged
FEH: 100 years: +45 %: 7200 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.35 9	0.3 00	154.79 6	0.3	0.01	0.9	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.37 3	0.3 00	164.29 4	0.3	0.02	1.1	Sur char ged
FEH: 100 years: +45 %: 8640 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.33 3	0.3 00	164.47 2	0.3	0.01	0.8	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.36 6	0.3 00	173.87 4	0.3	0.02	1.0	Sur char ged
FEH: 100 years: +45 %: 10080 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.30 9	0.3 00	173.86 0	0.3	0.01	0.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.003-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S03-5	Tank	28.711	27.453	0.300	152.820	3.1	3.12	220.6	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S03-5	Tank	28.711	27.418	0.300	152.777	3.0	3.01	212.7	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S03-5	Tank	28.711	27.293	0.300	200.861	2.6	2.58	182.4	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S03-5	Tank	28.711	27.274	0.300	200.849	2.5	2.51	177.1	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S03-5	Tank	28.711	27.257	0.300	250.504	2.4	2.44	172.2	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S03-5	Tank	28.711	27.226	0.300	250.507	2.3	2.31	163.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S03-5	Tank	28.711	27.156	0.300	287.582	2.0	1.98	140.0	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S03-5	Tank	28.711	27.097	0.300	287.617	1.4	1.42	100.4	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S03-5	Tank	28.711	27.165	0.300	313.783	1.5	1.52	107.8	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S03-5	Tank	28.711	27.165	0.300	313.813	1.2	1.05	74.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.21 7	0.3 00	334.92 5	1.3	1.26	89. 0	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.21 8	0.3 00	334.97 5	1.1	0.85	60. 0	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.29 7	0.3 00	369.25 4	1.2	0.95	67. 1	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.29 8	0.3 00	369.27 8	1.0	0.63	44. 3	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.35 7	0.3 00	396.96 0	1.1	0.78	55. 4	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.35 8	0.3 00	397.02 2	1.0	0.51	35. 7	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.40 3	0.3 00	420.53 2	1.0	0.65	46. 3	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.40 6	0.3 00	420.55 5	0.9	0.42	29. 8	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.44 2	0.3 00	441.24 7	1.0	0.57	40. 0	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.44 4	0.3 00	441.25 7	0.9	0.37	25. 8	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.49 9	0.3 00	476.72 7	0.9	0.46	32. 2	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.50 3	0.3 00	476.67 2	0.8	0.29	20. 5	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.56 7	0.3 00	532.67 3	0.8	0.33	23. 4	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.57 4	0.3 00	532.67 5	0.7	0.21	15. 1	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.60 4	0.3 00	595.10 8	0.7	0.24	17. 3	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.61 7	0.3 00	595.03 2	0.7	0.16	11. 2	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.60 7	0.3 00	645.35 1	0.7	0.2	14. 0	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.62 4	0.3 00	644.92 7	0.6	0.13	9.0	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.59 4	0.3 00	722.83 4	0.6	0.15	10. 4	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.60 0	0.3 00	722.88 1	0.6	0.09	6.7	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.57 9	0.3 00	781.70 0	0.6	0.12	8.4	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.57 4	0.3 00	781.82 5	0.6	0.08	5.4	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.56 1	0.3 00	833.06 2	0.6	0.1	7.2	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.54 3	0.3 00	833.41 6	0.5	0.07	4.7	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.54 5	0.3 00	880.61 4	0.6	0.09	6.3	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.51 3	0.3 00	880.99 7	0.5	0.06	4.1	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S03-5	Tank	28.71 1	27.53 2	0.3 00	925.92 2	0.6	0.08	5.7	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S03-5	Tank	28.71 1	27.48 3	0.3 00	925.17 7	0.5	0.05	3.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.001-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S07-5	S06 - 5	28.888	28.260	0.300	34.738	0.9	0.89	62.8	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S07-5	S06 - 5	28.888	28.156	0.300	34.726	0.8	0.76	53.9	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S07-5	S06 - 5	28.888	28.002	0.233	45.937	0.9	0.75	53.0	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.990	0.220	45.937	0.9	0.7	49.8	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.979	0.207	57.897	0.9	0.66	46.3	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.952	0.177	57.897	0.9	0.53	37.3	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.936	0.159	66.874	0.8	0.45	31.7	OK
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.910	0.130	66.868	0.8	0.32	22.8	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.915	0.135	73.120	0.8	0.35	24.5	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.892	0.109	73.109	0.7	0.24	16.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.902	0.121	78.101	0.8	0.29	20.2	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.881	0.097	78.119	0.7	0.19	13.6	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.886	0.103	86.105	0.7	0.22	15.2	OK
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.868	0.082	86.106	0.6	0.14	10.0	OK
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.877	0.092	92.507	0.7	0.18	12.5	OK
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.860	0.073	92.508	0.6	0.11	8.1	OK
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.870	0.085	97.889	0.6	0.15	10.7	OK
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.855	0.067	97.926	0.6	0.1	6.9	OK
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.865	0.079	102.659	0.6	0.13	9.3	OK
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.851	0.063	102.672	0.6	0.09	6.0	OK
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.858	0.071	110.681	0.6	0.11	7.5	OK
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.845	0.056	110.711	0.5	0.07	4.9	OK
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S07-5	S06 - 5	28.888	27.849	0.061	123.233	0.5	0.08	5.6	OK
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S07-5	S06 - 5	28.888	27.838	0.049	123.137	0.5	0.05	3.6	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.84 1	0.0 52	136.91 9	0.5	0.06	4.1	OK
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.83 1	0.0 42	136.88 9	0.4	0.04	2.7	OK
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 6	0.0 47	147.41 9	0.5	0.05	3.3	OK
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 8	0.0 38	147.43 7	0.4	0.03	2.2	OK
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.83 0	0.0 40	163.85 9	0.4	0.04	2.5	OK
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 3	0.0 33	163.90 7	0.4	0.02	1.6	OK
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 6	0.0 36	177.35 4	0.4	0.03	2.0	OK
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.82 0	0.0 30	177.24 5	0.4	0.02	1.3	OK
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 4	0.0 34	188.44 8	0.4	0.02	1.7	OK
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 8	0.0 27	189.06 6	0.3	0.02	1.1	OK
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 2	0.0 32	199.29 6	0.4	0.02	1.5	OK
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 6	0.0 26	199.39 8	0.3	0.01	1.0	OK
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S07-5	S06 - 5	28.88 8	27.82 1	0.0 30	209.39 4	0.4	0.02	1.4	OK
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S07-5	S06 - 5	28.88 8	27.81 5	0.0 25	209.26 2	0.3	0.01	0.9	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.000-5 : Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S01-5	S02 - 5	28.623	28.123	0.300	5.111	1.3	1.28	90.3	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S01-5	S02 - 5	28.623	28.077	0.300	5.042	1.3	1.27	90.0	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.920	0.300	6.594	0.9	0.88	62.3	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.899	0.300	6.582	0.8	0.78	55.4	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.879	0.300	8.265	0.7	0.7	49.3	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.850	0.300	8.245	0.2	0.15	10.8	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.624	0.300	8.760	0.1	0.15	10.5	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.283	0.300	8.764	0.1	0.08	5.3	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.343	0.300	9.056	0.1	0.11	7.6	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.165	0.258	9.053	0.1	0.04	3.0	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.21 8	0.3 00	9.336	0.1	0.07	5.2	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.21 8	0.3 00	9.342	0.1	0.03	2.1	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.29 8	0.3 00	9.985	0.1	0.04	2.7	Sur charged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.29 8	0.3 00	9.991	0.1	0.02	1.4	Sur charged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.35 7	0.3 00	10.643	0.1	0.03	1.8	Sur charged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.35 8	0.3 00	10.627	0.1	0.02	1.1	Sur charged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.40 3	0.3 00	11.219	0.1	0.02	1.5	Sur charged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.40 6	0.3 00	11.170	0.1	0.01	1.0	Sur charged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.44 2	0.3 00	11.779	0.1	0.02	1.3	Sur charged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.44 4	0.3 00	11.778	0.1	0.01	0.8	Sur charged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.49 9	0.3 00	12.915	0.1	0.02	1.1	Sur charged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.50 3	0.3 00	12.873	0.1	0.01	0.7	Sur charged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S01-5	S02 - 5	28.62 3	27.56 7	0.3 00	14.976	0.1	0.01	0.8	Sur charged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S01-5	S02 - 5	28.62 3	27.57 4	0.3 00	14.975	0.1	0.01	0.5	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.604	0.300	17.942	0.1	0.01	0.6	Sur charged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.617	0.300	17.903	0.1	0.01	0.4	Sur charged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.607	0.300	20.637	0.1	0.01	0.5	Sur charged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.624	0.300	20.635	0.1	0	0.3	Sur charged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.594	0.300	23.133	0.1	0	0.4	Sur charged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.600	0.300	23.246	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.579	0.300	25.160	0.1	0	0.3	Sur charged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.574	0.300	24.835	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.561	0.300	26.546	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.543	0.300	26.892	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.545	0.300	28.111	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.513	0.300	28.097	0.0	0	0.1	Sur charged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S01-5	S02 - 5	28.623	27.532	0.300	29.898	0.1	0	0.2	Sur charged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S01-5	S02 - 5	28.623	27.483	0.300	29.405	0.0	0	0.1	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62	28.48	0.300	101.590	1.7	1.67	117.7	Flood Risk
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62	28.37	0.300	101.543	1.6	1.62	114.5	Flood Risk
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62	27.99	0.300	134.524	1.5	1.49	105.0	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62	27.94	0.300	134.516	1.5	1.51	107.0	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62	27.91	0.300	168.360	1.5	1.53	108.2	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62	27.84	0.300	168.357	1.5	1.53	107.9	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62	27.62	0.300	193.024	1.3	1.32	92.9	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62	27.28	0.300	193.029	0.9	0.94	66.6	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62	27.34	0.300	210.376	1.0	1.01	71.5	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62	27.16	0.300	210.372	0.7	0.7	49.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.21 8	0.3 00	224.38 7	0.8	0.84	59.0	Sur charged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.21 8	0.3 00	224.39 6	0.7	0.56	39.8	Sur charged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.29 7	0.3 00	247.20 1	0.7	0.63	44.6	Sur charged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.29 8	0.3 00	247.18 8	0.7	0.42	29.4	Sur charged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.35 7	0.3 00	265.64 1	0.7	0.52	36.7	Sur charged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.35 8	0.3 00	265.63 5	0.7	0.34	23.7	Sur charged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.40 3	0.3 00	281.29 7	0.7	0.44	31.1	Sur charged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.40 6	0.3 00	281.25 9	0.6	0.28	20.1	Sur charged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.44 2	0.3 00	295.03 3	0.7	0.38	27.1	Sur charged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.44 4	0.3 00	295.00 8	0.6	0.25	17.6	Sur charged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.49 9	0.3 00	318.55 0	0.6	0.31	21.9	Sur charged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.50 3	0.3 00	318.49 5	0.6	0.2	14.0	Sur charged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.56 7	0.3 00	355.62 3	0.6	0.23	15.9	Sur charged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.57 4	0.3 00	355.60 0	0.6	0.15	10.3	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.60 4	0.3 00	396.88 5	0.6	0.17	11. 8	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.61 7	0.3 00	396.94 1	0.5	0.11	7.6	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.60 7	0.3 00	430.04 9	0.5	0.13	9.5	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.62 4	0.3 00	430.07 2	0.5	0.09	6.1	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.59 4	0.3 00	479.83 8	0.5	0.1	7.0	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.60 0	0.3 00	479.98 1	0.5	0.06	4.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.57 9	0.3 00	518.82 0	0.5	0.08	5.7	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.57 4	0.3 00	518.76 4	0.5	0.05	3.7	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.56 1	0.3 00	552.91 1	0.5	0.07	4.9	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.54 3	0.3 00	553.00 5	0.4	0.04	3.1	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.54 5	0.3 00	584.46 4	0.5	0.06	4.3	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.51 3	0.3 00	584.83 5	0.4	0.04	2.8	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S02 - 5	S03 - 5	28.62 2	27.53 2	0.3 00	614.95 6	0.4	0.05	3.9	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S02 - 5	S03 - 5	28.62 2	27.48 3	0.3 00	614.04 8	0.4	0.04	2.5	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S03 - 5	S03-5	28.792	28.230	0.300	152.975	3.3	3.26	230.9	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S03 - 5	S03-5	28.792	28.136	0.300	152.931	3.1	3.13	221.3	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.787	0.300	202.245	2.6	2.58	182.4	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.741	0.300	202.234	2.5	2.5	177.3	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.705	0.300	253.070	2.4	2.44	173.0	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.626	0.300	253.070	2.3	2.3	163.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.454	0.300	290.707	2.0	1.98	140.0	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.196	0.300	290.732	1.4	1.42	100.5	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S03 - 5	S03-5	28.792	27.241	0.300	317.231	1.5	1.52	107.8	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S03 - 5	S03-5	28.792	27.165	0.300	317.240	1.1	1.05	74.4	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.21 7	0.3 00	338.59 9	1.3	1.26	89. 1	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.21 8	0.3 00	338.61 7	1.0	0.85	60. 0	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.29 7	0.3 00	373.22 3	1.0	0.95	67. 2	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.29 8	0.3 00	373.20 8	0.9	0.63	44. 3	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.35 6	0.3 00	401.10 5	1.0	0.78	55. 4	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.35 8	0.3 00	401.12 5	0.9	0.5	35. 7	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.40 3	0.3 00	424.77 3	0.9	0.66	46. 7	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.40 6	0.3 00	424.75 9	0.8	0.43	30. 2	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.44 1	0.3 00	445.53 5	0.9	0.58	40. 7	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.44 4	0.3 00	445.51 4	0.8	0.37	26. 3	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.49 9	0.3 00	481.00 7	0.8	0.46	32. 8	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.50 3	0.3 00	480.93 6	0.8	0.3	21. 0	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.56 7	0.3 00	536.71 7	0.8	0.34	23. 9	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.57 4	0.3 00	536.71 5	0.7	0.22	15. 4	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.60 4	0.3 00	598.50 1	0.7	0.25	17. 7	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.61 7	0.3 00	598.43 2	0.6	0.16	11. 4	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.60 7	0.3 00	647.95 4	0.7	0.2	14. 2	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.62 4	0.3 00	647.53 8	0.6	0.13	9.2	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.59 4	0.3 00	723.03 6	0.6	0.15	10. 6	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.60 0	0.3 00	723.10 7	0.6	0.1	6.8	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.57 9	0.3 00	781.74 7	0.6	0.12	8.6	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.57 4	0.3 00	781.86 5	0.5	0.08	5.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.56 1	0.3 00	833.10 6	0.6	0.1	7.3	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.54 3	0.3 00	833.45 2	0.5	0.07	4.7	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.54 5	0.3 00	880.65 6	0.5	0.09	6.4	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.51 3	0.3 00	881.03 2	0.5	0.06	4.2	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S03 - 5	S03-5	28.79 2	27.53 2	0.3 00	925.96 1	0.5	0.08	5.8	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S03 - 5	S03-5	28.79 2	27.48 3	0.3 00	925.21 0	0.5	0.05	3.8	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-2.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.873	0.300	4.984	1.3	0.83	89.6	Flood
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.871	0.300	4.913	1.3	0.83	89.2	Flood
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.868	0.300	6.545	0.9	0.57	61.2	Flood
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.864	0.300	6.543	0.8	0.51	54.5	Flood
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.861	0.300	8.232	0.7	0.45	48.6	Flood
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.850	0.300	8.239	0.5	0.06	6.8	Flood
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.624	0.300	9.491	0.5	0.06	6.8	Flood Risk
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.285	0.164	9.499	0.5	0.03	3.2	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S14 - 5	S01- 5	27.850	27.344	0.224	10.387	0.5	0.03	3.4	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S14 - 5	S01- 5	27.850	27.280	0.092	10.384	0.5	0.02	2.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.28 2	0.1 19	11.084	0.5	0.03	2.9	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.27 8	0.1 18	11.088	0.5	0.02	1.9	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.29 8	0.1 78	12.211	0.5	0.02	2.2	OK
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.29 8	0.1 79	12.215	0.5	0.01	1.4	OK
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.35 7	0.2 38	13.111	0.5	0.02	1.8	OK
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.35 8	0.2 39	13.095	0.4	0.01	1.1	OK
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.40 3	0.2 84	13.807	0.5	0.01	1.5	OK
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.40 6	0.2 86	13.759	0.4	0.01	1.0	OK
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.44 2	0.3 00	14.419	0.5	0.01	1.3	OK
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.44 4	0.3 00	14.419	0.4	0.01	0.8	OK
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.49 9	0.3 00	15.569	0.4	0.01	1.1	OK
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.50 3	0.3 00	15.531	0.4	0.01	0.7	OK
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.56 7	0.3 00	17.427	0.4	0.01	0.8	Flood Risk
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.57 4	0.3 00	17.436	0.3	0	0.5	Flood Risk

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.60 4	0.3 00	19.436	0.4	0.01	0.6	Flood Risk
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.61 7	0.3 00	19.427	0.3	0	0.4	Flood Risk
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.60 7	0.3 00	20.826	0.3	0	0.5	Flood Risk
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.62 4	0.3 00	20.848	0.3	0	0.3	Flood Risk
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.59 4	0.3 00	23.134	0.3	0	0.4	Flood Risk
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.60 0	0.3 00	23.245	0.3	0	0.2	Flood Risk
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.57 9	0.3 00	25.161	0.3	0	0.3	Flood Risk
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.57 4	0.3 00	24.834	0.3	0	0.2	Flood Risk
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.56 1	0.3 00	26.546	0.3	0	0.2	Flood Risk
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.54 3	0.3 00	26.891	0.3	0	0.2	OK
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.54 5	0.3 00	28.111	0.3	0	0.2	OK
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.51 3	0.3 00	28.096	0.2	0	0.1	OK
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S14 - 5	S01- 5	27.85 0	27.53 2	0.3 00	29.898	0.3	0	0.2	OK
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S14 - 5	S01- 5	27.85 0	27.48 3	0.3 00	29.404	0.2	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.005 - 5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S04-5	EX	28.502	26.714	0.038	2.970	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S04-5	EX	28.502	26.714	0.038	2.996	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S04-5	EX	28.502	26.853	0.038	6.181	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S04-5	EX	28.502	26.852	0.038	6.215	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S04-5	EX	28.502	26.996	0.037	12.175	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S04-5	EX	28.502	26.995	0.037	12.234	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S04-5	EX	28.502	27.097	0.038	25.939	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S04-5	EX	28.502	27.097	0.038	26.027	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S04-5	EX	28.502	27.165	0.038	40.388	0.5	0.06	2.3	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S04-5	EX	28.502	27.165	0.038	40.444	0.5	0.06	2.3	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S04-5	EX	28.50 2	27.21 7	0.0 38	55.288	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S04-5	EX	28.50 2	27.21 7	0.0 38	55.297	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S04-5	EX	28.50 2	27.29 7	0.0 38	85.933	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S04-5	EX	28.50 2	27.29 8	0.0 38	85.813	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S04-5	EX	28.50 2	27.35 7	0.0 38	117.25 3	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S04-5	EX	28.50 2	27.35 8	0.0 38	116.99 7	0.5	0.06	2.3	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S04-5	EX	28.50 2	27.40 3	0.0 38	149.08 9	0.5	0.06	2.4	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S04-5	EX	28.50 2	27.40 5	0.0 38	148.67 3	0.5	0.06	2.4	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S04-5	EX	28.50 2	27.44 1	0.0 39	181.13 3	0.5	0.06	2.4	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S04-5	EX	28.50 2	27.44 4	0.0 39	180.52 6	0.5	0.06	2.4	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S04-5	EX	28.50 2	27.49 8	0.0 39	245.64 8	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S04-5	EX	28.50 2	27.50 2	0.0 39	244.73 9	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S04-5	EX	28.50 2	27.56 7	0.0 39	374.00 3	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S04-5	EX	28.50 2	27.57 3	0.0 39	372.48 1	0.5	0.07	2.5	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S04-5	EX	28.50 2	27.60 4	0.0 40	560.11 1	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S04-5	EX	28.50 2	27.61 7	0.0 40	558.04 5	0.5	0.07	2.6	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S04-5	EX	28.50 2	27.60 6	0.0 40	735.70 7	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S04-5	EX	28.50 2	27.62 3	0.0 40	733.33 5	0.5	0.07	2.6	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S04-5	EX	28.50 2	27.59 4	0.0 40	1073.7 07	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S04-5	EX	28.50 2	27.59 9	0.0 40	1071.4 11	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S04-5	EX	28.50 2	27.57 8	0.0 40	1414.6 10	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S04-5	EX	28.50 2	27.57 3	0.0 39	1413.5 76	0.5	0.07	2.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S04-5	EX	28.50 2	27.56 0	0.0 39	1562.9 43	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S04-5	EX	28.50 2	27.54 3	0.0 39	1564.5 51	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S04-5	EX	28.50 2	27.54 5	0.0 39	1656.1 86	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S04-5	EX	28.50 2	27.51 3	0.0 39	1656.8 06	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S04-5	EX	28.50 2	27.53 1	0.0 39	1741.7 76	0.5	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S04-5	EX	28.50 2	27.48 3	0.0 39	1740.1 62	0.5	0.06	2.4	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S06 - 5	Tank	28.888	28.084	0.300	71.518	2.0	1.16	143.8	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S06 - 5	Tank	28.888	28.023	0.300	71.507	1.8	1.04	129.9	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.886	0.237	94.772	1.8	0.88	109.4	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.871	0.224	94.766	1.8	0.82	102.7	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.857	0.212	119.440	1.8	0.77	95.6	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.823	0.182	119.434	1.7	0.62	76.9	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.803	0.164	137.951	1.7	0.53	65.5	OK
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.770	0.134	137.950	1.5	0.38	47.1	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S06 - 5	Tank	28.888	27.777	0.140	150.850	1.6	0.41	50.5	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S06 - 5	Tank	28.888	27.747	0.113	150.833	1.4	0.28	34.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.76 0	0.1 25	161.10 5	1.5	0.34	41. 7	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.73 4	0.1 00	161.14 1	1.4	0.23	28. 1	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.74 0	0.1 07	177.64 7	1.4	0.25	31. 4	OK
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.71 7	0.0 85	177.64 1	1.3	0.17	20. 7	OK
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.72 9	0.0 96	190.82 9	1.3	0.21	25. 9	OK
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.70 8	0.0 76	190.84 7	1.2	0.13	16. 7	OK
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.72 0	0.0 88	201.95 3	1.3	0.18	22. 0	OK
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.70 1	0.0 70	202.02 5	1.1	0.11	14. 2	OK
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.71 4	0.0 82	211.79 9	1.2	0.15	19. 2	OK
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.69 6	0.0 65	211.76 3	1.1	0.1	12. 4	OK
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.70 5	0.0 73	228.32 4	1.2	0.12	15. 5	OK
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 9	0.0 59	228.36 5	1.0	0.08	10. 0	OK
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.69 4	0.0 63	254.24 2	1.1	0.09	11. 5	OK
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.68 0	0.0 60	254.07 9	0.9	0.06	7.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.68 4	0.0 75	282.41 7	1.0	0.07	8.5	OK
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.67 3	0.0 81	282.41 0	0.9	0.04	5.5	OK
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 9	0.0 76	304.07 6	0.9	0.06	6.9	OK
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 9	0.0 84	304.08 3	0.8	0.04	4.4	OK
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.67 2	0.0 70	337.83 8	0.9	0.04	5.1	OK
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 3	0.0 72	338.04 9	0.7	0.03	3.3	OK
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 7	0.0 62	365.82 9	0.8	0.03	4.2	OK
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.66 0	0.0 59	365.33 4	0.7	0.02	2.7	OK
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 4	0.0 53	388.95 4	0.8	0.03	3.5	OK
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 8	0.0 44	389.95 2	0.7	0.02	2.3	OK
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 2	0.0 45	411.53 9	0.7	0.03	3.1	OK
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 6	0.0 29	411.33 6	0.6	0.02	2.0	OK
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S06 - 5	Tank	28.88 8	27.66 1	0.0 38	432.79 8	0.7	0.02	2.8	OK
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S06 - 5	Tank	28.88 8	27.65 5	0.0 25	431.71 1	0.6	0.01	1.8	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-5.002-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S08-5	S07-5	28.888	28.328	0.256	2.839	0.1	0.05	6.2	OK
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S08-5	S07-5	28.888	28.327	0.203	2.828	0.1	0.05	5.8	OK
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S08-5	S07-5	28.888	28.321	0.123	3.750	0.2	0.03	4.3	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S08-5	S07-5	28.888	28.320	0.117	3.750	0.2	0.03	4.1	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S08-5	S07-5	28.888	28.319	0.110	4.728	0.2	0.03	3.8	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S08-5	S07-5	28.888	28.316	0.095	4.728	0.2	0.02	3.0	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S08-5	S07-5	28.888	28.313	0.086	5.460	0.2	0.02	2.6	OK
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S08-5	S07-5	28.888	28.309	0.071	5.460	0.1	0.01	1.9	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S08-5	S07-5	28.888	28.310	0.074	5.964	0.1	0.02	2.0	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S08-5	S07-5	28.888	28.306	0.060	5.964	0.1	0.01	1.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 8	0.0 67	6.372	0.1	0.01	1.6	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 4	0.0 54	6.384	0.1	0.01	1.1	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 5	0.0 57	7.026	0.1	0.01	1.2	OK
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 2	0.0 46	7.032	0.1	0.01	0.8	OK
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 3	0.0 52	7.548	0.1	0.01	1.0	OK
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.30 0	0.0 42	7.548	0.1	0.01	0.7	OK
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 2	0.0 48	7.986	0.1	0.01	0.9	OK
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 38	7.992	0.1	0	0.6	OK
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.30 1	0.0 45	8.376	0.1	0.01	0.8	OK
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 36	8.394	0.1	0	0.5	OK
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 9	0.0 40	9.006	0.1	0	0.6	OK
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 7	0.0 32	9.018	0.1	0	0.4	OK
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 8	0.0 35	10.068	0.1	0	0.5	OK
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 28	9.996	0.1	0	0.3	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 6	0.0 30	11.202	0.1	0	0.3	OK
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 24	11.220	0.1	0	0.2	OK
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 5	0.0 27	12.024	0.1	0	0.3	OK
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 22	12.030	0.1	0	0.2	OK
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 4	0.0 24	13.470	0.1	0	0.2	OK
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 19	13.314	0.1	0	0.1	OK
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 3	0.0 21	14.580	0.1	0	0.2	OK
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 17	14.586	0.1	0	0.1	OK
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 20	15.204	0.1	0	0.1	OK
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 16	15.732	0.1	0	0.1	OK
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 2	0.0 18	15.978	0.1	0	0.1	OK
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 15	16.074	0.1	0	0.1	OK
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S08-5	S07-5	28.88 8	28.29 1	0.0 18	16.698	0.1	0	0.1	OK
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S08-5	S07-5	28.88 8	28.29 0	0.0 14	16.698	0.1	0	0.1	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.001-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S10-5	S09-5	28.560	27.031	0.300	30.938	0.8	0.93	58.3	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S10-5	S09-5	28.560	26.997	0.300	30.946	0.7	0.83	52.5	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S10-5	S09-5	28.560	26.924	0.300	39.364	0.7	0.77	48.4	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S10-5	S09-5	28.560	26.901	0.300	39.377	0.6	0.72	45.5	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S10-5	S09-5	28.560	26.995	0.300	48.409	0.6	0.68	42.5	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S10-5	S09-5	28.560	26.995	0.300	48.398	0.6	0.54	34.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S10-5	S09-5	28.560	27.096	0.300	55.878	0.6	0.46	29.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S10-5	S09-5	28.560	27.097	0.300	55.882	0.5	0.32	20.2	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S10-5	S09-5	28.560	27.164	0.300	61.247	0.5	0.33	20.9	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S10-5	S09-5	28.560	27.165	0.300	61.255	0.5	0.22	14.1	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.21 7	0.3 00	65.638	0.5	0.26	16. 4	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.21 7	0.3 00	65.633	0.5	0.18	11. 2	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.29 7	0.3 00	72.742	0.4	0.19	12. 0	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.29 8	0.3 00	72.740	0.4	0.13	8.0	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.35 7	0.3 00	78.485	0.4	0.16	9.8	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.35 8	0.3 00	78.495	0.4	0.1	6.3	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.40 3	0.3 00	83.372	0.4	0.12	7.8	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.40 5	0.3 00	83.404	0.4	0.08	5.3	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.44 1	0.3 00	87.716	0.4	0.11	6.8	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.44 4	0.3 00	87.688	0.4	0.07	4.6	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.49 8	0.3 00	95.089	0.4	0.09	5.7	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.50 2	0.3 00	95.094	0.4	0.06	3.8	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.56 7	0.3 00	106.72 6	0.3	0.07	4.6	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.57 3	0.3 00	106.67 5	0.3	0.05	2.9	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.60 4	0.3 00	119.75 4	0.3	0.06	3.5	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.61 7	0.3 00	119.69 5	0.3	0.04	2.2	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.60 6	0.3 00	130.33 5	0.3	0.04	2.8	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.62 3	0.3 00	130.36 9	0.3	0.03	1.8	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.59 4	0.3 00	149.56 3	0.3	0.03	2.1	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.59 9	0.3 00	149.71 7	0.3	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.57 8	0.3 00	162.78 9	0.3	0.03	1.7	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.57 3	0.3 00	162.72 9	0.2	0.02	1.1	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.56 0	0.3 00	173.25 3	0.2	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.54 3	0.3 00	173.42 6	0.2	0.01	0.9	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.54 5	0.3 00	183.62 1	0.2	0.02	1.3	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.51 3	0.3 00	183.33 8	0.2	0.01	0.8	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S10-5	S09-5	28.56 0	27.53 1	0.3 00	192.70 4	0.2	0.02	1.2	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S10-5	S09-5	28.56 0	27.48 3	0.3 00	192.80 0	0.2	0.01	0.7	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S09-5	Tank	28.846	26.968	0.300	61.856	1.8	1.75	123.9	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S09-5	Tank	28.846	26.943	0.300	61.840	1.6	1.62	114.2	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S09-5	Tank	28.846	26.885	0.300	79.741	1.4	1.37	96.8	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S09-5	Tank	28.846	26.866	0.300	79.765	1.4	1.29	91.0	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S09-5	Tank	28.846	26.996	0.300	99.165	1.3	1.2	84.8	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S09-5	Tank	28.846	26.996	0.300	99.164	1.2	0.97	68.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S09-5	Tank	28.846	27.097	0.300	114.453	1.1	0.82	57.9	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S09-5	Tank	28.846	27.097	0.300	114.461	1.0	0.58	40.7	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S09-5	Tank	28.846	27.165	0.300	125.302	1.0	0.6	42.6	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S09-5	Tank	28.846	27.165	0.300	125.337	0.9	0.41	28.6	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S09-5	Tank	28.846	27.217	0.300	134.153	0.9	0.48	33.7	Sur charged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S09-5	Tank	28.846	27.218	0.300	134.158	0.8	0.32	22.7	Sur charged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S09-5	Tank	28.846	27.298	0.300	148.449	0.8	0.35	24.7	Sur charged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S09-5	Tank	28.846	27.298	0.300	148.429	0.8	0.23	16.4	Sur charged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S09-5	Tank	28.846	27.357	0.300	159.963	0.7	0.29	20.3	Sur charged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S09-5	Tank	28.846	27.358	0.300	159.984	0.7	0.19	13.1	Sur charged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S09-5	Tank	28.846	27.403	0.300	169.751	0.7	0.24	17.1	Sur charged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S09-5	Tank	28.846	27.406	0.300	169.799	0.7	0.15	11.0	Sur charged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S09-5	Tank	28.846	27.442	0.300	178.415	0.7	0.21	15.0	Sur charged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S09-5	Tank	28.846	27.444	0.300	178.373	0.6	0.14	9.7	Sur charged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S09-5	Tank	28.846	27.499	0.300	193.104	0.6	0.17	12.3	Sur charged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S09-5	Tank	28.846	27.503	0.300	193.129	0.6	0.11	8.0	Sur charged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S09-5	Tank	28.846	27.567	0.300	216.319	0.6	0.13	9.4	Sur charged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S09-5	Tank	28.846	27.574	0.300	216.205	0.5	0.09	6.1	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026						
	Designed AMG	Checked by:	Approved				
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG						

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.60 4	0.3 00	242.11 3	0.5	0.1	7.1	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.61 7	0.3 00	242.06 8	0.5	0.06	4.5	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.60 7	0.3 00	262.87 5	0.5	0.08	5.7	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.62 4	0.3 00	262.89 6	0.5	0.05	3.7	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.59 4	0.3 00	298.47 9	0.5	0.06	4.2	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.60 0	0.3 00	298.70 1	0.4	0.04	2.7	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.57 8	0.3 00	324.59 3	0.4	0.05	3.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.57 3	0.3 00	324.62 2	0.4	0.03	2.2	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.56 1	0.3 00	345.78 4	0.4	0.04	2.9	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.54 3	0.3 00	346.04 2	0.4	0.03	1.9	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.54 5	0.3 00	365.67 0	0.4	0.04	2.6	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.51 3	0.3 00	366.10 0	0.4	0.02	1.7	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S09-5	Tank	28.84 6	27.53 2	0.3 00	384.17 9	0.4	0.03	2.3	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S09-5	Tank	28.84 6	27.48 3	0.3 00	384.38 8	0.4	0.02	1.5	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.0003--5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S12-5	S11-5	28.755	27.528	0.225	31.652	1.7	1.15	66.8	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S12-5	S11-5	28.755	27.426	0.225	31.675	1.6	1.07	62.1	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S12-5	S11-5	28.755	27.196	0.185	42.141	1.5	0.84	48.7	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S12-5	S11-5	28.755	27.180	0.160	42.164	1.5	0.79	45.7	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S12-5	S11-5	28.755	27.171	0.150	53.140	1.5	0.73	42.6	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S12-5	S11-5	28.755	27.148	0.130	53.120	1.4	0.59	34.2	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S12-5	S11-5	28.755	27.134	0.174	61.193	1.4	0.5	29.1	OK
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S12-5	S11-5	28.755	27.112	0.174	61.198	1.3	0.36	21.0	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S12-5	S11-5	28.755	27.164	0.225	66.784	1.3	0.39	22.5	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S12-5	S11-5	28.755	27.165	0.225	66.801	1.2	0.27	15.5	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.21 7	0.2 25	71.302	1.3	0.32	18. 6	OK
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.21 8	0.2 25	71.309	1.1	0.21	12. 5	OK
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.29 7	0.2 25	78.560	1.2	0.24	14. 0	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.29 8	0.2 25	78.573	1.0	0.16	9.2	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.35 7	0.2 25	84.393	1.1	0.2	11. 5	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.35 8	0.2 25	84.421	1.0	0.13	7.5	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.40 3	0.2 25	89.335	1.1	0.17	9.8	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.40 6	0.2 25	89.387	0.9	0.11	6.3	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.44 1	0.2 25	93.712	1.0	0.15	8.6	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.44 4	0.2 25	93.703	0.9	0.1	5.5	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.49 9	0.2 25	101.10 3	1.0	0.12	6.9	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.50 3	0.2 25	101.12 6	0.8	0.08	4.5	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.56 7	0.2 25	112.66 3	0.9	0.09	5.1	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.57 4	0.2 25	112.62 6	0.8	0.06	3.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.60 4	0.2 25	125.40 5	0.8	0.07	3.8	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.61 7	0.2 25	125.36 2	0.7	0.04	2.5	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.60 7	0.2 25	135.37 3	0.7	0.05	3.1	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.62 4	0.2 25	135.43 6	0.7	0.03	2.0	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.59 4	0.2 25	150.38 8	0.7	0.04	2.3	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.60 0	0.2 25	150.58 9	0.6	0.03	1.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.57 9	0.2 25	162.77 3	0.6	0.03	1.9	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.57 4	0.2 25	162.71 7	0.6	0.02	1.2	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.56 1	0.2 25	173.23 9	0.6	0.03	1.6	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.54 3	0.2 25	173.41 5	0.5	0.02	1.0	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.54 5	0.2 25	183.60 8	0.6	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.51 3	0.2 25	183.32 8	0.5	0.02	0.9	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S12-5	S11-5	28.75 5	27.53 2	0.2 25	192.69 3	0.6	0.02	1.3	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S12-5	S11-5	28.75 5	27.48 3	0.2 25	192.79 1	0.5	0.01	0.8	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-4.000-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S13-5	S09-5	28.754	27.463	0.225	31.330	1.7	1.17	67.8	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S13-5	S09-5	28.754	27.380	0.225	31.357	1.6	1.1	64.1	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S13-5	S09-5	28.754	27.112	0.210	41.723	1.3	0.83	48.4	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S13-5	S09-5	28.754	27.103	0.196	41.753	1.3	0.78	45.5	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S13-5	S09-5	28.754	27.095	0.208	52.562	1.3	0.73	42.3	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S13-5	S09-5	28.754	27.073	0.208	52.565	1.3	0.58	34.0	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S13-5	S09-5	28.754	27.097	0.225	60.513	1.3	0.5	29.0	OK
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S13-5	S09-5	28.754	27.097	0.225	60.529	1.2	0.36	20.9	OK
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S13-5	S09-5	28.754	27.164	0.225	66.072	1.2	0.38	22.4	OK
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S13-5	S09-5	28.754	27.165	0.225	66.101	1.2	0.26	15.4	OK

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.21 7	0.2 25	70.570	1.2	0.32	18.5	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.21 8	0.2 25	70.606	1.1	0.21	12.4	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.29 7	0.2 25	77.844	1.1	0.24	13.9	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.29 8	0.2 25	77.857	1.0	0.16	9.2	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.35 7	0.2 25	83.673	1.0	0.2	11.5	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.35 8	0.2 25	83.708	1.0	0.13	7.4	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.40 3	0.2 25	88.609	1.0	0.17	9.7	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.40 6	0.2 25	88.647	0.9	0.11	6.3	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.44 1	0.2 25	92.953	0.9	0.15	8.5	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.44 4	0.2 25	92.956	0.9	0.09	5.5	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.49 8	0.2 25	100.28 4	0.9	0.12	6.9	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.50 3	0.2 25	100.31 9	0.8	0.08	4.4	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.56 7	0.2 25	111.83 2	0.8	0.09	5.1	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.57 4	0.2 25	111.78 0	0.7	0.06	3.3	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.60 4	0.2 25	124.47 5	0.7	0.06	3.8	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.61 7	0.2 25	124.50 0	0.7	0.04	2.4	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.60 7	0.2 25	134.48 9	0.7	0.05	3.1	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.62 4	0.2 25	134.48 6	0.6	0.03	2.0	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.59 4	0.2 25	149.60 4	0.6	0.04	2.3	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.60 0	0.2 25	149.70 4	0.6	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.57 9	0.2 25	161.80 4	0.6	0.03	1.8	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.57 3	0.2 25	161.89 8	0.5	0.02	1.2	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.56 1	0.2 25	172.53 4	0.6	0.03	1.6	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.54 3	0.2 25	172.62 1	0.5	0.02	1.0	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.54 5	0.2 25	182.05 2	0.5	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.51 3	0.2 25	182.76 8	0.5	0.02	0.9	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S13-5	S09-5	28.75 4	27.53 2	0.2 25	191.47 8	0.5	0.02	1.2	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S13-5	S09-5	28.75 4	27.48 3	0.2 25	191.59 5	0.5	0.01	0.8	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-1.004-5: Rank By: Max. Flow**

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	Tank	S04-5	28.670	26.714	0.225	3.613	0.4	0.08	3.2	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	Tank	S04-5	28.670	26.714	0.225	3.639	0.4	0.08	3.1	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	Tank	S04-5	28.670	26.853	0.225	6.980	0.3	0.07	3.0	Surcharged
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	Tank	S04-5	28.670	26.853	0.225	7.014	0.3	0.07	2.9	Surcharged
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	Tank	S04-5	28.670	26.996	0.225	13.133	0.1	0.07	2.9	Surcharged
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	Tank	S04-5	28.670	26.996	0.225	13.192	0.1	0.07	2.8	Surcharged
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	Tank	S04-5	28.670	27.097	0.225	27.003	0.2	0.07	2.7	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	Tank	S04-5	28.670	27.097	0.225	27.090	0.3	0.06	2.6	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	Tank	S04-5	28.670	27.165	0.225	41.517	0.2	0.06	2.6	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	Tank	S04-5	28.670	27.165	0.225	41.573	0.2	0.06	2.5	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	Tank	S04-5	28.670	27.218	0.225	56.463	0.2	0.06	2.5	Sur charged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	Tank	S04-5	28.670	27.218	0.225	56.473	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	Tank	S04-5	28.670	27.298	0.225	87.172	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	Tank	S04-5	28.670	27.298	0.225	87.053	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	Tank	S04-5	28.670	27.357	0.225	118.532	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	Tank	S04-5	28.670	27.358	0.225	118.276	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	Tank	S04-5	28.670	27.404	0.225	150.391	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	Tank	S04-5	28.670	27.406	0.225	149.976	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	Tank	S04-5	28.670	27.442	0.225	182.448	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	Tank	S04-5	28.670	27.444	0.225	181.843	0.2	0.06	2.4	Sur charged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	Tank	S04-5	28.670	27.499	0.225	246.967	0.2	0.06	2.5	Sur charged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	Tank	S04-5	28.670	27.503	0.225	246.060	0.2	0.06	2.5	Sur charged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	Tank	S04-5	28.670	27.567	0.225	375.279	0.2	0.06	2.5	Sur charged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	Tank	S04-5	28.670	27.574	0.225	373.759	0.2	0.06	2.5	Sur charged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by: Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.60 4	0.2 25	561.25 9	0.2	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.61 7	0.2 25	559.19 5	0.2	0.06	2.6	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.60 7	0.2 25	736.70 0	0.2	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.62 4	0.2 25	734.33 2	0.1	0.06	2.6	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.59 4	0.2 25	1074.3 53	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.60 0	0.2 25	1072.0 63	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.57 8	0.2 25	1414.8 00	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.57 3	0.2 25	1413.7 67	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.56 1	0.2 25	1562.9 82	0.2	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.54 3	0.2 25	1564.5 89	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.54 5	0.2 25	1656.1 93	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.51 3	0.2 25	1656.8 14	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	Tank	S04-5	28.67 0	27.53 2	0.2 25	1741.7 81	0.1	0.06	2.5	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	Tank	S04-5	28.67 0	27.48 3	0.2 25	1740.1 67	0.1	0.06	2.4	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 200 years: Increase Rainfall (%): +45: Summary Results for Sw
-3.002-5: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
FEH: 200 years: +45 %: 15 mins: Summer	Pipe	S11-5	S10-5	28.558	27.218	0.300	31.850	0.9	1	61.5	Surcharged
FEH: 200 years: +45 %: 15 mins: Winter	Pipe	S11-5	S10-5	28.558	27.160	0.300	31.862	0.8	0.92	56.6	Surcharged
FEH: 200 years: +45 %: 30 mins: Summer	Pipe	S11-5	S10-5	28.558	27.018	0.289	41.655	0.8	0.79	48.5	OK
FEH: 200 years: +45 %: 30 mins: Winter	Pipe	S11-5	S10-5	28.558	26.985	0.261	41.669	0.8	0.74	45.6	OK
FEH: 200 years: +45 %: 60 mins: Summer	Pipe	S11-5	S10-5	28.558	26.995	0.300	51.455	0.8	0.69	42.5	OK
FEH: 200 years: +45 %: 60 mins: Winter	Pipe	S11-5	S10-5	28.558	26.995	0.300	51.444	0.7	0.56	34.2	OK
FEH: 200 years: +45 %: 120 mins: Summer	Pipe	S11-5	S10-5	28.558	27.097	0.300	59.091	0.7	0.48	29.2	Surcharged
FEH: 200 years: +45 %: 120 mins: Winter	Pipe	S11-5	S10-5	28.558	27.097	0.300	59.092	0.7	0.34	21.0	Surcharged
FEH: 200 years: +45 %: 180 mins: Summer	Pipe	S11-5	S10-5	28.558	27.164	0.300	64.538	0.7	0.37	22.5	Surcharged
FEH: 200 years: +45 %: 180 mins: Winter	Pipe	S11-5	S10-5	28.558	27.165	0.300	64.543	0.6	0.25	15.5	Surcharged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 240 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.21 7	0.3 00	68.979	0.7	0.3	18. 6	Sur char ged
FEH: 200 years: +45 %: 240 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.21 8	0.3 00	68.970	0.6	0.2	12. 5	Sur char ged
FEH: 200 years: +45 %: 360 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.29 7	0.3 00	76.148	0.6	0.23	13. 8	Sur char ged
FEH: 200 years: +45 %: 360 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.29 8	0.3 00	76.139	0.6	0.15	9.2	Sur char ged
FEH: 200 years: +45 %: 480 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.35 7	0.3 00	81.927	0.6	0.19	11. 4	Sur char ged
FEH: 200 years: +45 %: 480 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.35 8	0.3 00	81.931	0.5	0.12	7.3	Sur char ged
FEH: 200 years: +45 %: 600 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.40 3	0.3 00	86.835	0.5	0.15	9.0	Sur char ged
FEH: 200 years: +45 %: 600 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.40 6	0.3 00	86.861	0.5	0.1	6.1	Sur char ged
FEH: 200 years: +45 %: 720 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.44 2	0.3 00	91.190	0.5	0.13	7.7	Sur char ged
FEH: 200 years: +45 %: 720 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.44 4	0.3 00	91.155	0.5	0.09	5.3	Sur char ged
FEH: 200 years: +45 %: 960 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.49 9	0.3 00	98.561	0.5	0.1	6.1	Sur char ged
FEH: 200 years: +45 %: 960 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.50 3	0.3 00	98.561	0.5	0.07	4.2	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.56 7	0.3 00	110.14 6	0.4	0.08	4.7	Sur char ged
FEH: 200 years: +45 %: 1440 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.57 4	0.3 00	110.09 0	0.4	0.05	3.0	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026					
	Designed AMG	Checked by:	Approved			
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG					

FEH: 200 years: +45 %: 2160 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.60 4	0.3 00	123.03 1	0.4	0.06	3.6	Sur char ged
FEH: 200 years: +45 %: 2160 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.61 7	0.3 00	122.96 9	0.4	0.04	2.3	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.60 7	0.3 00	133.40 1	0.4	0.05	2.9	Sur char ged
FEH: 200 years: +45 %: 2880 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.62 4	0.3 00	133.43 4	0.4	0.03	1.9	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.59 4	0.3 00	150.45 7	0.3	0.03	2.1	Sur char ged
FEH: 200 years: +45 %: 4320 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.60 0	0.3 00	150.64 7	0.3	0.02	1.4	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.57 9	0.3 00	162.84 1	0.3	0.03	1.7	Sur char ged
FEH: 200 years: +45 %: 5760 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.57 3	0.3 00	162.77 4	0.3	0.02	1.1	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.56 1	0.3 00	173.30 2	0.3	0.02	1.5	Sur char ged
FEH: 200 years: +45 %: 7200 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.54 3	0.3 00	173.46 9	0.3	0.02	1.0	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.54 5	0.3 00	183.66 8	0.3	0.02	1.3	Sur char ged
FEH: 200 years: +45 %: 8640 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.51 3	0.3 00	183.37 9	0.3	0.01	0.8	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Summer	Pipe	S11-5	S10-5	28.55 8	27.53 2	0.3 00	192.75 0	0.3	0.02	1.2	Sur char ged
FEH: 200 years: +45 %: 10080 mins: Winter	Pipe	S11-5	S10-5	28.55 8	27.48 3	0.3 00	192.83 9	0.3	0.01	0.8	Sur char ged

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.003-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-5.001-5 : Rank By: Max. Flow

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.000-5 : Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.001-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.002-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
2.000-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.005 - 5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
5.000-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-5.002-5: Rank By: Max. Flow

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-3.001-5: Rank By: Max. Flow

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
3.000-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026		
	Designed AMG	Checked by:	Approved
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-3.0003--5: Rank By: Max. Flow

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
4.000-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-
1.004-5: Rank By: Max. Flow**

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Connections Summary Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



5mm of Rainfall: Increase Rainfall (%): +0: Summary Results for Sw-3.002-5: Rank By: Max. Flow

Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



UNIT 5

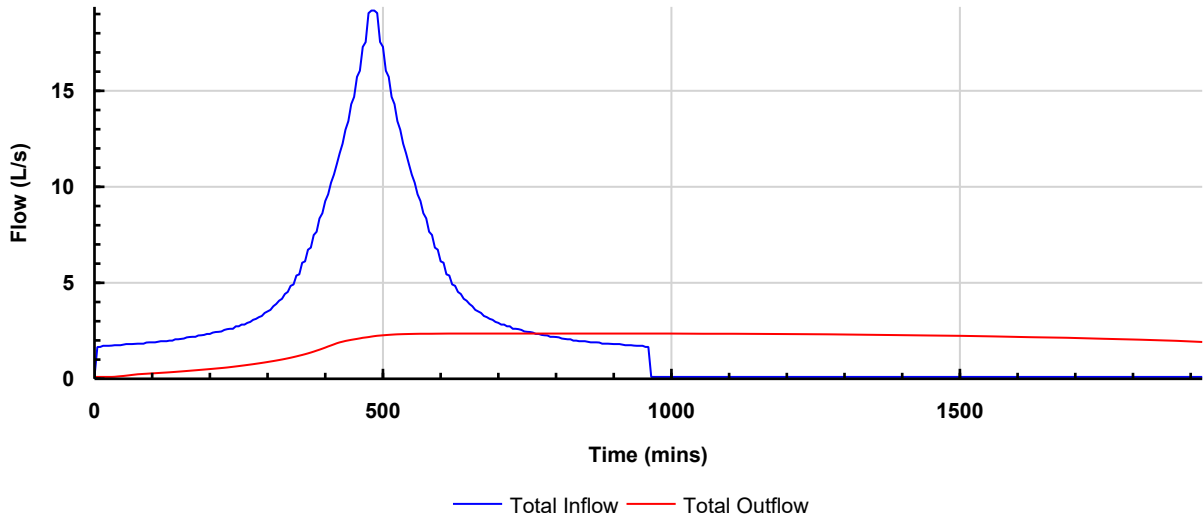
FEH: 2 years: Increase Rainfall (%): +0: 960 mins: Summer

Tables

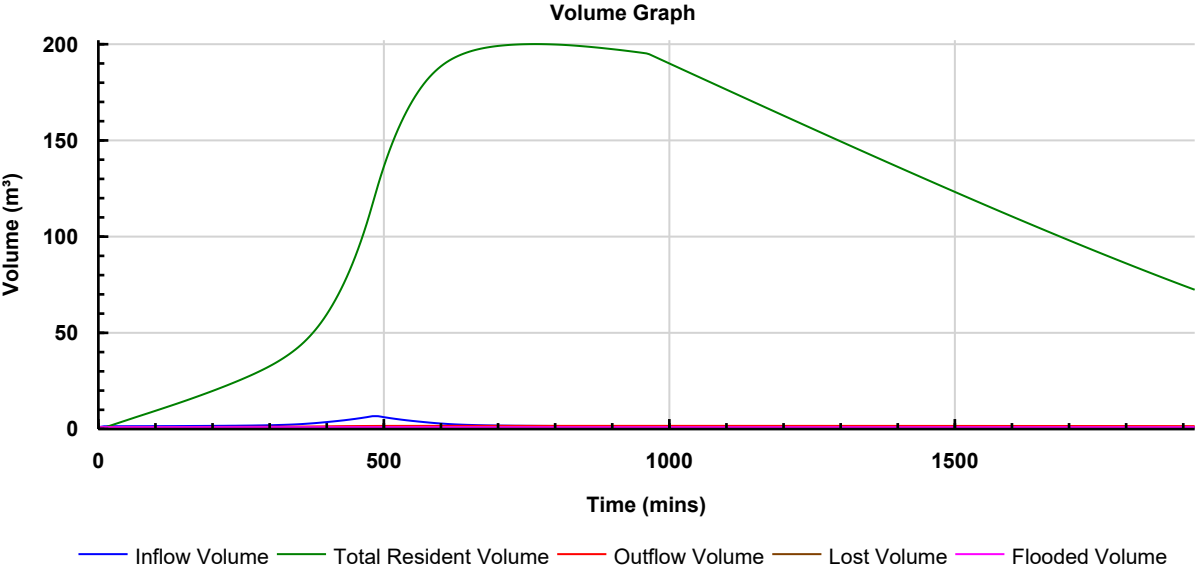
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			2.3	209.314
TOTAL	19.2	281.700	2.3	209.314

Graphs

Flow Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



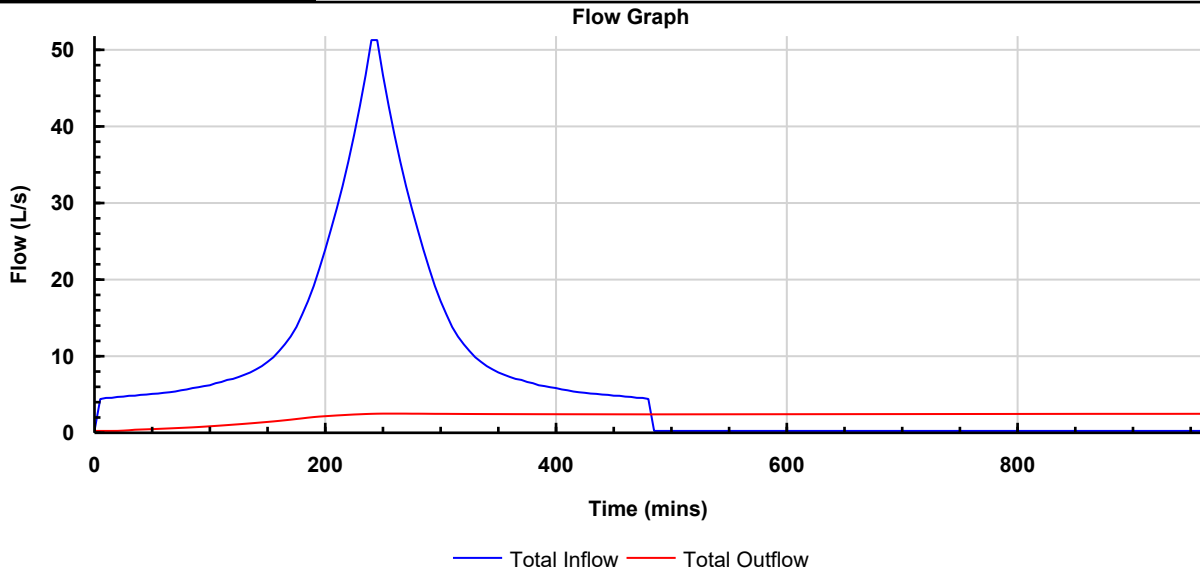
UNIT 5

FEH: 30 years: Increase Rainfall (%): +0: 480 mins: Summer

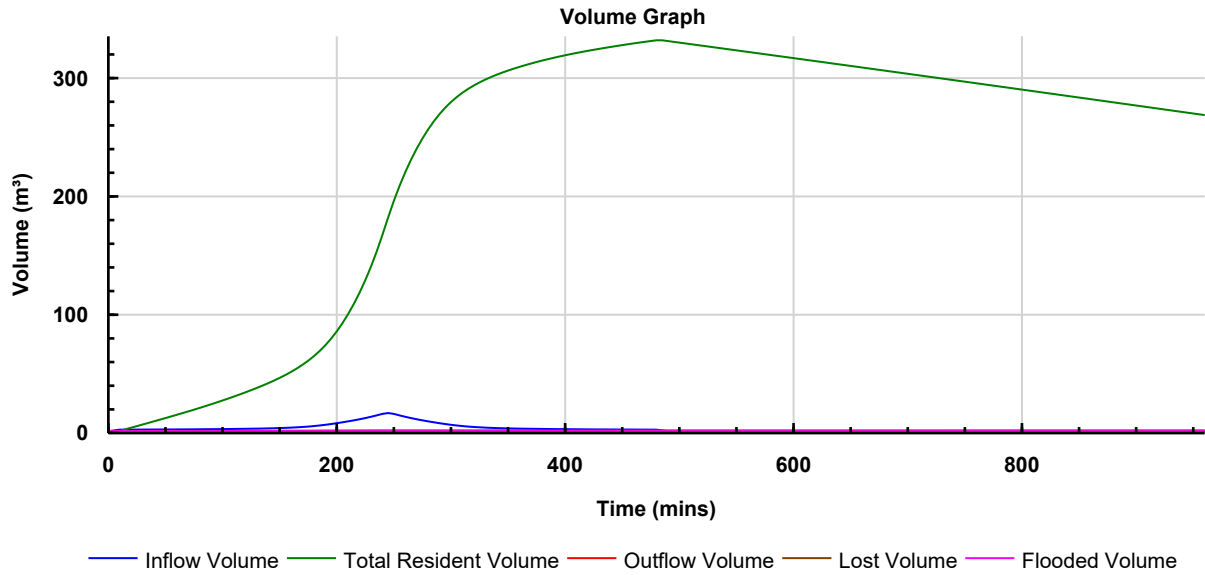
Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			2.3	109.418
TOTAL	51.3	377.994	2.3	109.418

Graphs



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



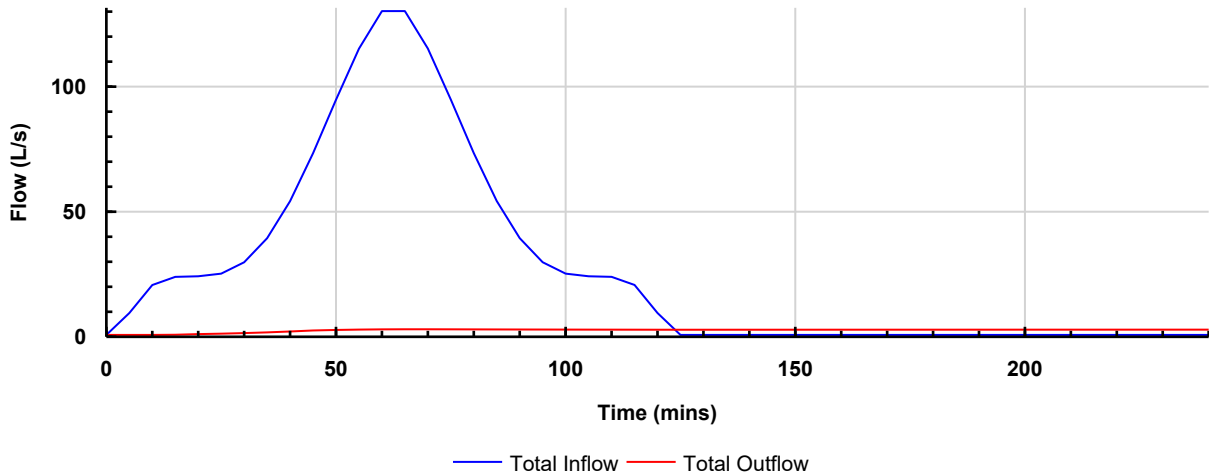
UNIT 5
FEH: 30 years: Increase Rainfall (%): +40: 120 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			2.3	26.349
TOTAL	130.2	381.273	2.3	26.349

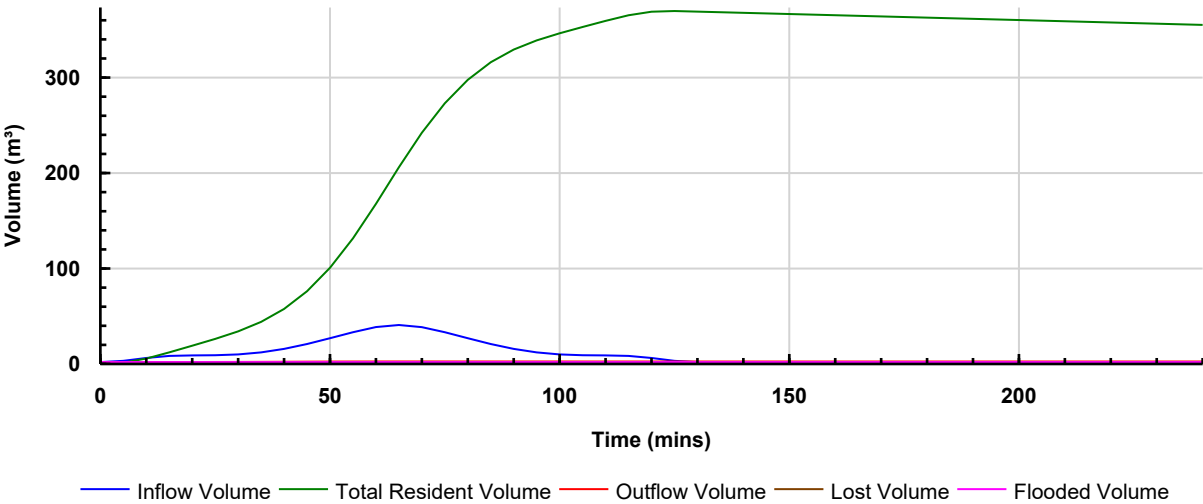
Graphs

Flow Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Volume Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



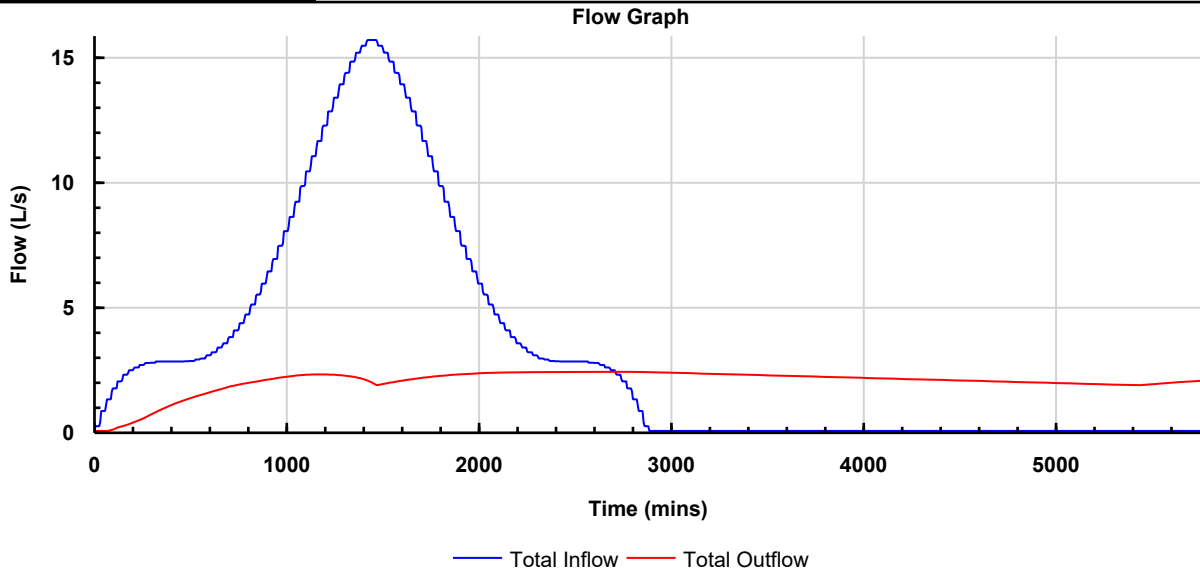
UNIT 5

FEH: 100 years: Increase Rainfall (%): +45: 2880 mins: Winter

Tables

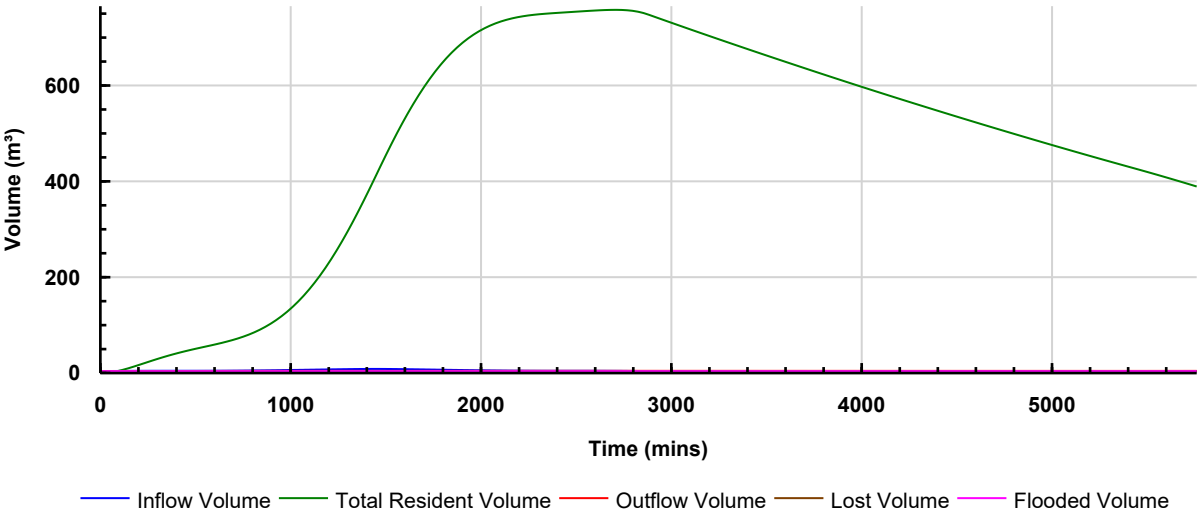
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			2.4	684.658
TOTAL	15.7	1073.604	2.4	684.658

Graphs



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Volume Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



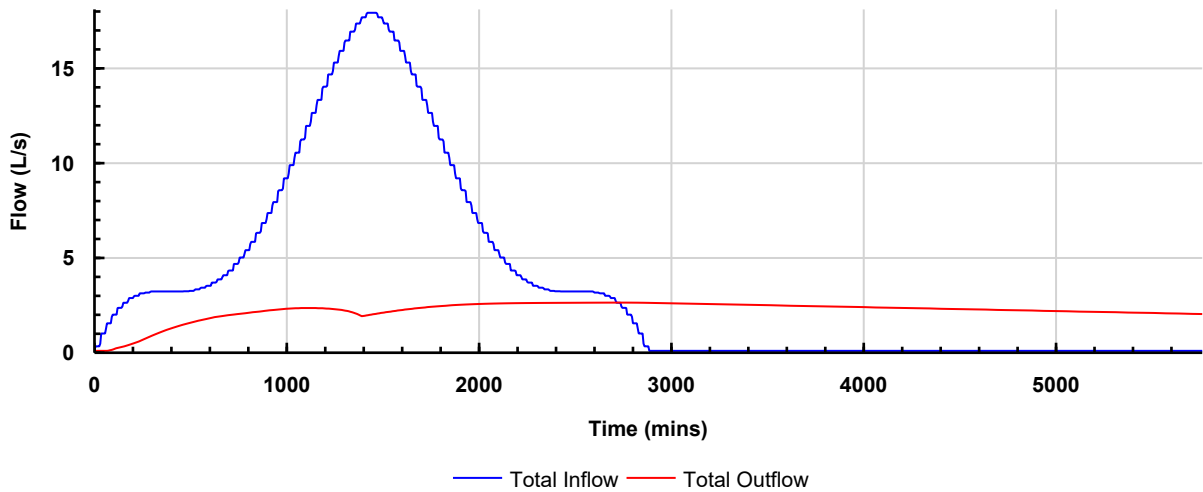
UNIT 5
FEH: 200 years: Increase Rainfall (%): +45: 2880 mins: Winter

Tables

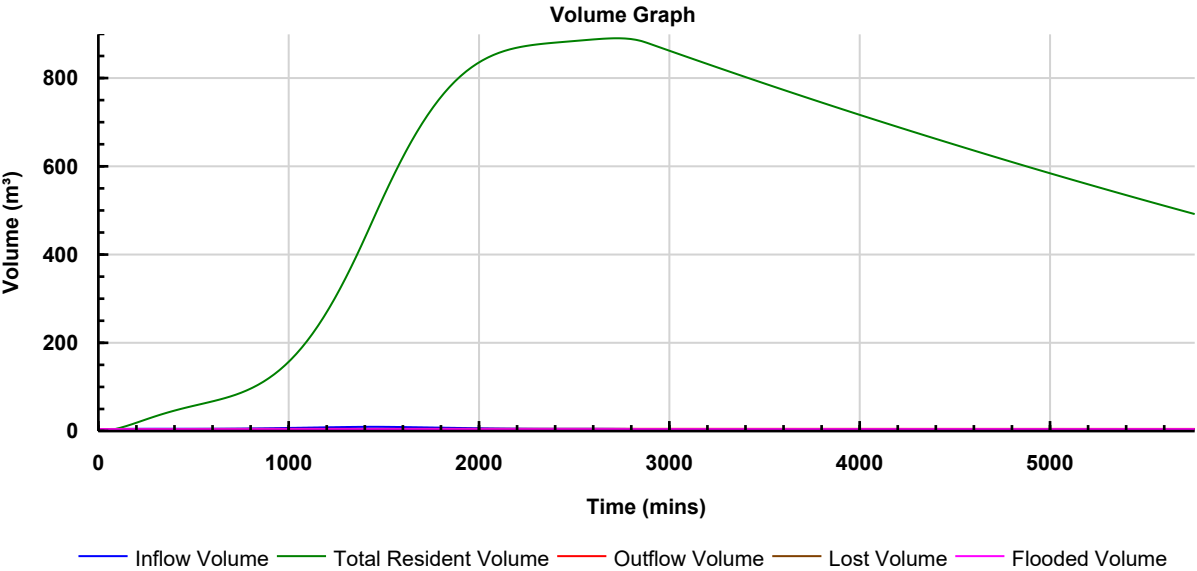
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			2.6	733.335
TOTAL	17.9	1224.996	2.6	733.335

Graphs

Flow Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



UNIT 5

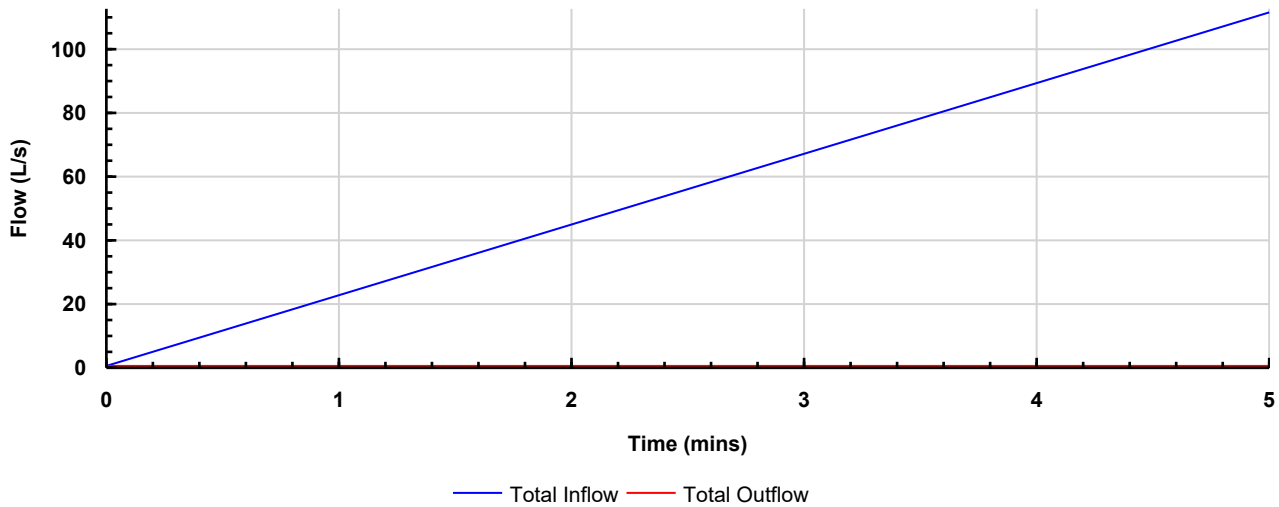
5mm of Rainfall: Increase Rainfall (%): +0: 5mm

Tables

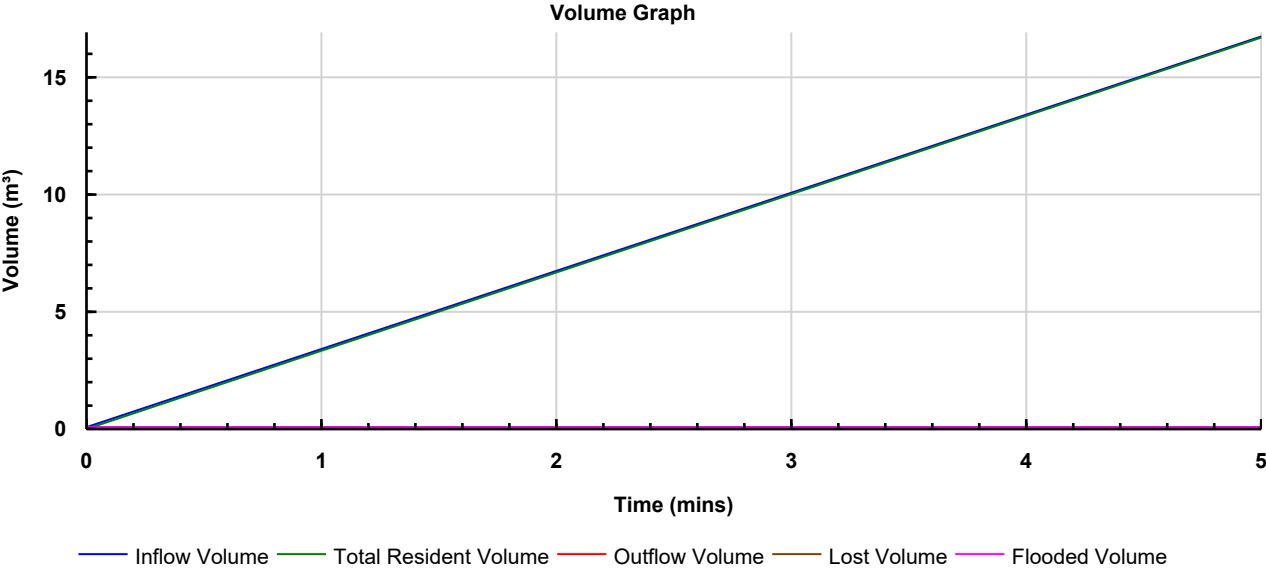
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
EX			0.0	0.000
TOTAL	111.5	16.740	0.0	0.000

Graphs

Flow Graph



Drainage Network Unit 5: Alchemy, Western Plot Network Space Developments	Date: 17/07/2026			
	Designed AMG	Checked by:	Approved	
Report Details: Type: Phase Management Storm Phase: UNIT 5	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



Appendix J

SUPPORTED INFORMATION

Table 2.1: Preliminary Conceptual Site Model Parcel 1

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Made Ground, and localised hydrocarbon impacted shallow perched water.	Metals, hydrocarbons, solvents and asbestos	Direct	contact/ingestion	✓	Future site users	Low to moderate	No significant sources of contamination identified. Post development risks minimised by buildings, hardstanding and manged landscaping. Residual risk in areas of soft landscaping, if soils are exposed or disturbed.
On site – historical: N/A				✗		N/A	No sources of volatile contaminants identified.
Soil			Airborne migration of soil or dust	✓	Future site users	Low	No significant sources of contamination identified.
				✓	Off-site users		Post development risks minimised by buildings, hardstanding and manged landscaping.
							Residual risk in areas of soft landscaping, if soils are exposed or disturbed
			Leaching of mobile contaminants	✓	Secondary Undifferentiated Aquifer	Low	Potential for soils leaching and verical and lateral migration of contaminant if present in shallow groundwater. However, migration will be reduced by the largely cohesive nature of the superficial deposits. Following developmnet the presence of hardstanding and building cover which reduce infiltration.
Groundwater			Direct contact/ingestion	✓	Future site users	Low	Very shallow groundwater unlikely to be present.
				✓	Off-site users		
			Inhalation of volatiles	✗	Future site users	N/A	No sources of volatile contaminants identified, however, localised potentially impacted perched groundwater was encountered during the previous site investigations.
				✗	Off-site users		

REPORT

Potential Source	Contaminants of Concern	Via Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
		Vertical and lateral migration in permeable strata	✓ ✓	Principal Aquifer Knowsley Brook	Low	There is limited potential for significant contamination and no shallow groundwater encountered as part of previous investigation. The presence of cohesive superficial deposits will limit vertical and lateral migration of any contaminant offering some protection to the deeper underlying principal aquifer.
Off-site – current: Industrial parks with vehicle servicing and a woodworking machinery factory Off site – historical: Dismantled tramway, paper works, engineering works, electrical substation, food factory, several tanks	Metals, hydrocarbons, solvent and Polychlorinated biphenyls (PCBs)	Direct contact/ingestion Inhalation of volatiles	✗ ✓	Future site users Future site users	Low Low	There is a potential for contaminants to migrate beneath the site from off-site sources in any shallow groundwater present in the Made Ground or granular soils within the superficial deposits. However, the largely cohesive nature of the superficial deposits will limit migration.
On and off-site – Made Ground	Carbon dioxide and methane	Inhalation of ground gas Explosive risks	✓ ✓ ✓ ✓	Future site users Off-site users Future site users Off-site users Future and off-site Structures	Low to moderate Low to moderate	No significant ground gas sources identified other than potential for localised Made ground.

Table 2.2: Preliminary Conceptual Site Model Parcel 2

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Made Ground, Potential cement bound asbestos sheeting was encountered in the east of the site during historical site investigation.	Metals, hydrocarbons, solvents and asbestos		Direct contact/ingestion	✓	Future site users	Low to moderate	No significant sources of contamination identified. Post development risks will be minimised by the presence of buildings, hardstanding and manged landscaping. Residual risk in areas of soft landscaping, if soils are exposed or disturbed.
				✗		N/A	No potentially significant sources of volatile contaminants identified.
				✓	Future site users	Low to moderate	Post development risks will be minimised by the presence of buildings, hardstanding and manged landscaping.
				✓	Off-site users		Residual risk in areas of soft landscaping, if soils are exposed or disturbed
On site – historical: N/A			Soil Inhalation of volatiles	✗			
			Airborne migration of soil or dust	✓	Future site users		
				✓	Off-site users		
			Leaching of mobile contaminants	✗	Secondary Undifferentiated Aquifer	Low	Potential for soils leaching and vertical and lateral migration of contaminant if present in shallow groundwater. However, migration will be reduced by the largely cohesive nature of the superficial deposits. Following development the presence of hardstanding and building cover which reduce infiltration.
			Direct contact/ingestion	✓	Future site users	Low	Very shallow groundwater unlikely to be present.
				✓	Off-site users		
		Groundwater	Inhalation of volatiles	✗	Future site users	N/A	Limited potential for significant volatile contamination in groundwater.
				✗	Off-site users		
			Vertical and lateral migration in permeable strata	✗	Principal Aquifer	Low	There is limited potential for significant contamination and no shallow groundwater encountered as part of previous investigation. The presence of cohesive superficial deposits will limited vertical and lateral migration of any contaminant offering some protection to the deeper underlying principal aquifer.
				✗	Knowsley Brook		

REPORT

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
Off-site – current: Industrial park with vehicle servicing and a woodworking machinery factory Off site – historical: Dismantled tramway, paper works, engineering works, electrical substation, food factory, several tanks	Metals, hydrocarbons, solvent and Polychlorinated biphenyls (PCBs)	Groundwater	Direct contact/ingestion	✗	Future site users	Low	There is a potential for contaminants to migrate beneath the site from off-site sources in any shallow groundwater present in the Made Ground or granular soils within the superficial deposits. However, the largely cohesive nature of the superficial deposits will limit migration.
			Inhalation of volatiles	✗	Future site users	Low	
On and off-site – Made Ground	Carbon dioxide and methane	Ground Gas	Inhalation of ground gas	✓	Future site users Off-site users	Low to moderate	No significant ground gas sources identified other than potential for localised Made ground.
			Explosive risks	✓	Future site users Off-site users Future and off-site Structures	Low to moderate	

2.5.6 Based on the identified potential sources and the site setting there is not considered to be a significant risk to ecological receptors, crops/vegetation or archaeological receptors.

- 3.2.4 A return visit for groundwater sampling was carried out on 22nd August 2022. The monitoring wells were inspected for the presence of free-phase hydrocarbon product using an oil/water interface probe and the depth to groundwater was recorded prior to sampling.
- 3.2.5 Ground gas monitoring was undertaken on three occasions, from 15th August 2022 to 5th September 2022. Installations were monitored for concentrations of methane, carbon dioxide, carbon monoxide, hydrogen sulphide, oxygen and iVOCs. In addition, the flow rate and barometric pressure were recorded.

3.3 Investigation Rationale

- 3.3.1 The rationale behind each of the site investigation locations is summarised in the table below.

Table 3.1: Parcel 1 Exploratory Location Rationale

Exploratory Location ID	Location on Site	Rationale
WS04	East of site	To provide geo-environmental information for the assessment of soil and groundwater contamination and groundwater and ground gas monitoring. To provide geotechnical data to support the design of proposed structures and foundations.
WS05	Centre of site	
WS06	South of site	Within footprint of former pond utilised to locate possible pond sediment.
WS07	South-west of site	To the west of footprint of former pond utilised for delineation of pond sediment.
CP03	West of site	To provide geo-environmental information for the assessment of soil and groundwater contamination and groundwater and ground gas monitoring.
CP04	East of site	
TP04	North-east of site	To provide geotechnical data to support the design of proposed structures and foundations.
TP05	Centre of site	
TP06	North of site	To the west of footprint of former pond utilised for delineation of pond sediment.
TP07	North-west of site	
TP08	South of site	
TP09	South of site	To the west of footprint of former pond utilised for delineation of pond sediment. To allow for infiltration test to be undertaken.

Table 3.2: Parcel 2 Exploratory Location Rationale

Exploratory Location ID	Location on Site	Rationale
WS01	South-west of site	To provide geo-environmental information for the assessment of soil and groundwater contamination and groundwater and ground gas monitoring.
WS02	Centre of site	
WS03	East of site	To provide geotechnical data to support the design of proposed structures and foundations.
CP01	East of site	
CP02	West of site	To provide geotechnical data to support the design of proposed structures and foundations.
TP01	North-west of site	
TP02	South of site	
TP03	North-east of site	

4 SITE INVESTIGATION FINDINGS

4.1 Geology

- 4.1.1 The strata encountered during the intrusive investigation are summarised in the table below, and described in the following section. The ground conditions across both parcels of land have been discussed as a single site area.
- 4.1.2 One historical borehole log ref: SJ49NW1079 located approximately in the region of proposed Parcel 2 development have been provided on the BGS website. The geology and stratification that are presented on the BGS website logs are similar to the current site investigations findings summarised in table below.

Table 4.1: Encountered Strata During Current Site Investigation

Strata	Depth to top of strata m BGL (m AOD)	Thickness (m)
Made Ground	Ground Level (31.75 to 27.13)	1.20 to 3.80 (where proven*)
Sediment	1.45 – 3.10 (25.90- 24.73)	0.10 to 0.30 (where proven)
Glacial Till	1.20 to 2.15 (29.51 to 28.85)	0.60 to 1.80 (where proven)
Chester Formation	1.65 to 3.30 (25.7 to 24.53)	0.10 to 6.00 (where proven)

*Borehole TP02, 07 and 08 were terminated at 3.5m, 1.8m and 3.5m bgl respectively depth within the Made Ground.

- 4.1.3 Ground level in the proposed Parcel 2 is slightly variable across the site in the range of approximately 31.75m AOD in the northeast to 30.05m AOD in the south-west whilst based on the ground level at the locations of exploratory holes. Ground level in proposed Parcel 1 varies from approximately 28.35m AOD in the northeast to 27.13m AOD in the south-west based on the ground level at the locations of exploratory holes.
- 4.1.4 A geological cross-section in the approximate direction of northeast to south-west for the Parcel 1 site is presented in Figure 6 and for the Parcel 2 site in approximate direction of east to west is presented in Figure 7 respectively.
- 4.1.5 The Glacial Till and the completely weathered Chester Formation are very similar in nature and therefore distinguishing between these two strata can be difficult. For the purposes of this report where strata was encountered which was red brown in colour and is stiff in nature this has been classified as weathered Chester Formation. Whereas where the strata was brown, mottled brown or orange brown and has a consistency of less than stiff, this has been classified as Glacial Till.
- 4.1.6 General descriptions of the strata encountered during the intrusive investigation are summarised below. Reference should be made to the exploratory hole logs within Appendix E of this report for full descriptions of ground conditions underlying the site.
- 4.1.7 Geotechnical laboratory results are provided as Appendix H.
- 4.1.8 Surface covering across both parcels of land generally comprised grass and rough vegetation. In Parcel 2 localised Glacial Till was encountered underlaying the Made Ground, whereas similar strata was not encountered in Parcel 1.
- 4.1.9 Historically there are two streams which ran through Parcel 1 and a pond mapped on the 2022 plan. During the site investigation black organic rich material was encountered in a number of boreholes. This was located in a few exploratory holes beneath the Made Ground in areas where historically the streams may have run. Therefore, this may potentially relate to organic rich sediment within the streams and ponds.

was encountered at various depths across the site, however, in general the bedrock was shallower in the Parcel 1 site.

- 4.1.30 The stratum was recovered generally as red brown slightly clayey gravelly sand and red brown sandy gravelly clay. Locally weathered red and brown sandstone and mudstone were encountered at depth. Gravel is subangular to subrounded fine to coarse of sandstone and mudstone.
- 4.1.31 Twenty Standard Penetration Tests (SPTs) undertaken within the Chester Formation Sandstone in Parcel 1 and Parcel 2 sites at depths ranging from approximately 2.00 m to 9.00 m bgl gave N_{60} values ranged from 22 to greater than 100, which is indicative of a dense to very dense sand/weak rock. Graphs showing N_{60} versus depth are present in Figure 8 and Figure 9.
- 4.1.32 Particle Size Distribution (PSD) testing was undertaken on six samples collected from the Chester Formation Sandstone at depths ranged from 1.20 m to 5.00 m bgl. The constituents of the sample are summarised below:
- Gravel: 11% to 55%;
 - Sand: 28% to 57%;
 - Silt: 12% to 24%; and
 - Clay: 5% to 18%.
- 4.1.33 The results indicate a slightly silty clayey sand and gravel which generally agrees with the field description.

4.2 Groundwater

- 4.2.1 During drilling, groundwater was encountered within the Chester Formation at depths ranging from approximately 3.60m bgl (24.46m AOD) to 9.00m bgl (21.05m AOD).
- 4.2.2 During trial pitting, groundwater was also encountered within the Made Ground at depths ranging from approximately 1.10m bgl (29.51m AOD) to 1.90m bgl (28.71m AOD).
- 4.2.3 Groundwater levels recorded during subsequent monitoring visits to site are summarised in the table below:

Table 4.2: Groundwater Level Data

Site	Monitoring Well ID	Well Screen Depth (m bgl) [m AOD]	Strata Screened	Depth to Water m bgl [m AOD]		
				15/08/2022	22/08/2022	05/09/2022
Parcel 1	CP03	3.60m to 5.60m bgl	Glacial Till and Chester Formation	1.39 [26.67]	1.21 [26.85]	1.43 [28.06]
	CP04	3.00m to 4.60m bgl	Glacial Till	2.34 [24.92]	2.58 [24.68]	2.72 [24.54]
	WS04	2.00m to 3.00 bgl	Made Ground and Glacial Till	1.27 [27.01]	1.30 [26.98]	1.63 [26.65]
	WS05	1.70m to 2.70m bgl	Made Ground, Sediment and Glacial Till	2.37 [25.38]	2.41 [25.34]	2.45 [25.30]
	WS06	2.00m to 3.00m bgl	Made Ground	3.02 [24.81]	3.05 [24.78]	3.00 [24.83]
	WS07	1.50m to 3.00m bgl	Made Ground	2.68 [24.67]	2.77 [24.58]	2.84 [24.51]
Parcel 2	WS01	0.20m to 0.90m bgl	Made Ground	0.90 [29.19]	0.90 [29.19]	0.90 [29.19]

Site	Monitoring Well ID	Well Screen Depth (m bgl) [m AOD]	Strata Screened	Depth to Water m bgl [m AOD]		
				15/08/2022	22/08/2022	05/09/2022
	WS02	1.00m to 2.00m bgl	Made Ground	1.02 [29.99]	1.07 [29.94]	1.76 [29.25]
	WS03	0.80m to 2.80m bgl	Made Ground and Chester Formation	2.73 [28.78]	2.74 [28.77]	2.77 [28.74]
	CP01	5.00m to 9.00m bgl	Glacial Till	4.17 [25.88]	4.20 [25.85]	4.24 [25.81]
	CP02	3.00m to 5.00m bgl	Glacial Till and Chester Formation	4.55 [27.06]	4.63 [26.98]	4.62 [26.99]

4.2.4 Groundwater encountered during the intrusive works and the subsequent monitoring is considered to be at a similar elevation and it cannot be distinguished into separate groundwater bodies. Therefore, it is considered that groundwater across the site is effectively forming one body of groundwater, with the water in the Made Ground, Secondary Undifferentiated Aquifer (Glacial Till) and Principal Aquifer (Chester Formation) in hydraulic connectivity.

4.2.5 Groundwater depth within the shallow soils is variable across the site, however, flow direction is likely to be towards the south-west.

4.3 Field Evidence of Contamination

Visual and Olfactory Evidence of Contamination

4.3.1 No visual or olfactory evidence of contamination was noted within soil or groundwater during the intrusive investigation.

Photo-Ionisation Detector (PID) Readings

4.3.2 Soil arisings from each exploratory hole were screened for the presence of iVOCs using a PID. No elevated concentrations of volatile contaminants (>100 parts per million (ppm)) were recorded.

4.3.3 PID readings from soil samples collected from the boreholes ranged from below limit of detection (<0.1ppm) and 13.8ppm.

4.3.4 Full records of PID readings are presented on the exploratory logs within Appendix E.

4.3.5 During subsequent ground gas and groundwater monitoring visits, PID readings generally ranged from below limit of detection (<0.1ppm) and 4.8ppm. PID readings did not exceed 10ppm on any occasion, which would potentially indicate the presence of Volatile Organic Compounds.

6 GROUNDWATER CONTAMINATION ASSESSMENT

6.1 Controlled Waters

- 6.1.1 The following section summarises the groundwater analytical data and provides a comparison to published assessment criteria (AC).
- 6.1.2 Based on the outline conceptual site model, the primary controlled waters receptor is considered to be the underlying Secondary Undifferentiated Aquifer relating to the Glacial Till which in turn is underlain by the Principal Aquifer relating to the Chester Formation – Sandstone. Groundwater was encountered across the site and strata during the intrusive works and subsequent monitoring which indicate that the Secondary Undifferentiated Aquifer and the Principal Aquifer are in hydraulic connectivity and are effectively forming one body of groundwater.
- 6.1.3 The nearest surface water is the part-culverted Knowsley Brook which is 80m to the south at its closest point. This is potentially in hydraulic connectivity with the groundwater beneath the site.
- 6.1.4 Therefore, the groundwater analytical data have been compared to Environmental Quality Standards (EQS) for freshwater values and UK Drinking Water Standards (DWS).
- 6.1.5 For a number of chemicals of concern the EQS and DWS are less than the laboratory limit of detection. For the purpose of this preliminary assessment, where all samples are recorded at less than the laboratory limit of detection no further assessment is considered necessary.
- 6.1.6 The potential risk to on site human health receptors from contaminants of concern in groundwater is not addressed by these screening criteria.

Comparison of Groundwater Analyses to Controlled Waters Assessment Criteria

- 6.1.7 Chemical analysis was undertaken on two groundwater samples collected from monitoring wells with response zones targeting the Made Ground and two samples collected from Glacial Till and a sample collected from a well where the response zone targeted the Glacial Till and Chester Formation. A comparison of groundwater analyses to the relevant assessment criteria is summarised below and presented as Appendix J. Analytical certificates for groundwater samples are presented in Appendix K.

Table 6.1: Contaminants in Groundwater at Concentrations Exceeding the AC

Contaminant of Concern	Location	Assessment Criteria (µg/l)	Concentration (µg/l)
Nickel (dissolved)	WS04	20 (EQS)	22
Benzo(a)pyrene	WS02	0.05 (EQS)	0.108
Benzo(b)fluoranthene	WS02	0.03 (EQS)	0.12
Benzo(ghi)perylene	WS02	0.002 (EQS)	0.043
Benzo(k)fluoranthene	WS02	0.03 (EQS)	0.046
Fluoranthene	WS02	0.10 (EQS)	0.267
	CP04		0.105
Indeno(1,2,3-cd) pyrene	WS02	0.002 (EQS)	0.053
Total Cyanide	WS02	10 (EQS)	20

- 6.1.8 As shown in Table 6.1, a marginal exceedance of the assessment criteria have been detected for Nickel, a heavy metal, in one groundwater sample collected from WS04.

7 GROUND GAS RISK ASSESSMENT

7.1 Ground Gas Monitoring Data

7.1.1 Ground gas monitoring was undertaken on three occasions between 15th August 2022 and 5th September 2022. Monitoring wells were monitored for concentrations of methane, carbon dioxide and oxygen. In addition, the flow rate and barometric pressure were recorded. The results of the ground gas monitoring are presented in Appendix I.

7.1.2 Atmospheric pressures are presented in Table 7.1 below:

Table 7.1: Atmospheric Pressure Summary

Monitoring Date	Atmospheric Pressure Range (m Bar)	Pressure Trend
15/08/2022	997 to 998	Rising
22/08/2022	1006 to 1008	Steady
05/09/2022	1009 to	Rising

7.1.3 Methane was recorded at a maximum concentration of 65.3% volume/volume (v/v) in monitoring well WS05, screened within the Made Ground, Sediment Deposits and Glacial Till, on 15th August 2022. Methane concentration within this borehole were consistently high with readings between 61.5 and 65.3% v/v recorded throughout. In addition, high methane concentrations were recorded in WS06 (8.4 to 46.1% v/v), WS07 (28.5 to 35.8% v/v), and CP02 (3.9 to 8.5% v/v). Borehole WS06 and WS07 were screened within the Made Ground and CP02 was screened in the Glacial Till and Chester Formation.

7.1.4 Carbon dioxide was recorded at a maximum concentration of 32.5% v/v within monitoring well WS05, screened within the Made Ground, Sediment Deposits and Glacial Till, on 5th September 2022. Carbon dioxide concentration within this borehole were consistently high with readings between 32.5 to 33.1% v/v. In addition, high carbon dioxide concentrations were recorded in WS06 (14.1 to 28.7 % v/v) and WS07 (14.1 to 13.4% v/v). Carbon dioxide concentrations above 10% was also recorded in WS02, screened within the Made Ground, on the 22nd August 2022.

7.1.5 The maximum recorded steady ground gas flow rate was 0.8l/hr, recorded in monitoring well CP02, screened within the Glacial Till and Chester Formation, on 5th September 2022. There is no significant change in gas flow recorded throughout the monitoring period.

7.1.6 The lowest recorded oxygen concentration was below detection limit (0.1% v/v) within monitoring well WS05 screened within the Made Ground, Sediment Deposits and Glacial Till, on 15th August 2022 and 22nd August 2022. Depleted oxygen (concentrations less than 16%) was recorded in a number of boreholes throughout the monitoring period (WS03, WS05, WS06, WS07, CP01, CP02, CP03 and CP04).

7.1.7 Atmospheric pressure ranged from 997mb to 1011mb during the three monitoring periods.

7.1.8 Monitoring wells in WS04, CP01, CP03 and CP04 were fully flooded throughout the monitoring period and WS02 was partially flooded during the first two rounds of gas monitoring. Therefore, the reading from these boreholes may not be reflected of the ground gas regime and therefore have been discounted from the assessment.

7.1.9 Given the significant variation in gas monitoring for boreholes in Parcel 1 and those in Parcel 2, the assessment below has been separated to assess each development plot separately.

7.1.10 The ground gas monitoring data is presented in full as part of Appendix I.

7.2 Ground Gas Risk Assessment

- 7.2.1 CIRIA Report C665 '*Assessing risks posed by hazardous ground gases to buildings*' outlines indicative guideline concentrations for carbon dioxide and methane in association with gas flow rates for which gas protection measures may be required in new residential or commercial developments. The methodology is based on the Modified Wilson and Card approach that characterises the gas regime into a series of Characteristic Situations (1 to 5), with corresponding indicative gas protection measures.
- 7.2.2 BS8485:2015+A1:2019 '*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*' recommends calculation of borehole hazardous gas flow rates (Borehole Qhg) for each individual borehole and for each monitoring event multiplying the maximum recorded stabilised flow in any standpipe in a strata with the maximum peak gas concentration. BS8485 also indicates that the worst case Qhg should be calculated for each hazardous gas by multiplying the maximum recorded stabilised flow in any standpipe in a strata (and zone) with the maximum peak gas concentration in any other standpipe in that strata (and zone).
- 7.2.3 Based on the ground gas monitoring associated with this site investigation, the maximum Borehole Qhg for the site as a whole and for each parcel separately is provided in the following table.

Table 7.2: Atmospheric Pressure Summary

Site Area	Maximum Borehole Qhg	
	Methane	Carbon dioxide
Whole Site	0.0653	0.0696
Parcel 1	0.0653	0.0331
Parcel 2	0.0312	0.0696

- 7.2.4 The worst case Qhg is calculated by combining the characteristic steady flow rate from any standpipe with the highest gas concentrations from any borehole. For parcel 1 this is calculated using the characteristic steady flow rate of 0.1 and the highest gas concentration for methane of 65.3%, therefore giving a Qhg of 0.0653. For Parcel 2 this is calculated using the characteristic steady flow rate of 0.8 and the highest gas concentration for carbon dioxide of 13.9, therefore giving a Qhg of 0.1112.
- 7.2.5 For parcel 2 the Qhg is within the gas screening value range indicative of Characteristic Situation 2 (CS2), whereby basic gas protection measures are required.
- 7.2.6 For Parcel 1, the Qhg is within the gas screening value range indicative of Characteristic Situation 2 (CS2). However, it should be noted that the consistently significantly high methane and carbon dioxide concentrations were recorded during the site investigation. Within Parcel 1 black organic rich soils were identified and also the Made Ground across the site also contains locally high organic content, timber and hydrocarbon odour. It is considered that these deposits may be the source of the elevated Methane and Carbon Dioxide. It is recommended that further monitoring to determine the long-term gas generation at the site and further assessment of potential risk is undertaken prior to confirmation of the gas Characterisation Situation and design of the gas protection measures.
- 7.2.7 Gas protection measures should be designed and implemented in accordance with the requirements of BS 8485:2015+A1:2019 '*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*'.

Table 8.1: Revised Conceptual Site Model – Parcel 1

Potential Source	Contaminants of Concern	Via Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Made Ground, and localised hydrocarbon impacted shallow perched water.	Asbestos	Direct contact/ingestion	x	Future site users	Low	No chemical exceedances within sampled soils. Asbestos identified within soil samples is unlikely to be mobilised post development once covered by buildings, hardstanding, and manged landscaping.
On site – historical: N/A						
		Inhalation of volatiles	x		Low	No volatile contamination exceedances recorded.
		Airborne migration of soil or dust	x	Off-site users	Low	Post development cover will prevent airborne migration of potential contaminants.
		Leaching of mobile contaminants	x	Secondary Undifferentiated Aquifer Principal Aquifer	Low	Presence of hardstanding across the site will reduce rainfall infiltration into the shallow soils across the site
		Direct contact/ingestion	x	Future site users Off-site users	Low	Presence of hardstanding will prevent direct contact with any contaminants.
		Inhalation of volatiles	x	Future site users Off-site users	Low	No volatile contamination exceedances recorded.
		Vertical and lateral migration in permeable strata	x	Secondary Undifferentiated Aquifer Principal Aquifer Knowsley Brook	Low	Given the distance to the surface water receptors and the closest groundwater abstraction point, and the presence of these cohesive layers within the strata, the risk to more sensitive receptor is reduced.

REPORT

Potential Source	Contaminants of Concern	Via Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
Off-site – current: Industrial parks with vehicle servicing and a woodworking machinery factory Off site – historical: Dismantled tramway, paper works, engineering works, electrical substation, food factory, several tanks	PAHs	Direct contact/ingestion	✗	Future site users	Low	Post development cover will prevent exposure. Limited shallow groundwater present.
		Inhalation of volatiles	✗	Future site users	Low	No volatile contamination exceedances recorded.
On and off-site – Made Ground	Carbon dioxide and methane	Inhalation of ground gas	✓ ✓	Future site users Off-site users	Low to Moderate	Significantly elevated methane and carbon dioxide concentrations were recorded on site which pose a risk to end users. CIRIA CS2 is applicable to the site however further assessment is recommended to confirm this.
		Explosive risks	✓ ✓ ✓	Future site users Off-site users Future and off-site Structures	Low to Moderate	Potentially explosive gases were not recorded at elevated concentrations during ground gas monitoring. However, it should be noted that significant concentrations of methane were detected, albeit at concentrations above the upper explosive limit. Therefore, there is potential for methane to be present within the explosive limit range beneath the site.

Table 8.2: Revised Conceptual Site Model – Parcel 2

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Made Ground, Potential cement bound asbestos sheeting was encountered in the east of the site during historical site investigation.	Asbestos	Soil	Direct contact/ingestion	x	Future site users	Low	No chemical exceedances within sampled soils. Asbestos identified within soil samples is unlikely to be mobilised post development once covered by buildings, hardstanding, and manged landscaping.
			Inhalation of volatiles	x		Low	No volatile contamination exceedances recorded.
			Airborne migration of soil or dust	x	Off-site users	Low	Post development cover will prevent airborne migration of potential contaminants.
			Leaching of mobile contaminants	x	Secondary Undifferentiated Aquifer Principal Aquifer	Low	Presence of hardstanding across the site will reduce rainfall infiltration into the shallow soils across the site
On site – historical: N/A		Groundwater	Direct contact/ingestion	x x	Future site users Off-site users	Low	Presence of hardstanding will prevent direct contact with any contaminants.
			Inhalation of volatiles	x x	Future site users Off-site users	Low	No volatile contamination exceedances recorded.
			Vertical and lateral migration in permeable strata	x x x	Secondary Undifferentiated Aquifer Principal Aquifer Knowsley Brook	Low	Given the distance to the surface water receptors and the closest groundwater abstraction point, and the presence of these cohesive layers within the strata, the risk to more sensitive receptor is reduced.

REPORT

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
Off-site – current: Industrial park with vehicle servicing and a woodworking machinery factory Off site – historical: Dismantled tramway, paper works, engineering works, electrical substation, food factory, several tanks	PAH	Groundwater	Direct contact/ingestion	x	Future site users	Low	Post development cover will prevent exposure. Limited shallow groundwater present.
			Inhalation of volatiles	x	Future site users	Low	No volatile contamination exceedances recorded.
On and off-site – Made Ground	Carbon dioxide and methane	Ground Gas	Inhalation of ground gas	x x	Future site users Off-site users	Low	CIRIA CS2 is applicable to the site, whereby basic ground gas protection may be required. Where installed, gas protection measures will break this pathway.
			Explosive risks	x x	Future site users Off-site users Future and off-site Structures	Low	Potentially explosive gases were not recorded at elevated concentrations during ground gas monitoring.

8.5.3 The risk assessment is based upon the available information relating to the site and recommended mitigation measures being implemented. Should ground conditions inconsistent with those outlined in this report be encountered RPS should be contacted to enable further assessment.

9 GEOTECHNICAL ASSESSMENT

9.1 Introduction

- 9.1.1 It is proposed to redevelop the site as two parcels. The Parcel 1 site is understood to comprise the construction of two light industrial buildings, with external loading bay, dock levellers and car parking areas. A proposed development plan is presented in Appendix C.
- 9.1.2 The Parcel 2 site is understood to comprises the construction of two light industrial buildings (both split into several units), with external yard and car parking areas. A proposed development plan is presented in Appendix C.
- 9.1.3 No preliminary structural loads have been received. Therefore, the preliminary recommendations below will need to be reviewed in light of subsequent detailed design.

9.2 Preliminary Geotechnical Risk Register

- 9.2.1 The table below summarises the potential geotechnical hazards associated with the development. The table provides an assessment of whether the site is likely to be affected by the hazard and the possible consequences and engineering considerations.

Table 9.1: Geotechnical Risk Register

Hazard Description	Potential for Hazard	Comments / Possible Engineering Requirements
Sudden lateral / vertical changes in ground conditions	Low to Moderate	The ground conditions from existing ground level are generally consistent with Made Ground of shallow to medium depth overlying the Glacial Till and Chester Formation. The Glacial Till and Chester Formation will provide a suitable bearing stratum for low to moderate loads, where this is at least medium strength clay or medium dense sand. For more heavily loaded structures, piled foundations, socketed within Chester Formation will be required.
Highly compressible / low bearing capacity soils, (including peat and soft clay)	Low to Moderate	Thickness of Made Ground was encountered across the site is highly variable from 0.90m to 3.80m.
Ground dissolution features / natural cavities	Low	Ground conditions beneath the site are not consistent with these conditions.
Shrinking and swelling clays	Moderate	Based on the Atterberg Test results Glacial Till is considered a material subject to low to medium volume change potential. Based on the moisture content results there does appear to be evidence of a desiccation zone of Glacial Till in some locations in the Parcel 2 site. Mature trees have been identified adjacent to the site. The potential effect of these on the depth required for foundations should be assessed in accordance with the NHBC Standards.
Slope stability issues	Low	Whilst no significant slopes are present on site (maximum differential level across the sites is less than 2.00m), any temporary slopes created as part of the development should be subject to appropriate geotechnical design based on available site investigation information.

Hazard Description	Potential for Hazard	Comments / Possible Engineering Requirements
High groundwater table (including waterlogged ground)	Moderate to High	Groundwater seepage was encountered at depths from 1.10 m to 1.90 m bgl within the Made Ground and at 3.60m bgl to 9.00 m bgl within the Chester Formation during the site works and from 0.90 m to 4.63 m bgl (29.19 m to 24.98 m AOD) during the subsequent monitoring visits. Excavations below this depth may be unstable and excavation support as well as groundwater control measures may be required. Particular attention should go to potential contamination of Principal Aquifer within bedrock due to excavation and pile installation.
Filled and Made Ground (including embankments)	Moderate	Made Ground was encountered with a variable thickness up to 3.80m beneath both sites.
Obstructions (including foundations, services, basements, tunnels and adjacent sub-structures)	Low to Moderate	The site does not have a significant development history and it is considered unlikely that relic structures will be present beneath the site. However, if present it is likely these obstructions, may be removed using standard construction plant.
Underground mining	Low	Ground conditions beneath the site are not consistent with these conditions.
Concrete classification	Low	Testing has indicated a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) Classification of AC-2z would be appropriate for all buried concrete structures.
Seismic Activity	Low	The Eurocode 8 seismic hazard zoning maps for the UK (Musson and Sargeant, 2007) indicate that horizontal Peak Ground Acceleration (PGA) values with 10% probability of being exceeded in 50 years (475 year return period) are between 0.00 and 0.02g, which is considered very low.

9.2.2 The potential risks are given one of the following classifications:

- **Low risk** - it is considered unlikely that issues within the category will give rise to significant damage in relation to the proposed development.
- **Moderate risk** - it is possible, but not certain that issues within the category will give rise to significant damage in relation to the proposed development.
- **High risk** - there is a high potential that issues within the category will give rise to significant damage in relation to the proposed development.
- **N/A** - The anticipated ground conditions are not consistent with this hazard.

9.3 Preliminary Geotechnical Parameters

9.3.1 The following table shows the preliminary anticipated ground model and geotechnical parameters based on the findings of the preliminary intrusive investigation and subsequent testing.

Table 9.2: Preliminary Ground Model and Geotechnical Parameters

Stratum	Depth to Top of Stratum (m bgl) [m AOD]	Bulk Unit Weight, γ_b (kN/m ³)	Effective Friction Angle, ϕ' (°)	Undrained Shear Strength, C_u (kPa)	Undrained Elastic Modulus (MPa)	Drained Elastic Modulus (MPa)
Parcel 1 Land						
Made Ground	Ground Level [28.35 to 27.13]	18 ^(I)	-	30 ^(I)	10 ^(I)	7 ^(I)
Chester Formation Sandstone/Mudstone	1.65 to 3.30 [25.70 to 24.53]	19 ^(I)	34 ^(I)	-	-	100 ^(IV)
Parcel 2 Land						
Made Ground	Ground Level [31.75 to 30.05]	18 ^(I)	-	30 ^(I)	10 ^(I)	7 ^(I)
Glacial Till	1.20 to 2.15 [28.85 to 28.51]	19 ^(I)	-	30+50z ^(II)	10.8+18z ^(II, III)	8.1+13.5z ^(II, III)
Chester Formation Sandstone/Mudstone	2.40 to 3.00 [29.35 to 27.05]	19 ^(I)	34 ^(I)	-	-	100 ^(IV)

I. Conservative estimate.

II. z = depth below surface of the Glacial Till (2 m bgl) to 4 m bgl.

III. Trenter N.A. Engineering in Devensian tills CIRIA C504, 1999, based on $E_u=360C_u$ and $E'=0.75E_u$.

IV. C.R.I. Clayton (1995) - The Standard Penetration Test (SPT): Method and Use, CIRIA R143, based on $E'=N(\text{MPa})$

9.4 Temporary Works and Excavations

- 9.4.1 Groundwater was encountered at depths from approximately 1.10 m bgl during intrusive works and 0.90 m bgl during subsequent monitoring visits. Therefore, groundwater exclusion and control measures may be required for proposed foundation excavations. It is considered that groundwater inflows should not be excessive and likely to be controlled via localised sump and pumping. If stronger inflows are encountered, recourse to a temporary groundwater exclusion system may be required, such as sheet piling.
- 9.4.2 If groundwater is encountered during excavation, degradation of the formation may occur. The formation should therefore be adequately protected from seepages and protected from adverse weather conditions. If the formation layer becomes wet resulting in loosening of the surface materials, then excavation may have to be taken deeper in order to find a suitable bearing layer.
- 9.4.3 The requirement for suitable shoring measures or battering of excavations must be assessed by a competent person. All excavations must be inspected regularly by a competent person, especially during and after periods of adverse weather. Reference should be made to CIRIA Report 97 – Trenching Practice with respect to temporary safe slope angles for excavations.

9.5 Reuse of Excavated Material

- 9.5.1 Based on the site topographical conditions, approximate ground levels vary up to approximately from 1.20 m across the Parcel 1 site to 1.70m across the Parcel 2 site, thus some degree of cut and fill may be required to build a platform enabling the installation of the proposed structures.
- 9.5.2 In the absence of the final formation level and cut and fill drawings, identifying the locations to collect soil samples for earthworks purposes will not be accurate, however, two samples from Made Ground across the sites were collected to undertake compaction testing.
- 9.5.3 One sample was collected from CP01 in Parcel 2 site and compacted in the Standard Proctor mould with 2.5kg hammer. Another sample was collected from CP04 in Parcel 1 site and was compacted with 4.5kg hammer. The compaction results are presented in Appendix F. The results

9.6.16 In the absence of sufficient depth of the ground investigations within Chester Formation - sandstone/mudstone, this stratum's geotechnical properties were adopted conservatively to provide a preliminary pile assessment. It is strongly recommended that further investigation with adopting proper techniques for sufficient penetration within this stratum together with appropriate in-situ and lab testing.

9.6.17 Preliminary pile capacities for a range of pile diameters between 300mm and 600mm are presented in the table below based on CFA or bored cast in place piles constructed on site.

Table 9.3: Preliminary Total Design Resistance (kN) of CFA/Bored Piles (No Pile Tests)

Pile Diameter (mm)	Pile Toe Depth (m bgl)		
	6	10	14
300	131	229	345
	<i>29</i>	<i>62</i>	<i>109</i>
450	267	457	675
	<i>44</i>	<i>93</i>	<i>164</i>
600	451	761	1109
	<i>59</i>	<i>124</i>	<i>219</i>

Tensile resistances shown in italics.

9.6.18 The preliminary pile capacities provided are based on the parameters outlined in Table 9.2 and the following:

- No contribution from ground level to 3.8m bgl in the region of the Made Ground;
- No consideration of negative skin friction induced from any settlement of the overlying Made Ground;
- An adhesion value of 0.50 in the Glacial Till;
- Groundwater at 0.9 m bgl;
- Piles terminating within three pile diameters of the depth of the investigation; and
- Geotechnical properties of Chester Formation in deeper sections (below maximum depth of the current site investigations) have been assumed to be the same as the upper sections.

9.6.19 Partial safety factors have been applied to the calculated pile capacities above in accordance with Design Approach 1: Combination 2, as detailed within Tables A.6, A.7 and A.8 of Annex A in BS EN 1997-1. The capacities provided assume a model factor of 1.4. Should preliminary pile tests be carried out, a reduced model factor of 1.2 can be adopted.

9.6.20 The loads provided should be compared against appropriately factored actions.

9.6.21 Loads are based on single piles only and do not take into account the action of groups of piles. This should be considered at the detailed design stage. The pile capacity estimates presented above are preliminary and are based on a conservative soil profile derived from exploratory holes undertaken on site.

9.6.22 Should a ground bearing floor slab be adopted or the build-up of site levels be undertaken, the potential for this to load the near surface soils and induce negative skin friction on foundation piles would need to be assessed.

9.6.23 Consideration should be given to the presence of groundwater at approximately 0.9 m bgl during pile construction. Groundwater may cause instability with an open bored hole, therefore, a CFA method of drilling may be deemed more appropriate or, alternatively, casing installed during drilling.

9.6.24 Early consultation with an appropriate piling contractor is recommended to confirm pile working capacities and to ensure the contractor can achieve the required depths and capacities. Specialist

piling contractors may potentially show greater load capacities than those shown above based on specific knowledge of their piling equipment, supported by testing evidence that may be acceptable to the Local Authority.

- 9.6.25 An appropriate piling platform should be designed and constructed in accordance with BRE 470 (Working Platforms for Tracked Plant).

9.7 Floor Slabs

- 9.7.1 If the Made Ground is present at floor slab formation level beneath the proposed development then ground bearing slabs unlikely to be suitable without the use of the ground improvement.
- 9.7.2 If the ground improvement is not feasible within the Made Ground to support a ground bearing floor slab then, suspended floor slabs would be required to prevent excessive total and differential settlement, whereby settlement beneath the slab would be controlled by the foundations of the building. Additional loads from suspended floor slabs should be taken into account when designing foundations for the proposed development.
- 9.7.3 It should be noted that the gas monitoring carried out to date indicates a characteristic situation 2 (CS2) in Parcel 2 and CS2 in Parcel 1, subject to further assessment. accordance with CIRIA document C665. Gas protection measures should be designed in line with BS 8485:2015+A1:2019 '*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*'.

9.8 Pavements

- 9.8.1 It is understood areas of hardstanding car parking and access roads will be present across the site. Finished levels have not been provided at the time of writing this report.
- 9.8.2 19 in-situ California Bearing Ratio (CBR) were undertaken at the exploratory hole locations across the sites to assess of shallow deposit up to 1.0 m bgl, for roads and hardstanding using the TRL² guideline Dynamic Cone Penetrometer (DCP) cone plunger method in order to facilitate pavement design at approximately 0.90m bgl. The results of the testing are presented in Appendix F.
- 9.8.3 Equivalent calculated CBR versus depth are highly variable in the range of 2% to 93% in Parcel 1 site and 2% to 29% in Parcel 2 site respectively.
- 9.8.4 Remoulded CBR testing were undertaken on four samples collected from boreholes in various depths ranging from 0.8 m to 1.2 m bgl. Test results are presented in Appendix F and summarised in below table.

Table 9.4: California Bearing Ratio Test Results Summary

Test Reference	Formation Soil	Depth of Sampling (m bgl)	Moisture Content (%)	Unsoaked CBR value (%)	Soaked CBR value (%)
CP01	Made Ground	0.0 to 0.8	27	4.4	3.1
CP02	Made Ground	0.0 to 1.2	15	3.8	-
CP03	Made Ground	0.8 to 1.2	18	2.2	1.3
CP04	Made Ground	0.0 to 1.2	18	20.2	-

² Colin Jones (2004) - Dynamic Cone Penetrometer tests and analysis: Technical Information Note, TRL PROJECT REPORT PR/INT/277/04

9.8.5 Given the variable nature of the Made Ground encountered across the site and the results of the insitu testing and laboratory test results, it is recommended that a preliminary design CBR value of 2% for the Made Ground is adopted.

9.8.6 It would be prudent to undertake further plate load tests to determine CBR values when final road levels are known, prior to construction, to advise the design process.

9.8.7 The subgrade surface modulus E, can be derived from the CBR using the following equation:

$$E = 17.6 (\text{CBR})^{0.64} \text{ MPa, where CBR is given as a \% value}$$

9.8.8 Thus, for a CBR values of 2%, the corresponding subgrade surface modulus values E, are 27Mpa for the Made Ground.

9.9 Ground Infiltration

9.9.1 Three soakaway tests were undertaken in Trial Pits TP03, TP06 and TP09 in accordance with BRE Digest 365 (2016). TP03 and TP06 were excavated within Made Ground and the Chester Formation and TP09 was within Made Ground, Sediment Deposits and the Chester Formation (see the borehole logs in Appendix E). Soakaway test results were presented in Appendix G. No successful infiltration was observed and as such infiltration drainage is not considered viable for the site development.

9.10 Chemical Attack on Buried Concrete

9.10.1 Samples collected from the Made Ground, Glacial Till and Chester Formation were tested for pH and for sulphate content. The results are presented below:

Table 9.5: pH and Sulphate Analytical Data

Strata	No. of Samples	pH Range	Characteristic pH	Sulphate Range (mg/l)	Characteristic Sulphate (mg/l)	Design Sulphate Class	ACEC Class
Made Ground	4	5.9 - 8.5	5.9	25 - 65	65	DS-1	AC-2z
Glacial Till	1	8.4	8.4	16	16	DS-1	AC-1
Chester Formation (Mudstone)	1	7.2	7.2	58	58	DS-1	AC-1

9.10.2 The data was used to assess appropriate classification for buried concrete in accordance with BRE Special Digest 1, based on the following assumptions:

- Brownfield ground conditions; and
- Mobile groundwater conditions.

9.10.3 Based on the above, it is considered that a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) Classification of AC-2z would be appropriate for all buried concrete structures.

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Project Alchemy, Knowsley

Title Site Location Plan - Both Parcels

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Project Alchemy Parcel 1 Site

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Project Alchemy Parcel 2 Site

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