

Appendix B



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
MH1	0.028	5.00	10.000	100.000	100.000	0.661

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	1 year (l/s)	0.1
Rainfall Events	Singular	Drain Down Time (mins)	240	30 year (l/s)	0.4
Summer CV	1.000	Additional Storage (m³/ha)	0.0	100 year (l/s)	0.5
Winter CV	1.000	Starting Level (m)		Check Discharge Volume	x
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

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

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	2.40
Greenfield Method	IH124	Growth Factor 100 year	3.19
Positively Drained Area (ha)	0.026	Betterment (%)	0
SAAR (mm)	825	QBar	0.2
Soil Index	4	Q 1 year (l/s)	0.1
SPR	0.47	Q 30 year (l/s)	0.4
Region	7	Q 100 year (l/s)	0.5
Growth Factor 1 year	0.85		

Node MH1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03600	Safety Factor	2.0	Invert Level (m)	9.339
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	572

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	42.0	42.0	0.660	42.0	42.0	0.661	0.0	42.0

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	MH1	675	9.817	0.478	1.5	19.0692	0.0000	OK
Link Event (Upstream Depth)		US Node	Link	Outflow (l/s)				
720 minute winter		MH1	Infiltration	0.2				



Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute winter	MH1	900	9.964	0.625	1.5	24.9516	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
960 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH1	20	9.540	0.201	18.9	8.0396	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
15 minute summer		MH1		Infiltration	0.2			



Results for 30 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute winter	MH1	20	9.540	0.201	17.7	8.0316	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	MH1	35	9.606	0.267	17.4	10.6412	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	MH1	Infiltration	0.2

Results for 30 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	MH1	34	9.606	0.267	14.0	10.6620	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	MH1	64	9.675	0.336	13.3	13.4105	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	MH1	Infiltration	0.2

Results for 30 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
60 minute winter	MH1	63	9.676	0.337	9.6	13.4268	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	MH1	124	9.733	0.394	8.5	15.7056	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
120 minute winter	MH1	122	9.734	0.395	5.9	15.7601	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	MH1	184	9.763	0.424	6.3	16.9272	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
180 minute summer	MH1	Infiltration	0.2					

Results for 30 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
180 minute winter	MH1	180	9.763	0.424	4.3	16.9357	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	MH1	244	9.779	0.440	5.3	17.5731	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	MH1	Infiltration	0.2

Results for 30 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	MH1	240	9.783	0.444	3.5	17.6986	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
240 minute winter	MH1	Infiltration	0.2					

Results for 30 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	MH1	360	9.801	0.462	4.0	18.4278	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
360 minute summer	MH1	Infiltration	0.2					

Results for 30 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	MH1	352	9.802	0.463	2.6	18.4922	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	MH1	480	9.804	0.465	3.1	18.5579	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
480 minute summer	MH1	Infiltration	0.2					



Results for 30 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute winter	MH1	464	9.807	0.468	2.1	18.6701	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute summer	MH1	570	9.804	0.465	2.5	18.5518	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute winter	MH1	585	9.806	0.467	1.7	18.6285	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute summer	MH1	615	9.793	0.454	2.2	18.1044	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute winter	MH1	675	9.817	0.478	1.5	19.0692	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute summer	MH1	735	9.786	0.447	1.8	17.8456	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	MH1	Infiltration	0.2

Results for 30 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute winter	MH1	765	9.787	0.448	1.2	17.8676	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	MH1	1020	9.769	0.430	1.3	17.1665	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
1440 minute summer		MH1		Infiltration	0.2			

Results for 30 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute winter	MH1	1080	9.768	0.429	0.9	17.1243	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	MH1	1440	9.714	0.375	0.9	14.9558	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
2160 minute summer	MH1	Infiltration	0.2					

Results for 30 year +45% CC 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	MH1	1560	9.726	0.387	0.7	15.4362	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute winter	MH1	Infiltration	0.2



Results for 30 year +45% CC 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute summer	MH1	1860	9.712	0.373	0.8	14.8887	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute winter	MH1	1980	9.672	0.333	0.5	13.3058	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute winter	MH1	Infiltration	0.2



Results for 30 year +45% CC 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute summer	MH1	2640	9.658	0.319	0.6	12.7281	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute winter	MH1	2760	9.602	0.263	0.4	10.4740	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute winter	MH1	Infiltration	0.2



Results for 30 year +45% CC 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
5760 minute summer	MH1	3420	9.639	0.300	0.5	11.9861	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
5760 minute winter	MH1	3480	9.531	0.192	0.3	7.6556	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute summer	MH1	4140	9.586	0.247	0.4	9.8621	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute winter	MH1	4080	9.500	0.161	0.3	6.4048	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute winter	MH1	Infiltration	0.2



Results for 30 year +45% CC 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
8640 minute summer	MH1	4860	9.569	0.230	0.4	9.1676	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute summer	MH1	Infiltration	0.2

Results for 30 year +45% CC 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	MH1	4500	9.419	0.080	0.3	3.1767	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute winter	MH1	Infiltration	0.2

Results for 30 year +45% CC 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	MH1	5520	9.517	0.178	0.4	7.1188	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
10080 minute summer	MH1	Infiltration	0.2



Results for 30 year +45% CC 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
10080 minute winter	MH1	6240	9.387	0.048	0.2	1.9000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
10080 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute summer	MH1	20	9.594	0.255	23.8	10.1581	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	MH1	20	9.593	0.254	22.4	10.1532	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
15 minute winter	MH1	Infiltration	0.2					



Results for 100 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	MH1	35	9.680	0.341	22.1	13.6018	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	MH1	34	9.681	0.342	17.9	13.6267	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
30 minute winter		MH1		Infiltration	0.2			

Results for 100 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
60 minute summer	MH1	64	9.774	0.435	17.0	17.3579	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
60 minute winter	MH1	64	9.774	0.435	12.3	17.3605	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	MH1	124	9.839	0.500	10.7	19.9350	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
120 minute winter	MH1	122	9.842	0.503	7.4	20.0590	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
180 minute summer	MH1	184	9.873	0.534	7.9	21.3112	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
180 minute winter	MH1	184	9.877	0.538	5.4	21.4839	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute summer	MH1	244	9.901	0.562	6.6	22.4348	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute winter	MH1	240	9.902	0.563	4.4	22.4634	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
360 minute summer	MH1	360	9.927	0.588	5.0	23.4526	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
360 minute winter	MH1	352	9.930	0.591	3.2	23.5915	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute summer	MH1	480	9.945	0.606	3.9	24.1696	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute winter	MH1	472	9.952	0.613	2.6	24.4757	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute summer	MH1	600	9.945	0.606	3.2	24.1799	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute winter	MH1	585	9.964	0.625	2.2	24.9479	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	MH1	720	9.953	0.614	2.8	24.4906	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
720 minute summer	MH1	Infiltration	0.2					



Results for 100 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute winter	MH1	705	9.954	0.615	1.9	24.5224	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute summer	MH1	825	9.950	0.611	2.3	24.3950	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute winter	MH1	900	9.964	0.625	1.5	24.9516	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute summer	MH1	1110	9.949	0.610	1.7	24.3205	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute winter	MH1	1140	9.946	0.607	1.1	24.2207	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute summer	MH1	1560	9.928	0.589	1.2	23.5151	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute winter	MH1	1620	9.892	0.553	0.8	22.0768	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute summer	MH1	1920	9.894	0.555	1.0	22.1365	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	MH1	2100	9.903	0.564	0.7	22.5192	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute summer	MH1	2760	9.853	0.514	0.8	20.5040	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	MH1	2940	9.793	0.454	0.5	18.1279	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
5760 minute summer	MH1	3540	9.780	0.441	0.6	17.6021	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	MH1	3720	9.722	0.383	0.4	15.2621	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute winter	MH1	Infiltration	0.2



Results for 100 year +45% CC 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute summer	MH1	4320	9.743	0.404	0.5	16.1261	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute summer	MH1	Infiltration	0.2



Results for 100 year +45% CC 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute winter	MH1	4380	9.617	0.278	0.4	11.0788	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	MH1	5040	9.708	0.369	0.5	14.7116	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute summer	MH1	Infiltration	0.2

Results for 100 year +45% CC 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	MH1	5040	9.565	0.226	0.3	9.0010	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute winter	MH1	Infiltration	0.2

Results for 100 year +45% CC 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	MH1	5760	9.654	0.315	0.4	12.5821	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
10080 minute summer	MH1	Infiltration	0.2					

Results for 100 year +45% CC 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	MH1	5640	9.532	0.193	0.3	7.7121	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
10080 minute winter	MH1	Infiltration	0.2					



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
MH1	0.002	5.00	10.000	100.000	100.000	0.361

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	1 year (l/s)	0.0
Rainfall Events	Singular	Drain Down Time (mins)	240	30 year (l/s)	0.0
Summer CV	1.000	Additional Storage (m³/ha)	0.0	100 year (l/s)	0.0
Winter CV	1.000	Starting Level (m)		Check Discharge Volume	x
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

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

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)	0.002	Betterment (%)	0
SAAR (mm)	825	QBar	0.0
Soil Index	4	Q 1 year (l/s)	0.0
SPR	0.47	Q 30 year (l/s)	0.0
Region	7	Q 100 year (l/s)	0.0
Growth Factor 1 year	0.85		

Node MH1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03600	Safety Factor	2.0	Invert Level (m)	9.639
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	158

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	5.0	5.0	0.360	5.0	5.0	0.361	0.0	5.0



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
180 minute winter	MH1	172	9.900	0.261	0.3	1.2416	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	MH1	184	9.994	0.355	0.6	1.6856	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
180 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute summer	MH1	19	9.759	0.120	1.4	0.5704	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	MH1	Infiltration	0.0

Results for 30 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	MH1	19	9.755	0.116	1.3	0.5523	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute winter	MH1	Infiltration	0.0



Results for 30 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
30 minute summer	MH1	34	9.798	0.159	1.2	0.7574	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
30 minute winter	MH1	33	9.796	0.157	1.0	0.7468	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute winter	MH1	Infiltration	0.0



Results for 30 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
60 minute summer	MH1	63	9.835	0.196	0.9	0.9291	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	MH1	Infiltration	0.0

Results for 30 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	MH1	62	9.832	0.193	0.7	0.9181	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
60 minute winter	MH1	Infiltration	0.0					

Results for 30 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	MH1	122	9.892	0.253	0.6	1.2007	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
120 minute winter	MH1	118	9.869	0.230	0.4	1.0912	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	MH1	160	9.898	0.259	0.5	1.2294	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
180 minute winter	MH1	172	9.900	0.261	0.3	1.2416	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute summer	MH1	192	9.886	0.247	0.4	1.1754	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute summer	MH1	Infiltration	0.0

Results for 30 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	MH1	196	9.869	0.230	0.3	1.0909	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
240 minute winter	MH1	Infiltration	0.0					

Results for 30 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	MH1	256	9.854	0.215	0.3	1.0222	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
360 minute summer	MH1	Infiltration	0.0					



Results for 30 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
360 minute winter	MH1	272	9.874	0.235	0.2	1.1186	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	MH1	328	9.857	0.218	0.2	1.0346	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute winter	MH1	352	9.842	0.203	0.1	0.9626	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	MH1	405	9.852	0.213	0.2	1.0112	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute winter	MH1	435	9.871	0.232	0.1	1.1012	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute summer	MH1	465	9.852	0.213	0.2	1.0112	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute summer	MH1	Infiltration	0.0



Results for 30 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute winter	MH1	495	9.871	0.232	0.1	1.1012	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	MH1	Infiltration	0.0



Results for 30 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute summer	MH1	600	9.842	0.203	0.1	0.9662	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute summer	MH1	Infiltration	0.0

Results for 30 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	MH1	630	9.899	0.260	0.1	1.2362	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
960 minute winter	MH1	Infiltration	0.0					

Results for 30 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	MH1	870	9.868	0.229	0.1	1.0891	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
1440 minute summer	MH1	Infiltration	0.0					



Results for 30 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute winter	MH1	870	9.868	0.229	0.1	1.0891	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute summer	MH1	1260	9.863	0.224	0.1	1.0634	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
2160 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute summer	MH1	1560	9.749	0.110	0.1	0.5234	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
2880 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
4320 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
5760 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
7200 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
8640 minute summer	MH1	Infiltration	0.0					

Results for 30 year +45% CC 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute winter	MH1	Infiltration	0.0

Results for 30 year +45% CC 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
10080 minute summer	MH1	Infiltration	0.0					



Results for 30 year +45% CC 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
10080 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
10080 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute summer	MH1	20	9.790	0.151	1.7	0.7151	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
15 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	MH1	19	9.789	0.150	1.6	0.7134	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
15 minute winter	MH1	Infiltration	0.0					



Results for 100 year +45% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
30 minute summer	MH1	34	9.841	0.202	1.6	0.9602	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
30 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	MH1	34	9.844	0.205	1.3	0.9717	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
30 minute winter	MH1	Infiltration	0.0					



Results for 100 year +45% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	MH1	63	9.892	0.253	1.2	1.2027	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
60 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	MH1	62	9.902	0.263	0.9	1.2498	0.0000	OK
Link Event		US Node	Link	Outflow (l/s)				
60 minute winter		MH1	Infiltration	0.0				

Results for 100 year +45% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	MH1	122	9.932	0.293	0.8	1.3924	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
120 minute summer	MH1	Infiltration	0.0					



Results for 100 year +45% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
120 minute winter	MH1	120	9.928	0.289	0.5	1.3726	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
120 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	MH1	184	9.994	0.355	0.6	1.6856	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
180 minute summer		MH1		Infiltration	0.0			

Results for 100 year +45% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH1	176	9.958	0.319	0.4	1.5176	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
180 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	MH1	212	9.960	0.321	0.5	1.5236	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
240 minute summer		MH1		Infiltration	0.0			



Results for 100 year +45% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute winter	MH1	228	9.980	0.341	0.3	1.6196	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
240 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	MH1	272	9.955	0.316	0.4	1.5026	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
360 minute summer	MH1	Infiltration	0.0					



Results for 100 year +45% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
360 minute winter	MH1	288	9.945	0.306	0.2	1.4546	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
360 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	MH1	344	9.948	0.309	0.3	1.4666	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute summer	MH1	Infiltration	0.0



Results for 100 year +45% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute winter	MH1	360	9.958	0.319	0.2	1.5146	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
480 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
600 minute summer	MH1	420	9.918	0.279	0.2	1.3262	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
600 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	MH1	450	9.937	0.298	0.2	1.4162	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
600 minute winter	MH1	Infiltration	0.0					

Results for 100 year +45% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute summer	MH1	480	9.918	0.279	0.2	1.3262	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute summer	MH1	Infiltration	0.0



Results for 100 year +45% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute winter	MH1	525	9.928	0.289	0.1	1.3712	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
720 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	MH1	615	9.909	0.270	0.2	1.2812	0.0000	OK
Link Event		US Node		Link	Outflow (l/s)			
960 minute summer		MH1		Infiltration	0.0			



Results for 100 year +45% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute winter	MH1	660	9.956	0.317	0.1	1.5062	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
960 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute summer	MH1	900	9.925	0.286	0.1	1.3591	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	MH1	930	9.982	0.343	0.1	1.6291	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
1440 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 2160 minute summer. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2160 minute summer	MH1	1320	9.977	0.338	0.1	1.6034	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 2160 minute winter. 2400 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2160 minute winter	MH1	1320	9.977	0.338	0.1	1.6034	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2160 minute winter	MH1	Infiltration	0.0

Results for 100 year +45% CC 2880 minute summer. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
2880 minute summer	MH1	1680	9.977	0.338	0.1	1.6034	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
2880 minute summer	MH1	Infiltration	0.0					

Results for 100 year +45% CC 2880 minute winter. 3120 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
2880 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 4320 minute summer. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
4320 minute summer	MH1	2280	9.749	0.110	0.1	0.5234	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 4320 minute winter. 4560 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
4320 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 5760 minute summer. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
5760 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
5760 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 5760 minute winter. 6000 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
5760 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
5760 minute winter	MH1	Infiltration	0.0					



Results for 100 year +45% CC 7200 minute summer. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
7200 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 7200 minute winter. 7440 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
7200 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
7200 minute winter	MH1	Infiltration	0.0



Results for 100 year +45% CC 8640 minute summer. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
8640 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
8640 minute summer	MH1	Infiltration	0.0

Results for 100 year +45% CC 8640 minute winter. 8880 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
8640 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
8640 minute winter	MH1	Infiltration	0.0					

Results for 100 year +45% CC 10080 minute summer. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

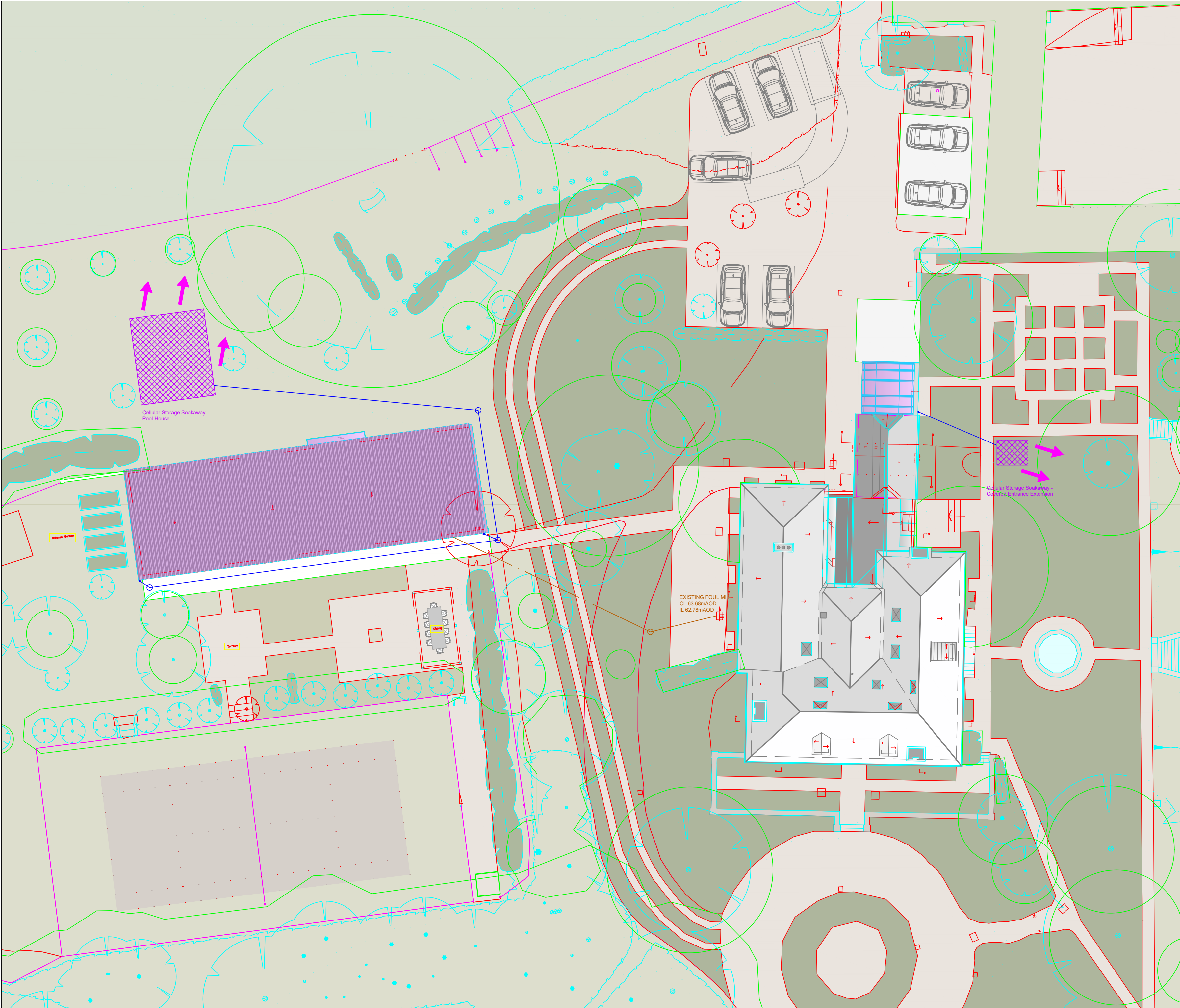
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute summer	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	Outflow (l/s)					
10080 minute summer	MH1	Infiltration	0.0					

Results for 100 year +45% CC 10080 minute winter. 10320 minute analysis at 60 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
10080 minute winter	MH1	60	9.639	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	Outflow (l/s)
10080 minute winter	MH1	Infiltration	0.0

Appendix C



- Notes:**
1. Discharge of surface water via cellular storage soakaways. Preliminary calculations indicate that sufficient storage required to attenuate runoff arising from the proposed Pool-House roof area and covered entrance extension roof area, during the critical 1 in 100 year + 45% Climate Change event, can be provided within cellular storage of dimensions 42m² x 0.66m deep x 0.95 (voids) and 5m² x 0.36m deep x 0.95 (voids), respectively.
 2. Water butts will be incorporated into the development.
 3. All new ground surfaces will be of permeable construction, with permeable paving utilised for all trafficked areas.
 4. All levels are in metres above ordnance datum.

- Legend**
- Proposed Cellular Storage Soakaway
 - Cellular Storage Soakaway Catchments
 - Proposed Surface Water Downpipe
 - Proposed Surface Water Manhole
 - Proposed Surface Water Pipework
 - Proposed Foul Manhole
 - Proposed Foul Pipework
 - Root Protection Areas
 - Design Exceedance Route



Unda Consulting Ltd
Southpoint
Old Brighton Road
Gatwick
RH11 0PR

Tel: 01293 214444
Email: info@unda.co.uk
Web: www.unda.co.uk

Client:
Peter Reid

Site Address:
Sunte House
Birchen Lane
Haywards Heath
RH16 1RZ

Job Reference: 95326-RichardParr-SunteHse_a	Date: 18-Jun-25
Drawing Number: 95326-01	Revision: 1.0

Designed by: EW	Drawn by: EW	Checked by: AR
---------------------------	------------------------	--------------------------

Scale: 1:200@A2	Disclaimer: The drawings provided are for planning purposes only.
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Appendix D

21/08/2023

CCTV DRAIN SURVEY

Customer Details**Name:** Hayley Reid**Email:** haybeer@gmail.com**Site address:**

Sunte House, Off Gander Green, Haywards Heath, West Sussex, RH16 1RZ.

Overview:

To attend site and conduct CCTV survey of all accessible below ground drains.

Findings:Foul Drainage:

The above property is served by a single foul drainage system comprised of 16 inspection chambers before then discharging into the authority sewer (see attached drawing) Although this drainage system is foul, it does also take some rainwater from the main house.

The external foul drainage system (underground) is mostly constructed of cast iron, with existing connections from the main house connected via "Burns Chambers", these are enclosed chambers with cast iron plates bolted on-top. These bolts remain in place and are likely to be seized due to corrosion. As a result, some connections could not be accessed and surveyed.

Newer connections from the main house are constructed of PVC and are connected to the drainage system via traditional inspection chambers and provide good access.

The existing cast iron pipework is heavily corroded in places and will require "milling" to remove rust and corrosion, this will provide a smoother surface for waste to drain through.

The drainage system was blocked on arrival due to a small section of root intrusion; this was unblocked using high pressure jetting to enable our survey to take place.

Surface water Drainage:

The surface water drainage located to the front of the property all drain into a series of catchpits before then discharging into the lake.

The system is in good structural condition; however, our survey did highlight some defects including cracks, fractures, and root ingress (see CCTV report for full details).

Further time on-site would be required to trace and survey the other storm gullies on the property.

Rainwater Drainage:

Not all the rainwater down pipes (RWDP) could be surveyed, due to poor access. This is a common problem as they usually discharge into soakaways with no access.

Further investigation on-site would be required to confirm where they discharge to, this could include cutting them open to provide access.

Recommendations:

- All burns covers should be made accessible for maintenance and unblocking.
- All cast iron pipework should be de-scaled using milling machine.
- IC1 – IC2: Root cutting
- IC5 – BR3: Patch repair due to fracture.
- IC14 – IC12: Root cutting and patch repair.
- Catch-pit-3 – Lake: Jetting & Root cutting to restore full flow.

Budget Cost for Above Works: £7K-£10K + VAT

I trust the above survey meets your needs, do let me know if you have any further questions.

Kind Regards

John Balzaretti
Jonny's Drains Ltd

Project Pictures:



Burns Plate



Burns Plate



Blocked drains on arrival

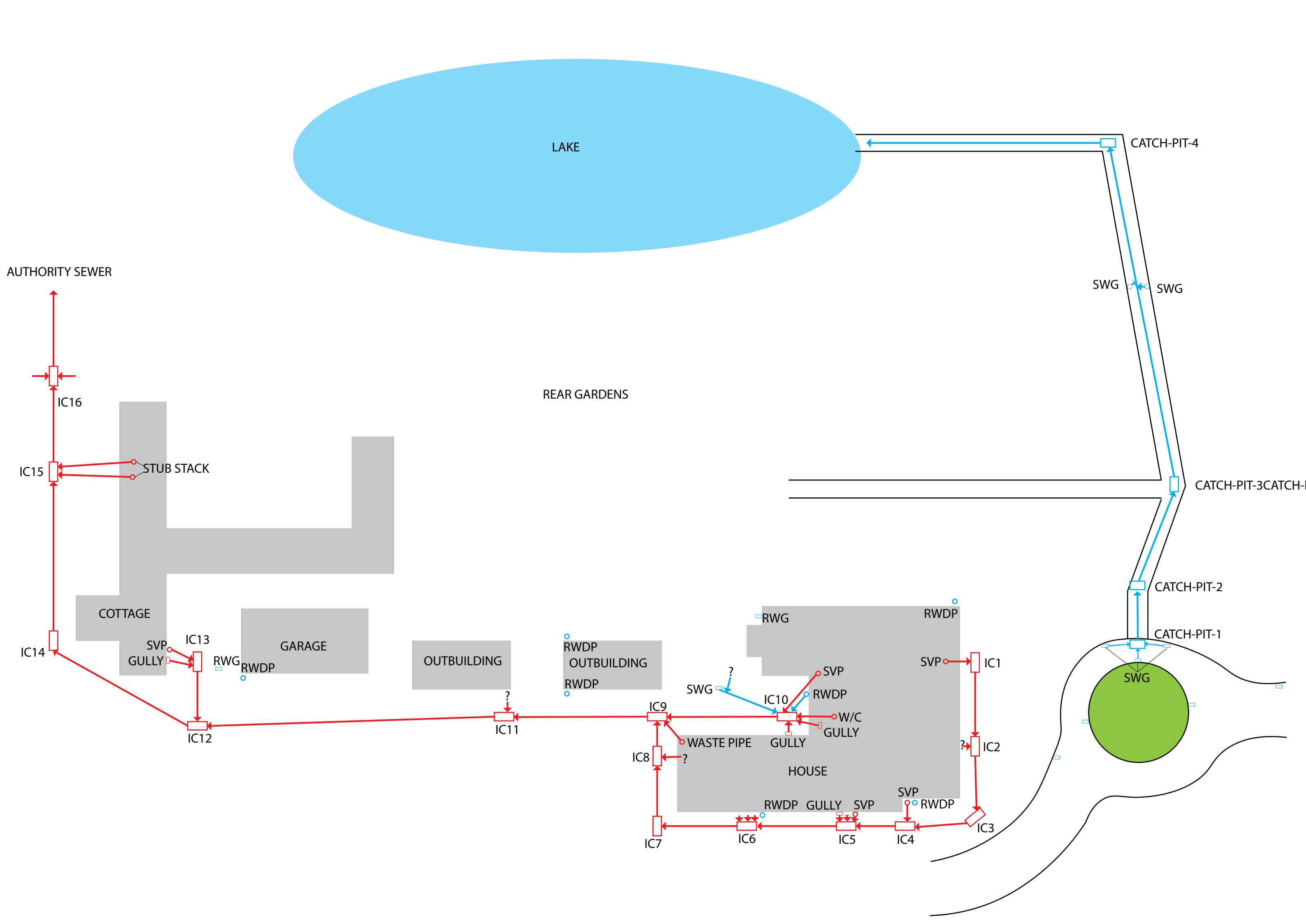




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Jonny's Drains Ltd

Ash Road, Westerham

Tel. 01959 928 853

info@jonnys-drains.co.uk

Project Information

Project Name	Project Number	Project Date
Sunte House, Off Gander Green, Haywards Heath, West Sussex, RH16		21/08/2023

Contractor

Company: Jonny's Drains Ltd
Contact: John Balzaretti
Street: Ash Road
Town or City: Westerham
County: Kent
Post Code: TN16 1EJ
Phone: 01959 928 853
Email: info@jonnys-drains.co.uk



Legend of Classification (Section)

Project Name	Project Number	Project Date
Sunte House, Off Gander Green, Haywards Heath, West Sussex, RH16		21/08/2023

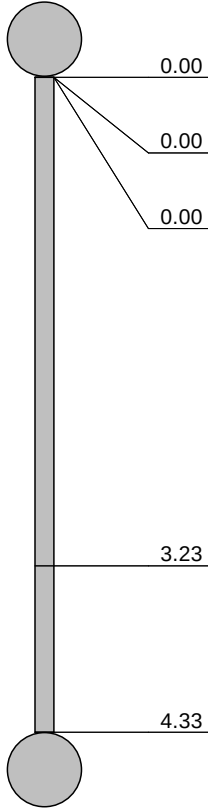
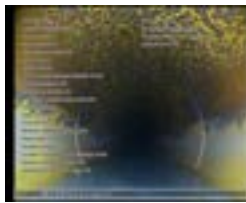
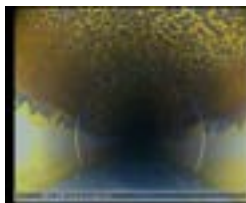
1:	Brick: Minor structural defects. Other: Minor structural defects, i.e. open or displaced joints without additional characteristics. Acceptable structural condition.
2:	Brick: Circumferential cracking. Single longitudinal crack. Surface mortar loss (depth missing < 15 mm). Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Other: Circumferential cracking. Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Minimal collapse likelihood in the short term but potential for further deterioration.
3:	Brick: Total mortar loss (depth missing > 50 mm) without other defects. More than one longitudinal crack (at a single location). Multiple cracking. Single bricks displaced. Deformation < 5%, no fracture and only moderate mortar loss. Surface damage - spalling medium (large areas of chipped brick). Surface damage - wear medium (entire surface of brick is missing). Other: Fracture with no deformation or deformation < 5%. Longitudinal cracking or multiple cracking. Minor loss of level. Severe joint defects i.e. Surface damage - spalling medium. Surface damage - wear medium. Collapse unlikely in the near future but further deterioration likely.
4:	Brick: Total mortar loss (depth missing > 50mm) with deformation > 10%; deformation up to 10% and fractured; displaced or hanging brickwork; small number of missing bricks; dropped invert (drop > 20mm); moderate loss of level; surface damage - large spalling (entire surface of brick is missing); surface damage - large wear (entire surface of brick is missing). Other: Broken; deformation up to 10% and broken; fracture with deformation 5-10%; multiple fractures; serious loss of level; serious joint defects with voids or soil visible (open joint with > 50mm soil or void visible or joint displacement > 25% of diameter); surface damage - entire area of pipe surface is missing or severely worn. Collapse likely in the foreseeable future.
5:	Brick: Already collapsed; missing Invert; deformation > 10% and fractured; displaced or hanging brickwork and deformation < 10%; extensive areas of missing brickwork. Other: Already collapsed; deformation > 10% and broken; extensive areas of pipe fabric missing; fractures with deformation > 10% Collapsed or collapse imminent.

Completed section inspection

Item No. 1	Insp. No. 1	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR1X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR1	
Road:		Inspected Length: 4.33 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 4.33 m		Downstream Node: IC1	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.470 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.47 m IC1 				
	0.00	IC	Start node, inspection chamber, reference: IC1	
	0.00	WL	Water level, 0% of the vertical dimension	
	0.00	DES	Settled deposits, fine, 10% cross-sectional area loss	3
	3.23	LU	Line deviates up	
	4.33	BRF	Finish node, major connection without manhole, reference: BR1: SVP	
   				
				WL - 0.00
				DES - 0.00
				LU - 3.23
				BRF - 4.33

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	0.5	2.0	3.0

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
2	2	21/08/23	9:39	01	No Rain Or Snow	No	IC1X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC1	
Road:		Inspected Length: 3.57 m		Upstream Pipe Depth: 0.470 m	
Location: Under a building		Total Length: 3.57 m		Downstream Node: IC2	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Polyvinyl chloride			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	Grade
Depth: 0.47 m IC1 0.00 0.00 1.48 3.15 3.57 IC2 Depth: 0.00 m					
		0.00	IC	Start node, inspection chamber, reference: IC1	
		0.00	WL	Water level, 0% of the vertical dimension	
		1.48	WL	Water level, 30% of the vertical dimension	
		3.15	RMJ	Roots, mass at joint, 30% cross-sectional area loss	5
		3.57	MHF	Finish node, manhole, reference: IC2	
 WL - 0.00  WL - 1.48  RMJ - 3.15  MHF - 3.57					

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	10.0	2.8	10.0	5.0

Item No. 3	Insp. No. 3	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC3X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction:	Upstream	Upstream Node:	IC3
Road:		Inspected Length:	14.21 m	Upstream Pipe Depth:	0.000 m
Location:	Under a building	Total Length:	14.21 m	Downstream Node:	IC5
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.900 m
Use:	Foul			Pipe Shape:	Circular
Type of Pipe:	Gravity drain/sewer			Dia/Height:	100 mm
Flow Control:	No flow control			Material:	Cast iron
Year Constructed:	Not Specified			Lining Type:	No Lining
Inspection Purpose:	Routine inspection			Lining Material:	No Lining

Recommendations:





Completed section inspection

Item No. 3	Insp. No. 3	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC3X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified



ICF - 14.21

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	2.1	30.0	3.0

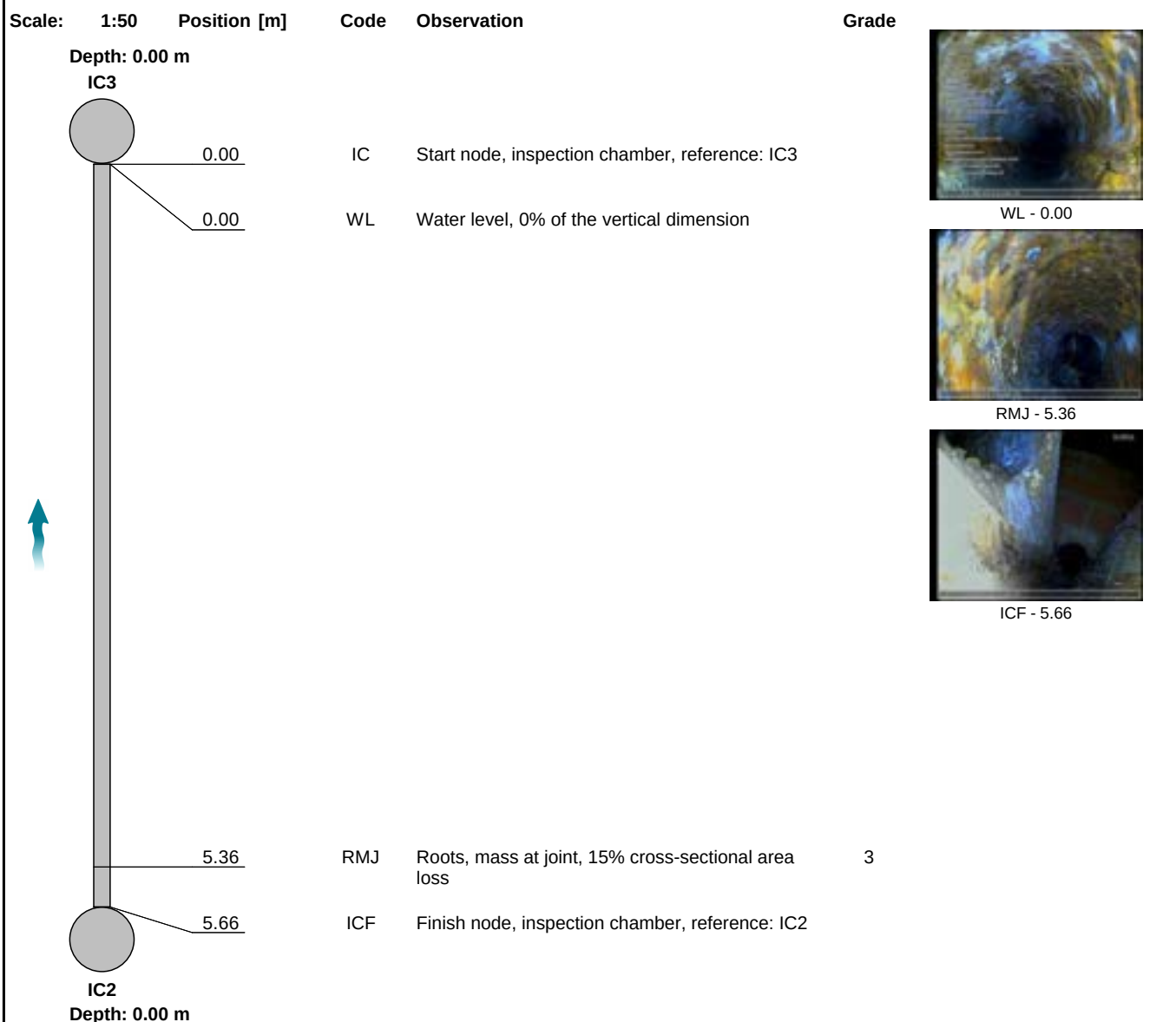
Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	4	21/08/23	9:39	01	No Rain Or Snow	No	IC2X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: IC2	
Road:		Inspected Length: 5.66 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 5.66 m		Downstream Node: IC3	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:

Recommendations:

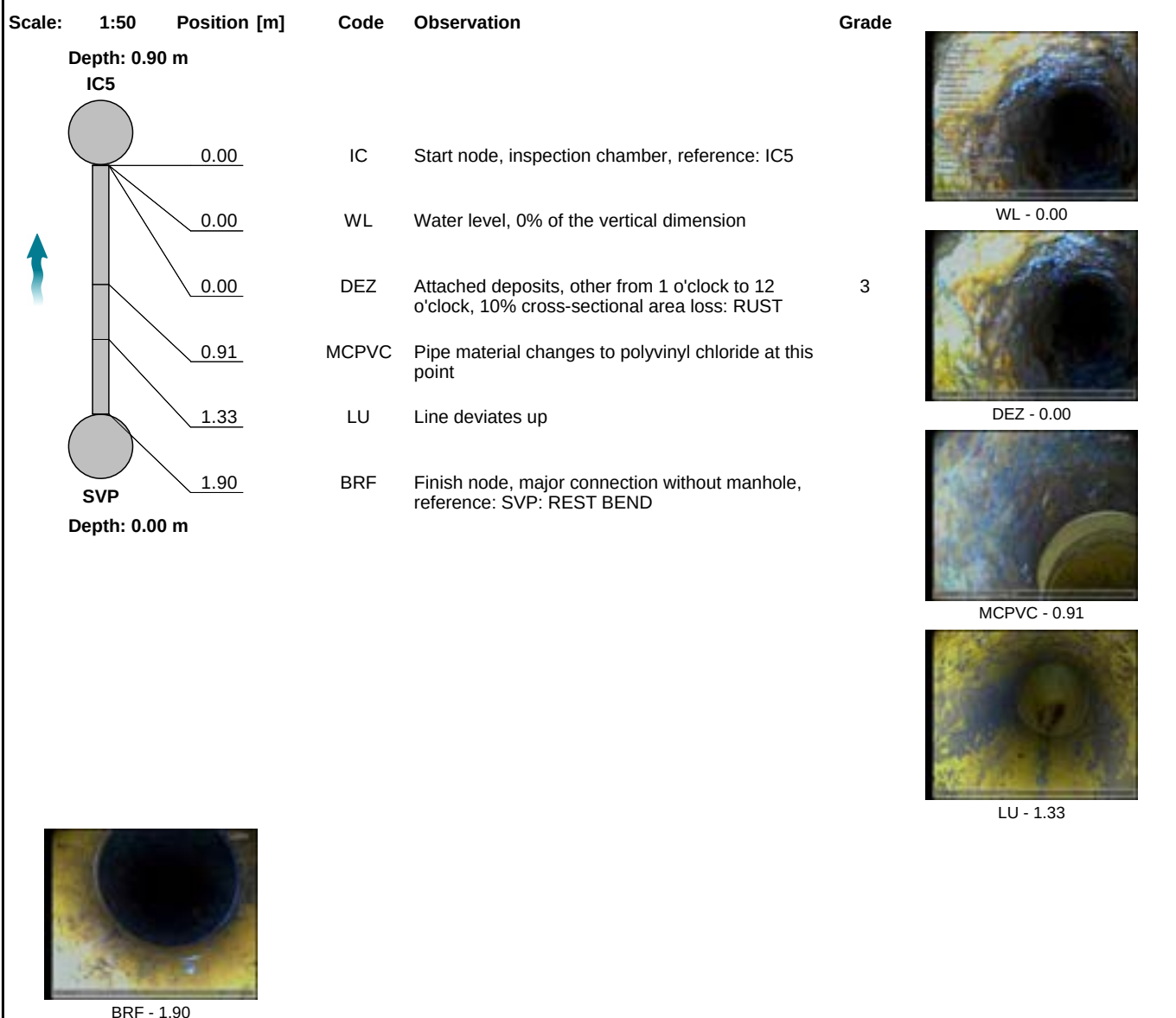


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	4.0	0.7	4.0	3.0

Item No. 5	Insp. No. 5	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR SVPX
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction:	Upstream	Upstream Node:	SVP
Road:		Inspected Length:	1.90 m	Upstream Pipe Depth:	0.000 m
Location:	Under a building	Total Length:	1.90 m	Downstream Node:	IC5
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.900 m
Use:	Foul			Pipe Shape:	Circular
Type of Pipe:	Gravity drain/sewer			Dia/Height:	100 mm
Flow Control:	No flow control			Material:	Cast iron
Year Constructed:	Not Specified			Lining Type:	No Lining
Inspection Purpose:	Routine inspection			Lining Material:	No Lining

Recommendations:



STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	1.1	2.0	3.0

Abandoned section inspection

Item No. 6	Insp. No. 6	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR2	
Road:		Inspected Length: 1.10 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 1.10 m		Downstream Node: IC5	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.900 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Cast iron			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.90 m IC5  0.00 0.00 1.10 ↑				
	0.00	IC	Start node, inspection chamber, reference: IC5	
	0.00	WL	Water level, 0% of the vertical dimension	
	1.10	SA	Survey abandoned: RUBBLE/DEBRIS	
				 WL - 0.00
				 SA - 1.10

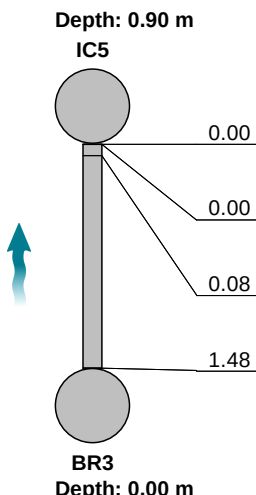
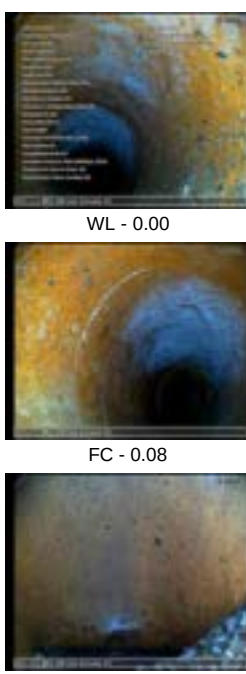
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	7	21/08/23	9:39	01	No Rain Or Snow	No	BR3X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR3	
Road:		Inspected Length: 1.48 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 1.48 m		Downstream Node: IC5	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.900 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:
Recommendations:

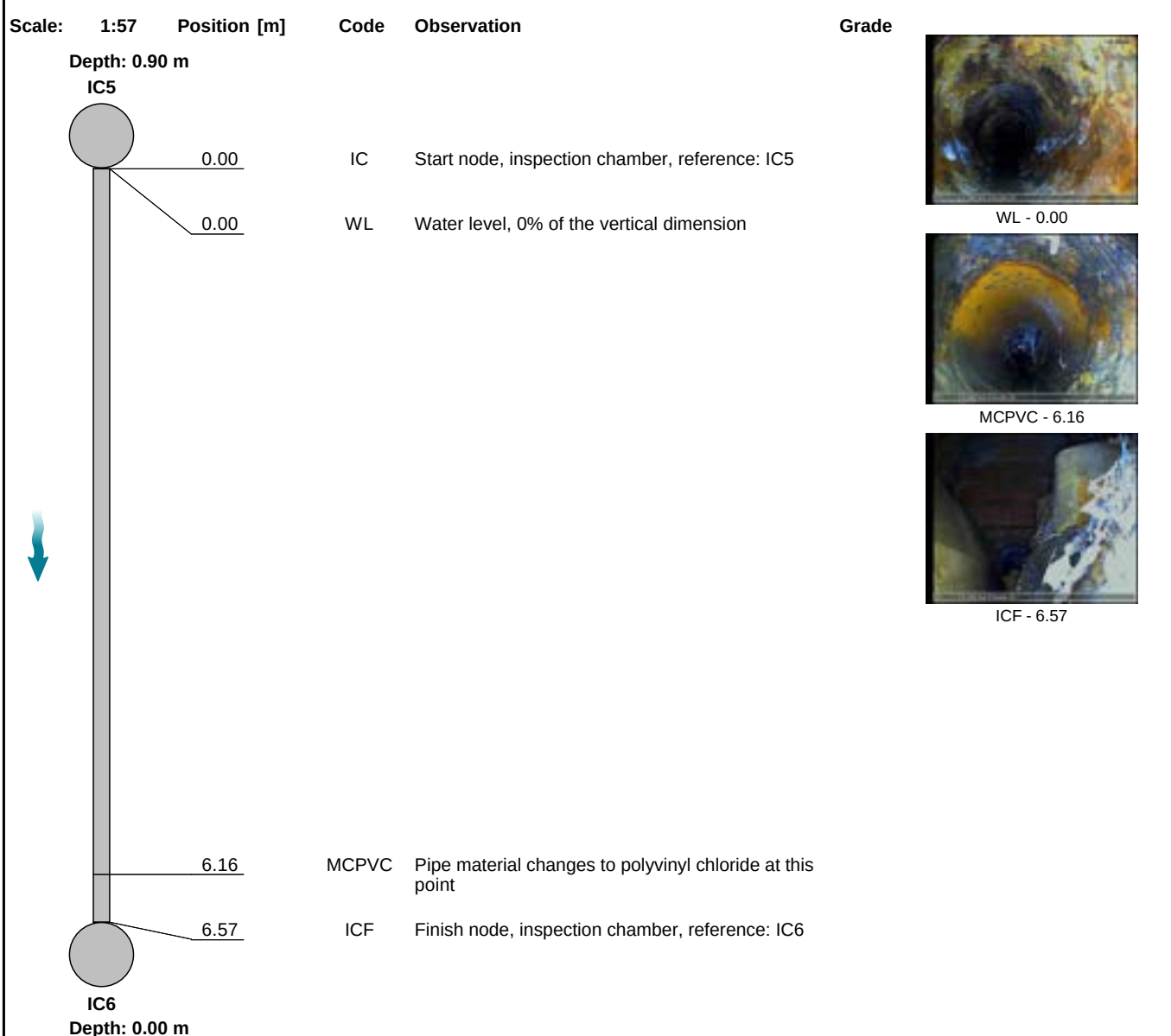
Scale: 1:50	Position [m]	Code	Observation	Grade
				
	0.00	IC	Start node, inspection chamber, reference: IC5	
	0.00	WL	Water level, 0% of the vertical dimension	
	0.08	FC	Fracture, circumferential from 1 o'clock to 12 o'clock	3 / 2
	1.48	GYF	Finish node, gully, reference: BR3: GULLY	
				

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	40.0	27.0	40.0	3.0	1	1.0	0.7	1.0	2.0

Completed section inspection

Item No. 8	Insp. No. 8	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC5X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC5	
Road:		Inspected Length: 6.57 m		Upstream Pipe Depth: 0.900 m	
Location: Under a building		Total Length: 6.57 m		Downstream Node: IC6	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 9	Insp. No. 9	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR1X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR1	
Road:		Inspected Length: 3.61 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 3.61 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.83 m IC10 0.00 0.00 1.79 3.61 BR1 Depth: 0.00 m				
	0.00	IC	Start node, inspection chamber, reference: IC10	
	0.00	WL	Water level, 0% of the vertical dimension	
	1.79	LR	Line deviates right	
	3.61	GYF	Finish node, gully, reference: BR1: GULLY?	



WL - 0.00



LR - 1.79



GYF - 3.61

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 10	Insp. No. 10	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR2	
Road:		Inspected Length: 0.19 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 0.19 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Polyvinyl chloride			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.83 m IC10 0.00 IC Start node, inspection chamber, reference: IC10				
0.00 WL Water level, 0% of the vertical dimension				
BR2 0.19 GYF Finish node, gully, reference: BR2				
Depth: 0.00 m				



WL - 0.00



GYF - 0.19

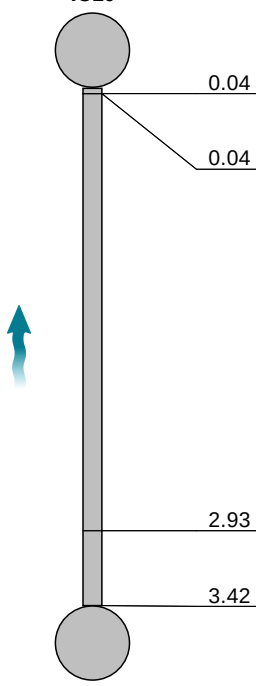
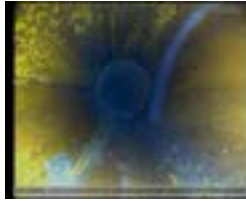
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 11	Insp. No. 11	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR3X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR3	
Road:		Inspected Length: 3.42 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 3.42 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
				
Depth: 0.83 m IC10				
0.04	IC	Start node, inspection chamber, reference: IC10		
0.04	WL	Water level, 0% of the vertical dimension		WL - 0.04
				
				LU - 2.93
2.93	LU	Line deviates up		
3.42	BRF	Finish node, major connection without manhole, reference: BR3: SVP		
				BRF - 3.42
BR3 Depth: 0.00 m				

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

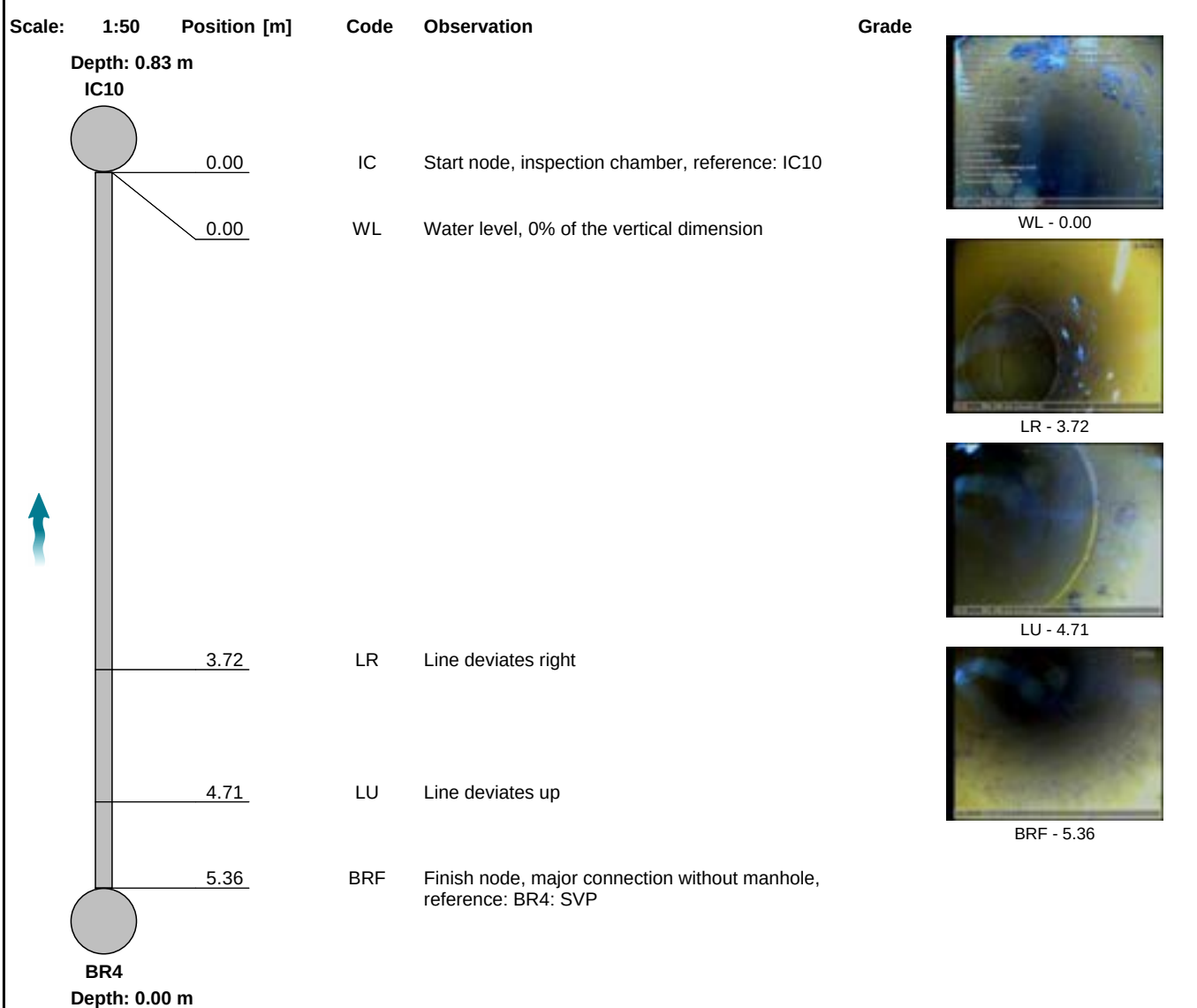
Completed section inspection

Item No. 12	Insp. No. 12	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR4X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR4	
Road:		Inspected Length: 5.36 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 5.36 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:

Recommendations:

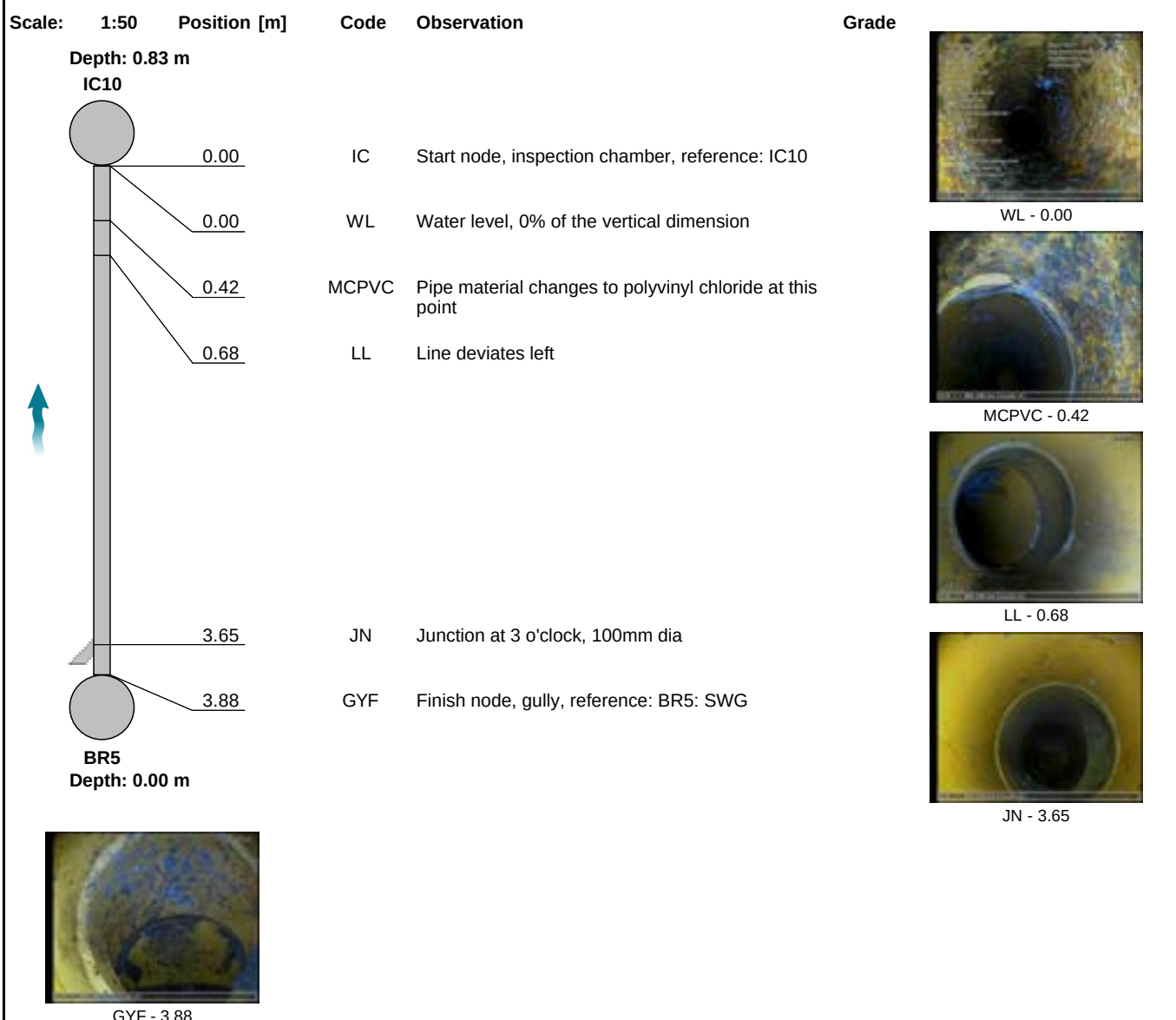


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 13	Insp. No. 13	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR5X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR5	
Road:		Inspected Length: 3.88 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 3.88 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

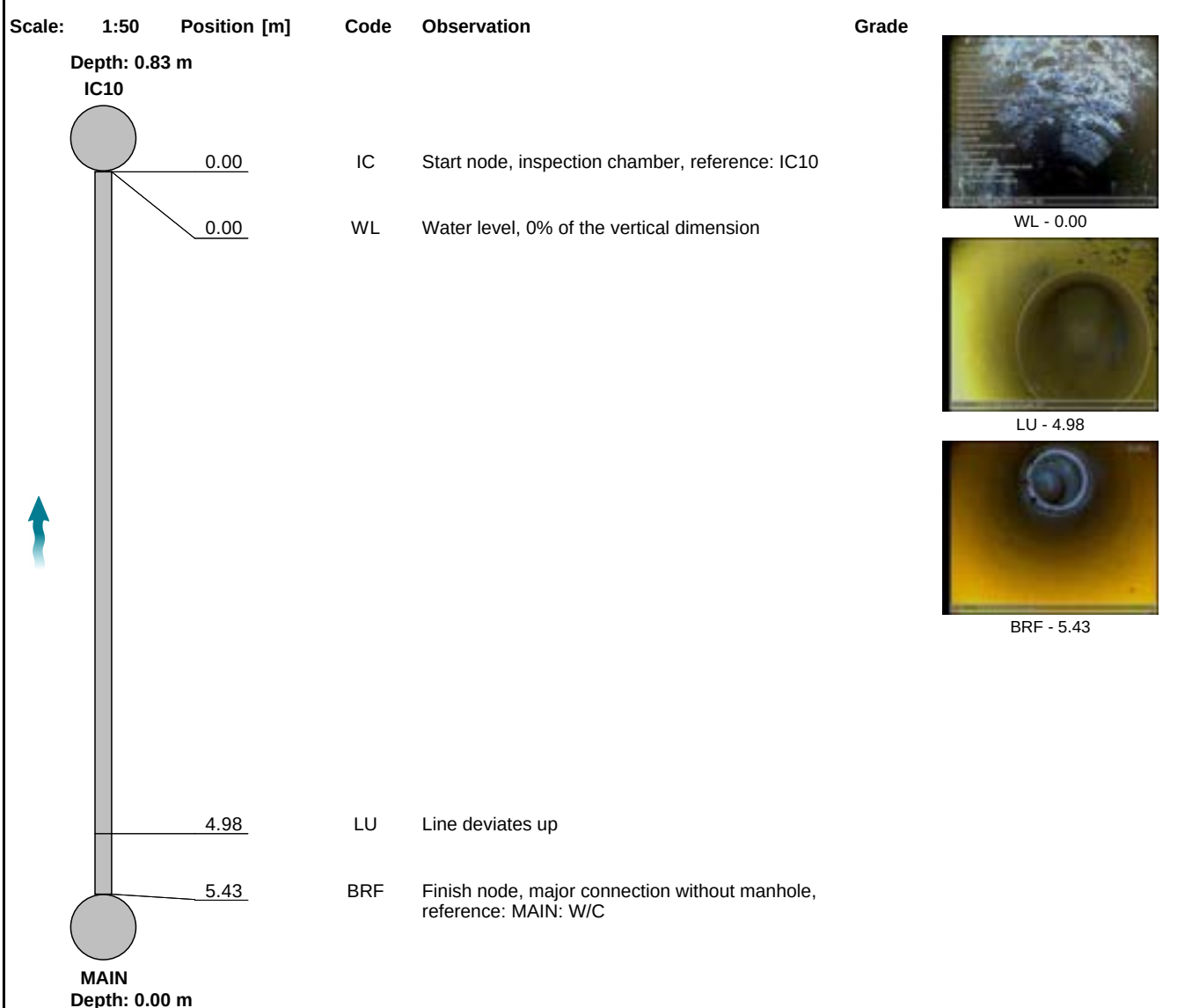
Completed section inspection

Item No. 14	Insp. No. 14	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR MAINX
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: MAIN	
Road:		Inspected Length: 5.43 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 5.43 m		Downstream Node: IC10	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.830 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:

Recommendations:



STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

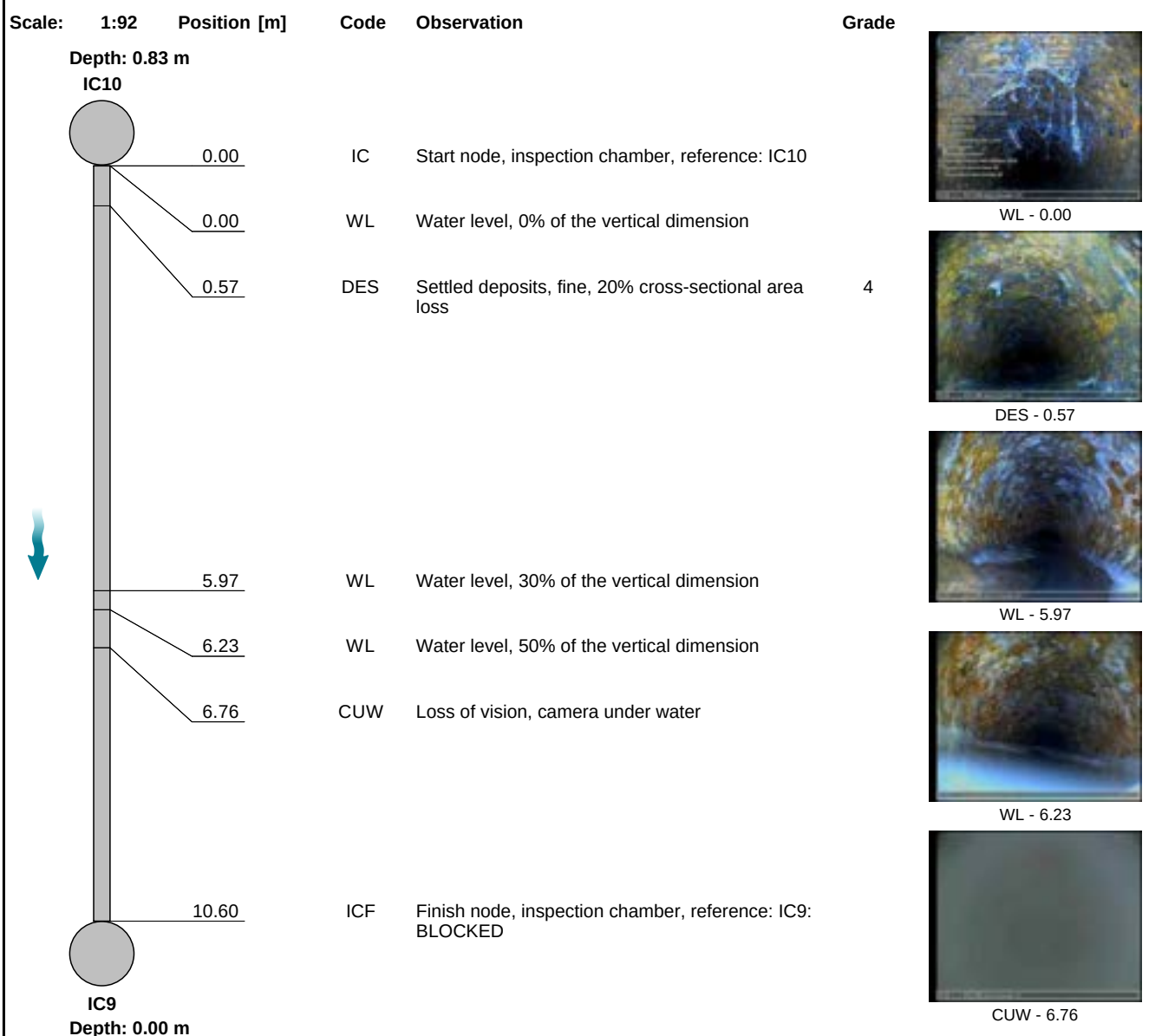
Completed section inspection

Item No. 15	Insp. No. 15	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC10X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC10	
Road:		Inspected Length: 10.60 m		Upstream Pipe Depth: 0.830 m	
Location: Under a building		Total Length: 10.60 m		Downstream Node: IC9	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:

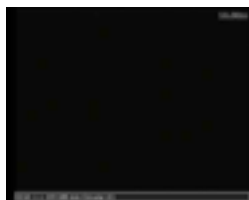
Recommendations:





Completed section inspection

Item No. 15	Insp. No. 15	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC10X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified



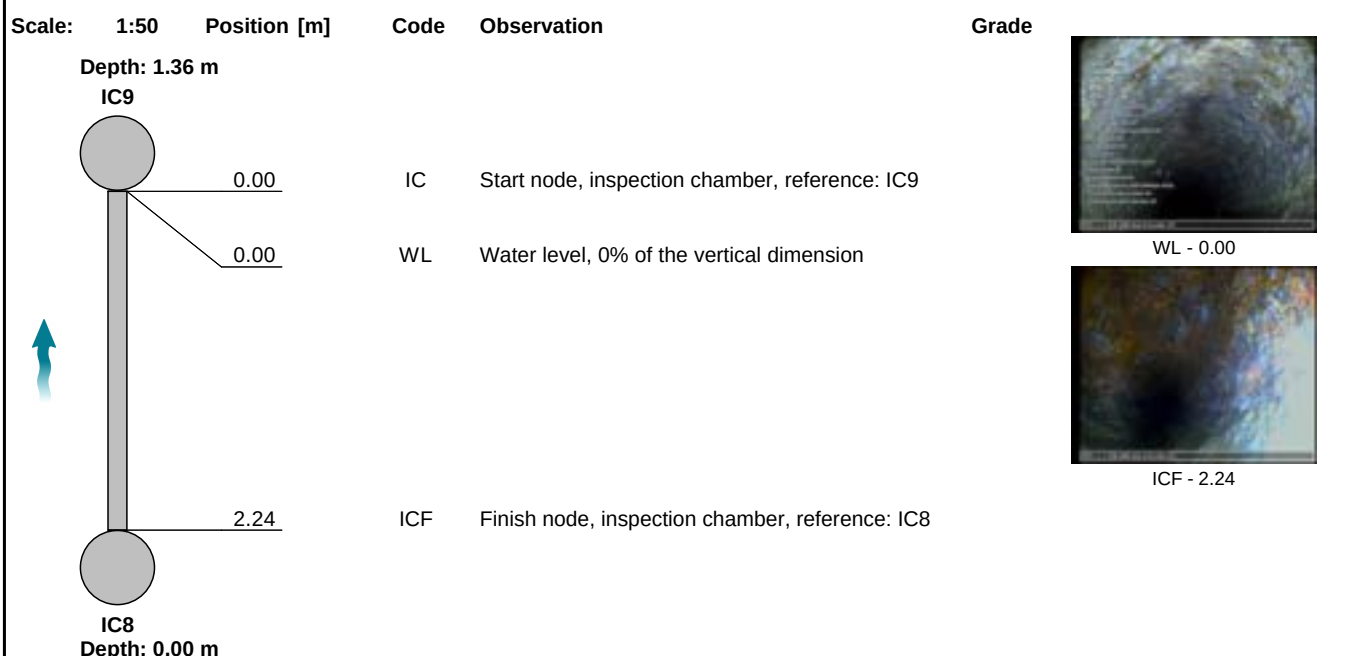
ICF - 10.60

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	0.5	5.0	4.0

Completed section inspection

Item No. 16	Insp. No. 16	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC8X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: IC8	
Road:		Inspected Length: 2.24 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 2.24 m		Downstream Node: IC9	
Surface Type:		Joint Length:		Downstream Pipe Depth: 1.360 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:


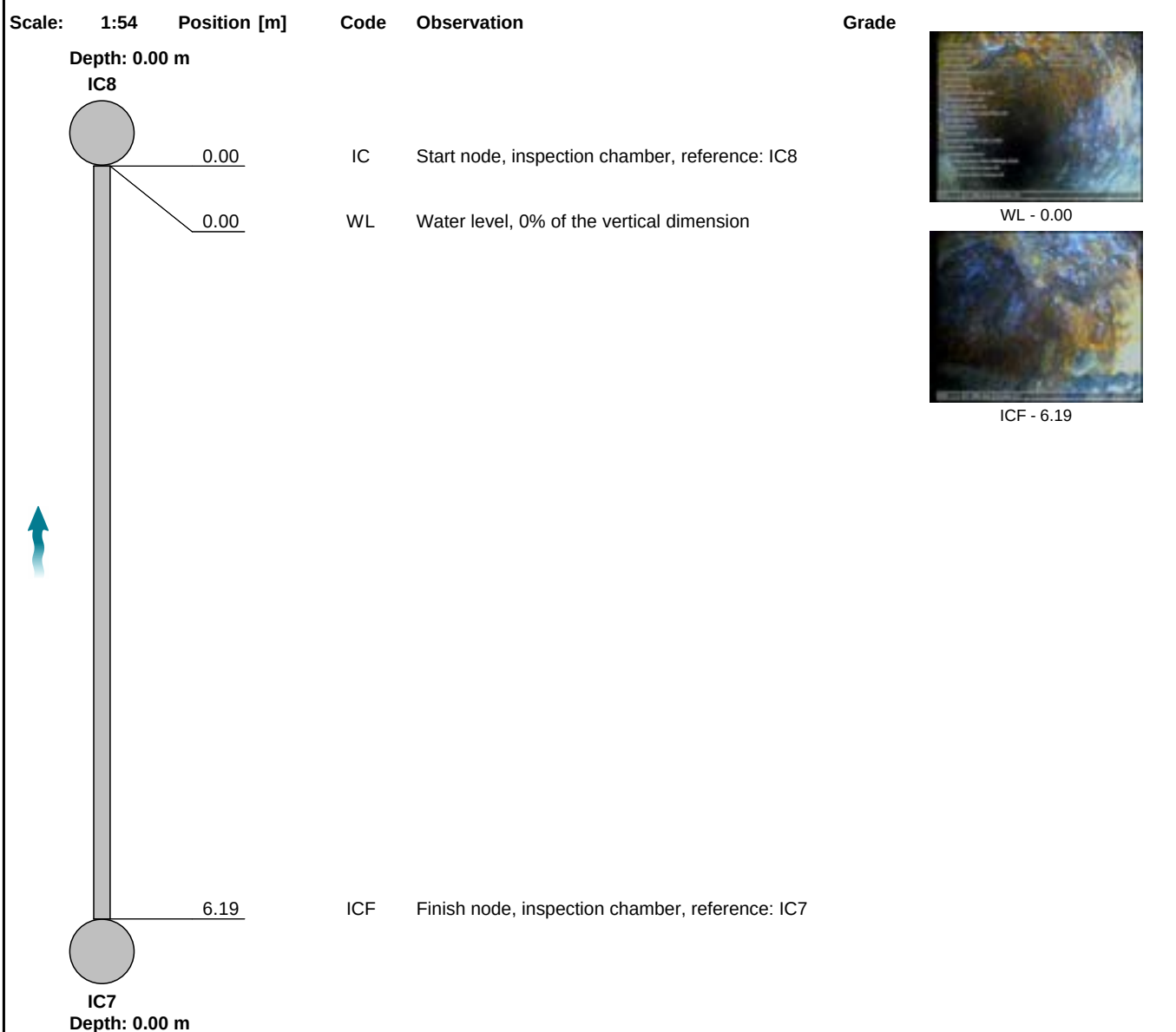
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0



Completed section inspection

Item No. 17	Insp. No. 17	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC7X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: IC7	
Road:		Inspected Length: 6.19 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 6.19 m		Downstream Node: IC8	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

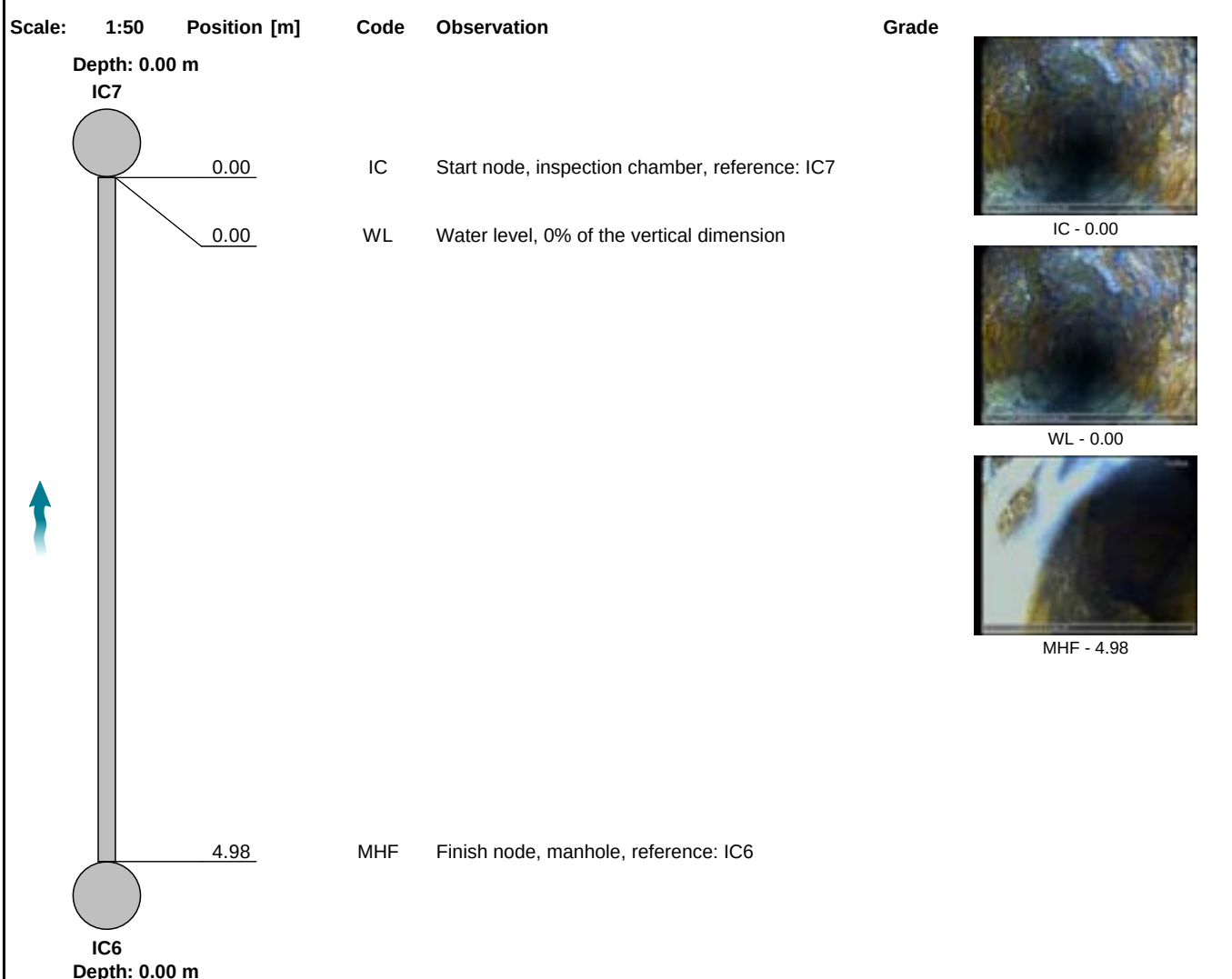
Comments:**Recommendations:**

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 18	Insp. No. 18	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC6X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: IC6	
Road:		Inspected Length: 4.98 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 4.98 m		Downstream Node: IC7	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

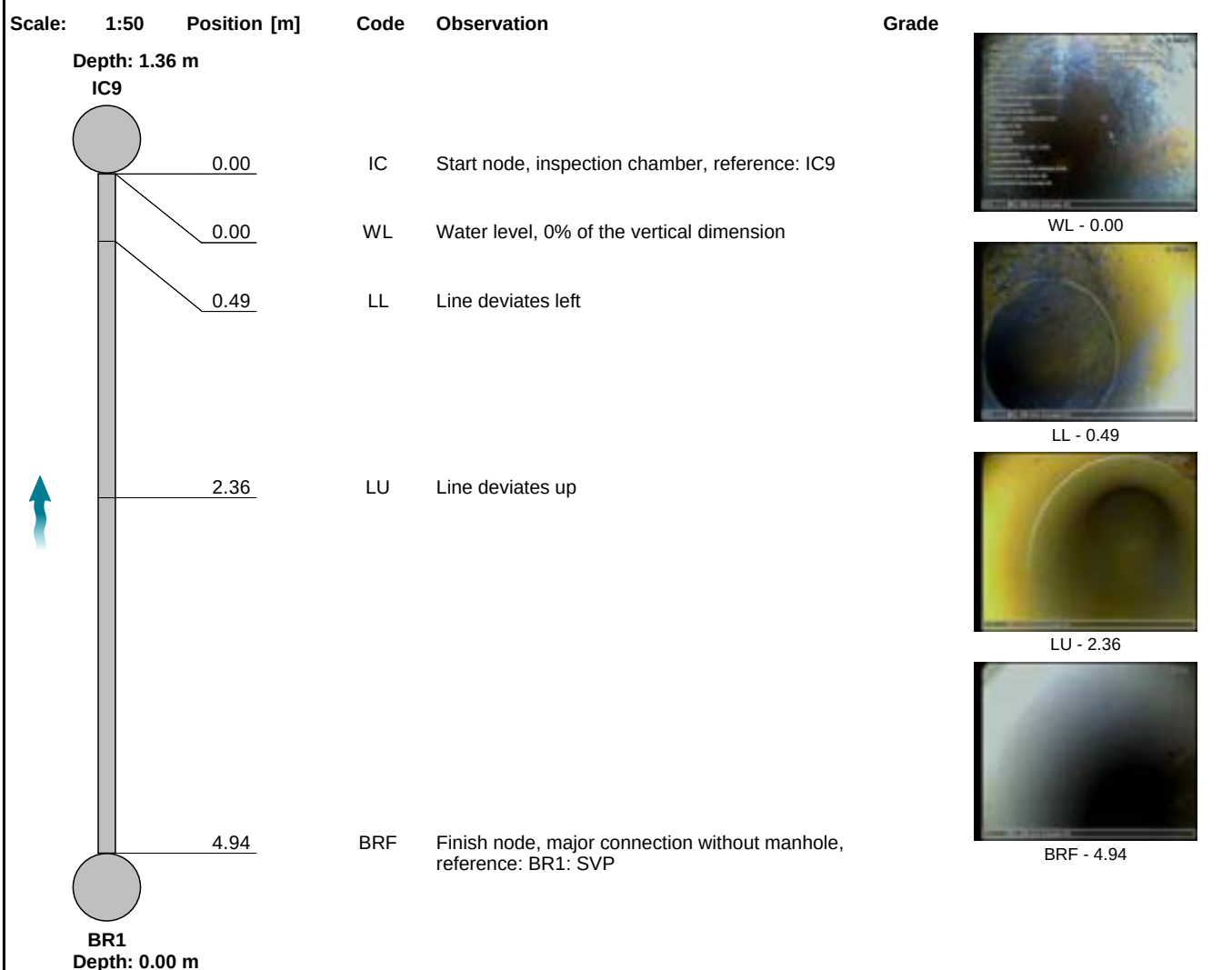
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 19	Insp. No. 19	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR1X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR1	
Road:		Inspected Length: 4.94 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 4.94 m		Downstream Node: IC9	
Surface Type:		Joint Length:		Downstream Pipe Depth: 1.360 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

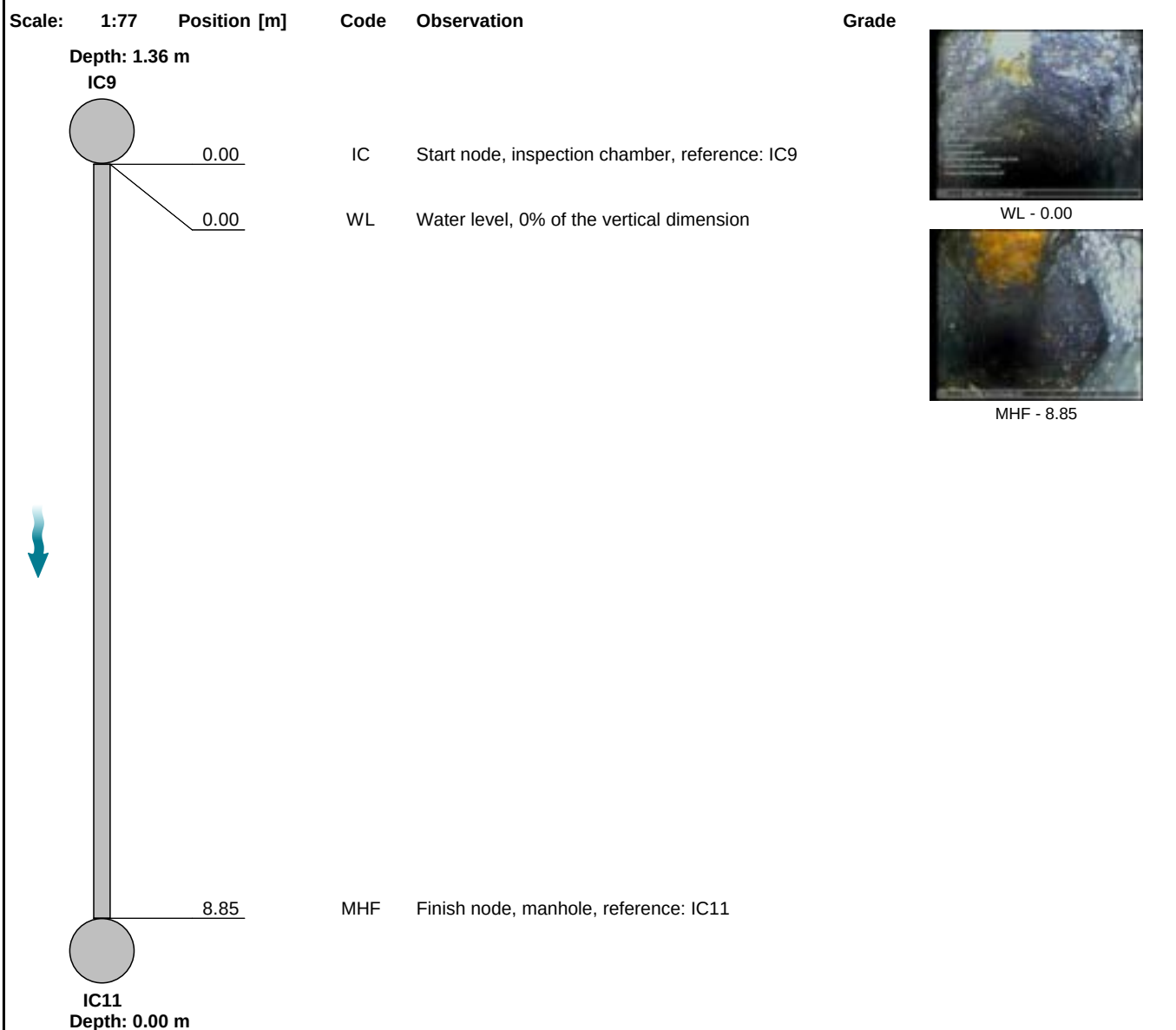
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 20	Insp. No. 20	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC9X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC9	
Road:		Inspected Length: 8.85 m		Upstream Pipe Depth: 1.360 m	
Location: Under a building		Total Length: 8.85 m		Downstream Node: IC11	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

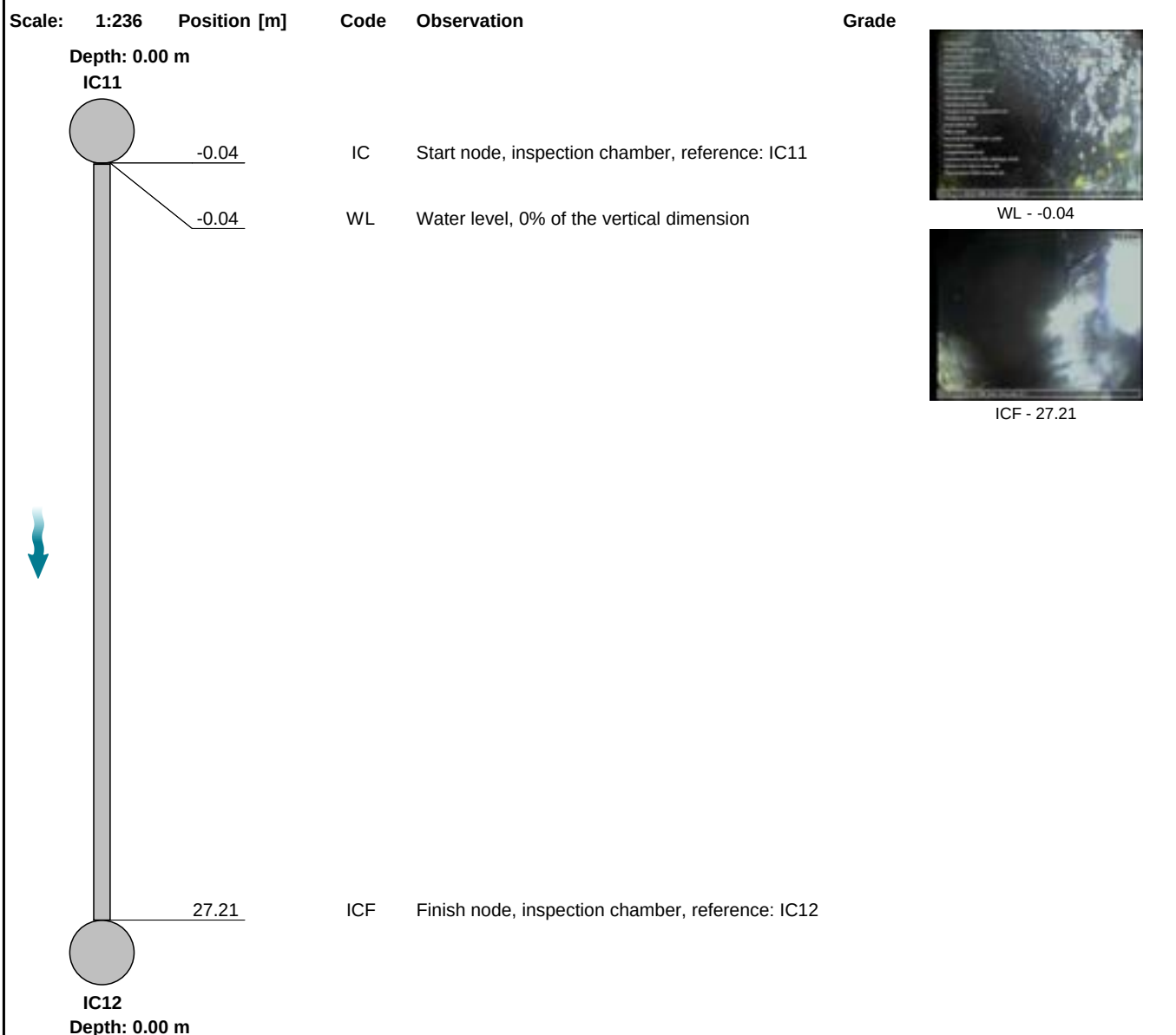
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
21	21	21/08/23	9:39	01	No Rain Or Snow	No	IC11X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC11	
Road:		Inspected Length: 27.21 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 27.21 m		Downstream Node: IC12	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Cast iron	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

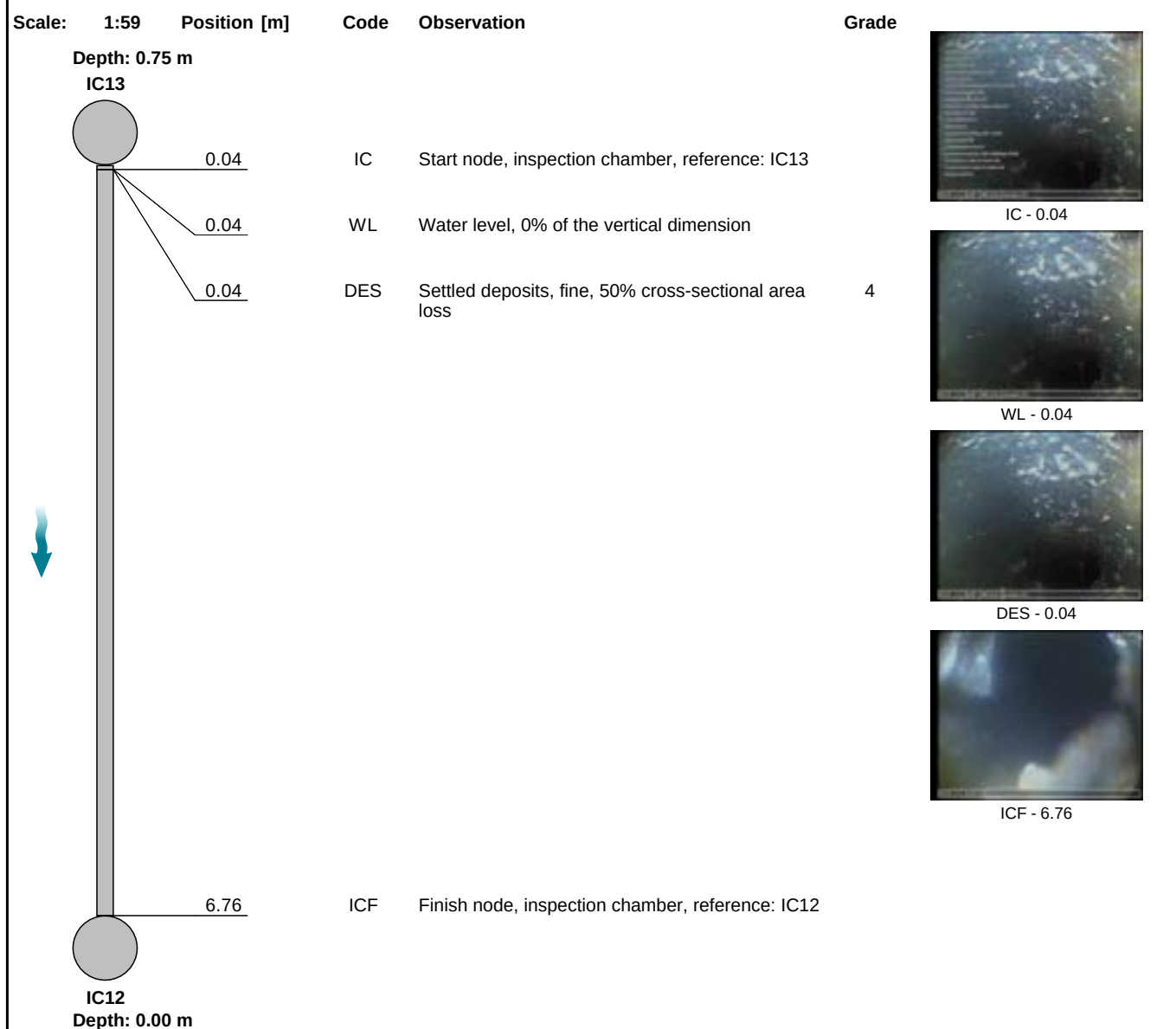
Completed section inspection

Item No. 22	Insp. No. 22	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC13X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC13	
Road:		Inspected Length: 6.76 m		Upstream Pipe Depth: 0.750 m	
Location: Under a building		Total Length: 6.76 m		Downstream Node: IC12	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Unidentified material			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:

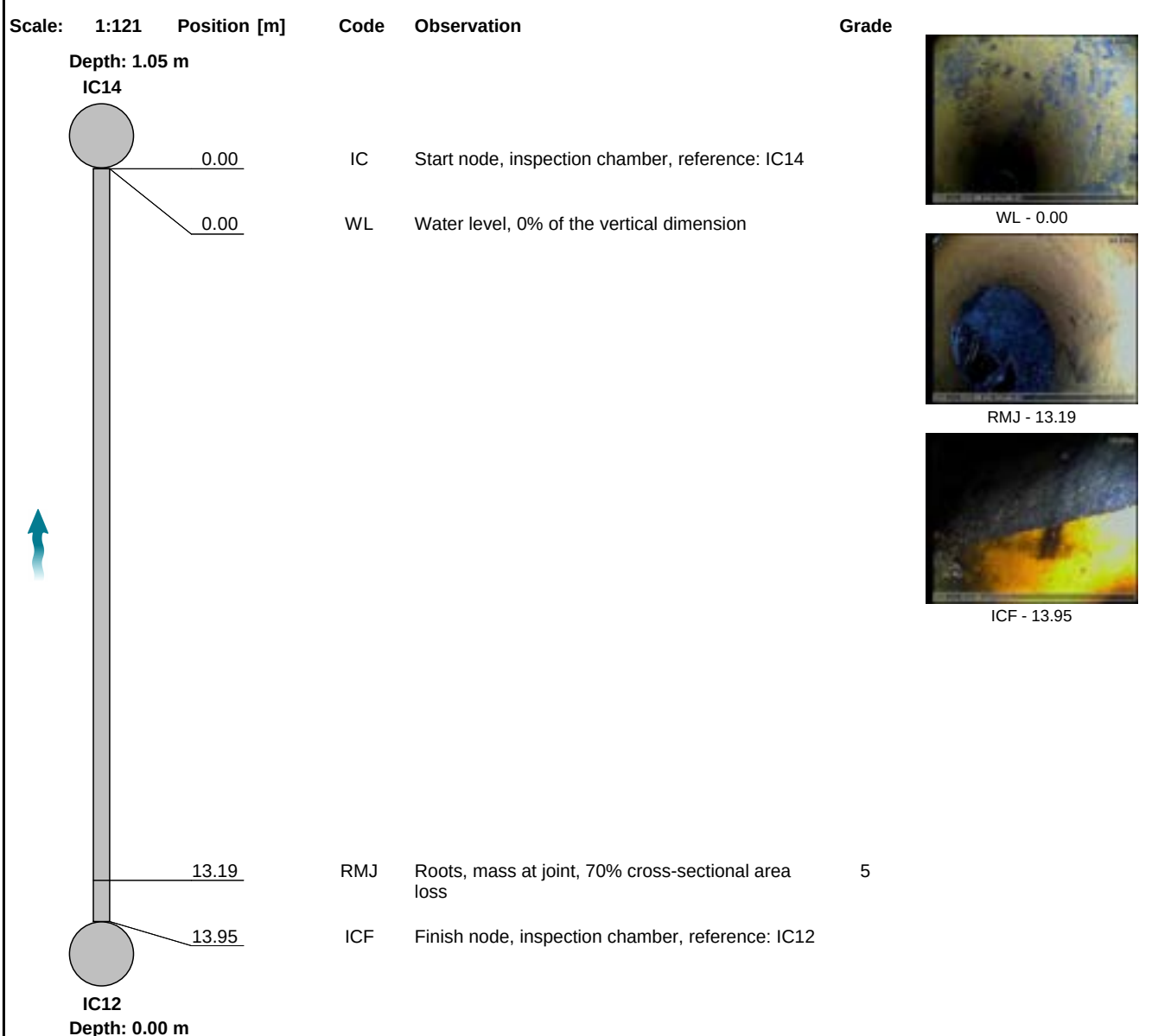


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	8.0	1.2	8.0	4.0

Completed section inspection

Item No. 23	Insp. No. 23	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC12X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: IC12	
Road:		Inspected Length: 13.95 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 13.95 m		Downstream Node: IC14	
Surface Type:		Joint Length:		Downstream Pipe Depth: 1.050 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Vitrified clay	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

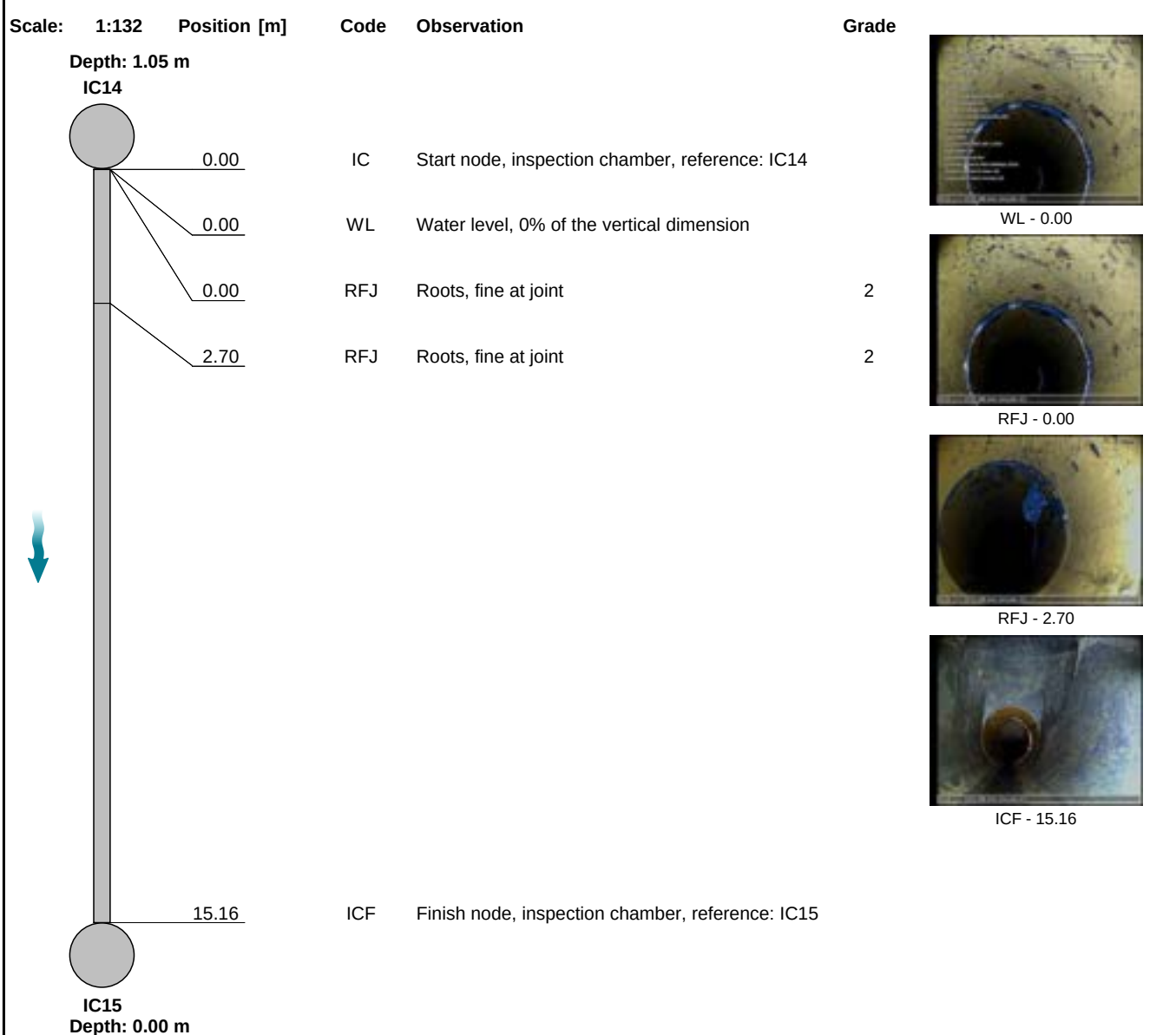
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	15.0	1.1	15.0	5.0

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
24	24	21/08/23	9:39	01	No Rain Or Snow	No	IC14X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC14	
Road:		Inspected Length: 15.16 m		Upstream Pipe Depth: 1.050 m	
Location: Under a building		Total Length: 15.16 m		Downstream Node: IC15	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

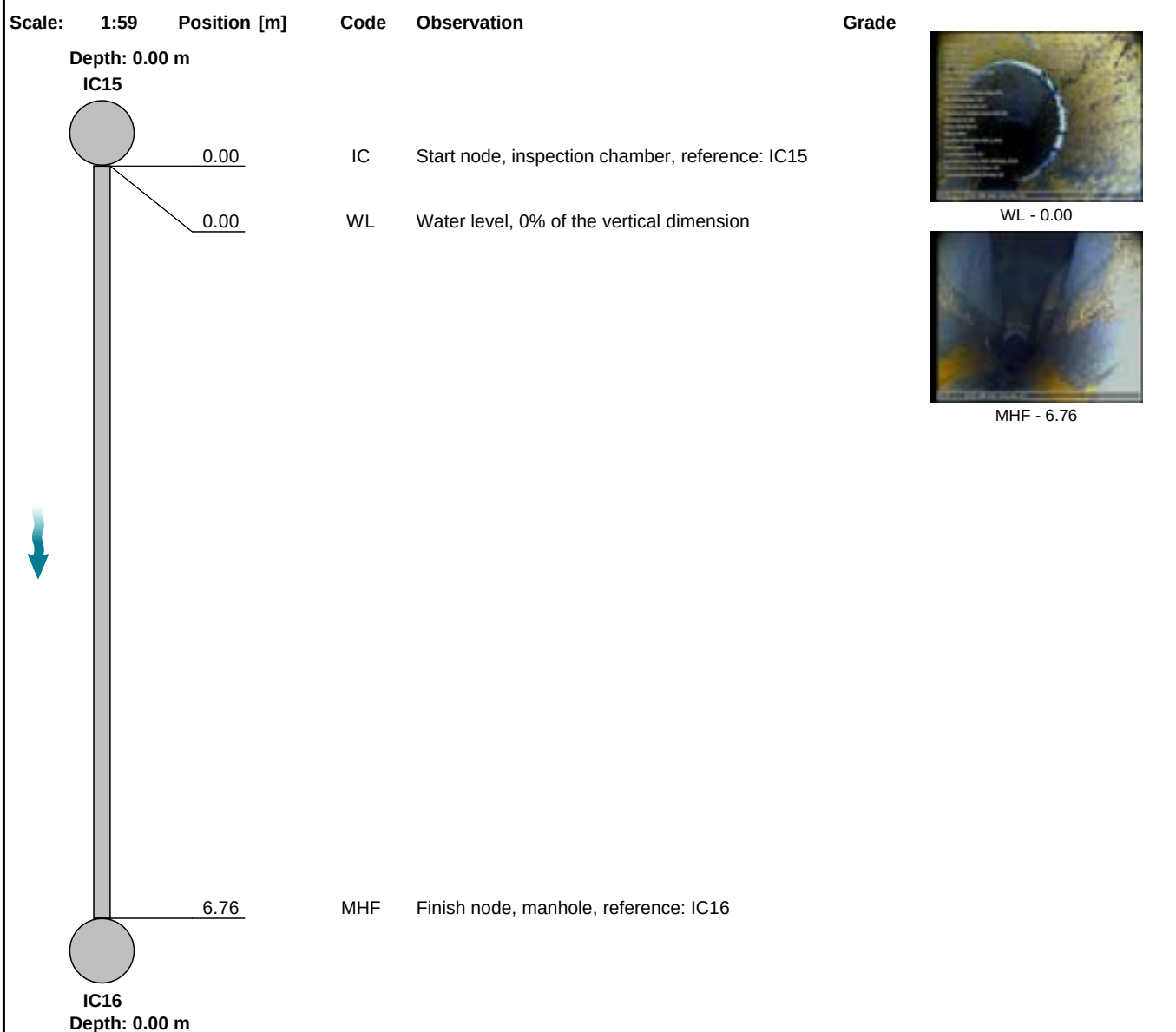
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	1.0	0.1	2.0	2.0

Completed section inspection

Item No. 25	Insp. No. 25	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR IC15X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: IC15	
Road:		Inspected Length: 6.76 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 6.76 m		Downstream Node: IC16	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Vitrified clay	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

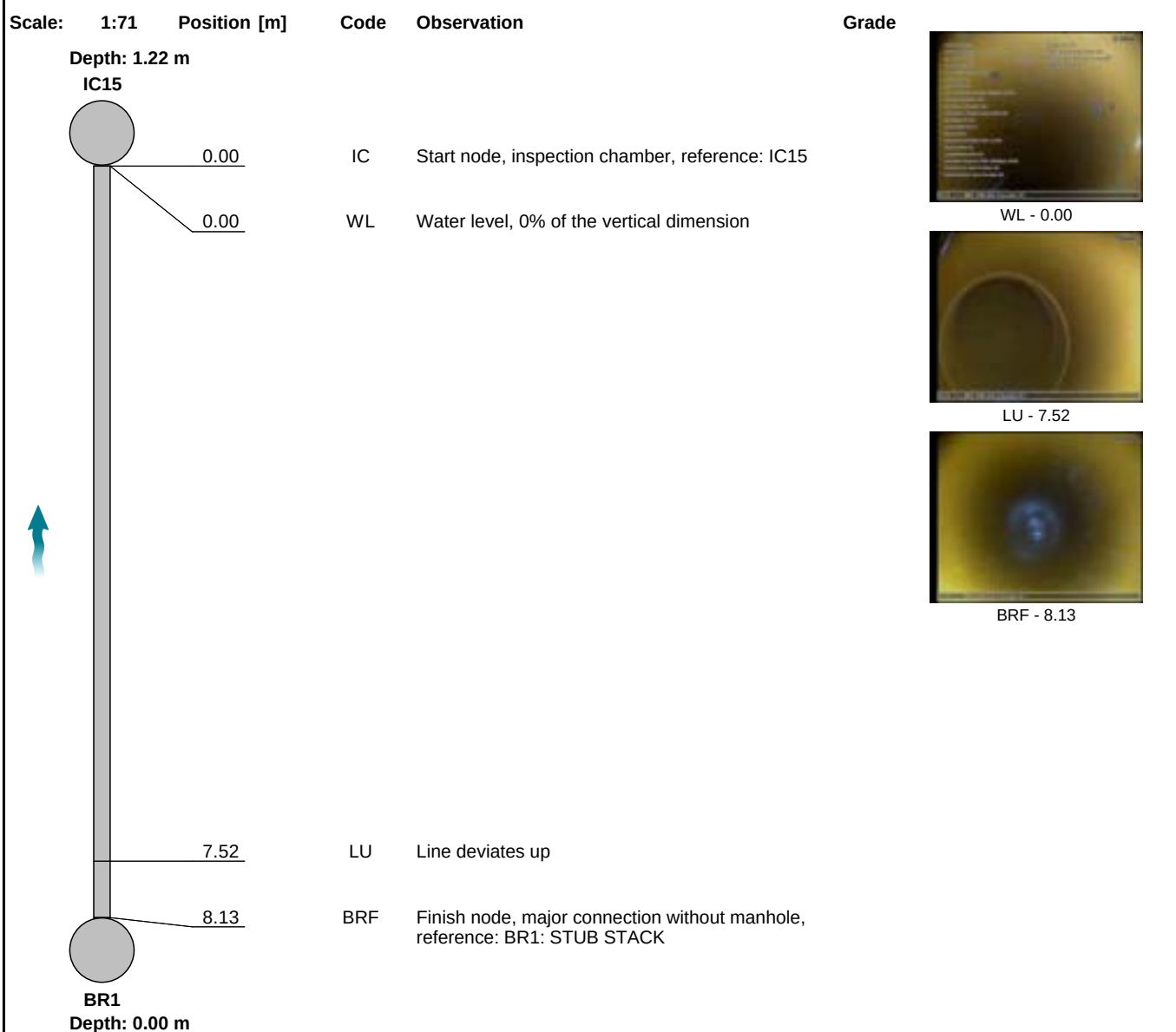
Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 26	Insp. No. 26	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR1X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR1	
Road:		Inspected Length: 8.13 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 8.13 m		Downstream Node: IC15	
Surface Type:		Joint Length:		Downstream Pipe Depth: 1.220 m	
Use:	Foul	Pipe Shape:		Circular	
Type of Pipe:	Gravity drain/sewer	Dia/Height:		100 mm	
Flow Control:	No flow control	Material:		Polyvinyl chloride	
Year Constructed:	Not Specified	Lining Type:		No Lining	
Inspection Purpose:	Routine inspection	Lining Material:		No Lining	

Comments:
Recommendations:


STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

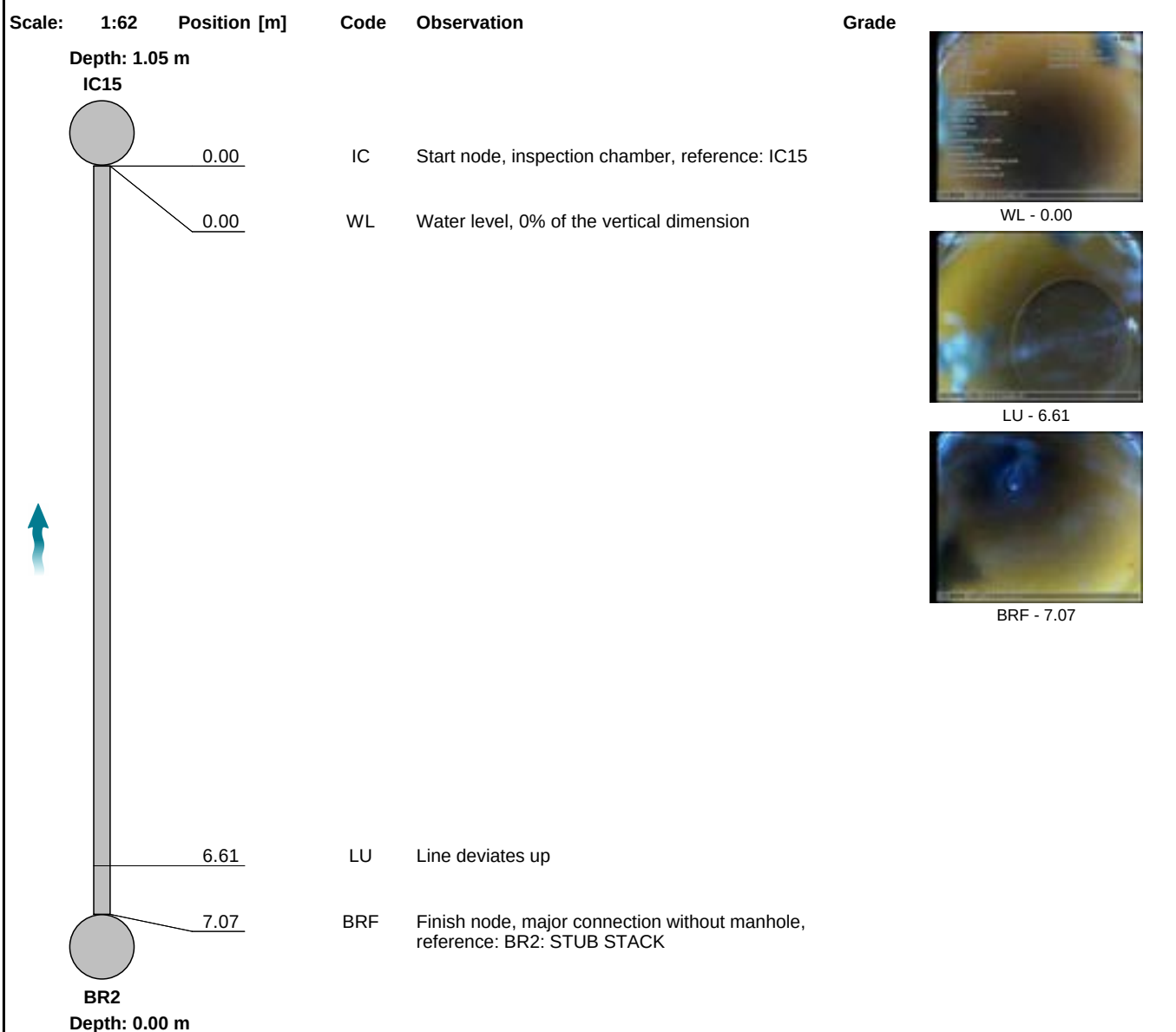
Completed section inspection

Item No. 27	Insp. No. 27	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR2	
Road:		Inspected Length: 7.07 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 7.07 m		Downstream Node: IC15	
Surface Type:		Joint Length:		Downstream Pipe Depth: 1.050 m	
Use: Foul		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Polyvinyl chloride			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:



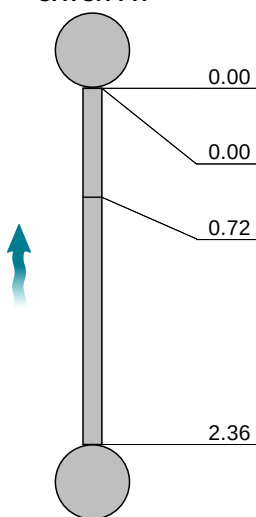
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 28	Insp. No. 28	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR CATCH-PIT2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: CATCH-PIT2	
Road:		Inspected Length: 2.36 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 2.36 m		Downstream Node: CATCH-PIT	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.800 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.80 m CATCH-PIT 				
	0.00	IC	Start node, inspection chamber, reference: CATCH-PIT	
	0.00	WL	Water level, 0% of the vertical dimension	
	0.72	CC	Crack, circumferential from 1 o'clock to 12 o'clock	2 / 2
	2.36	CPF	Finish node, catchpit, reference: CATCH-PIT2: BURIED	
CATCH-PIT2 Depth: 0.00 m				
				 WL - 0.00
				 CC - 0.72
				 CPF - 2.36

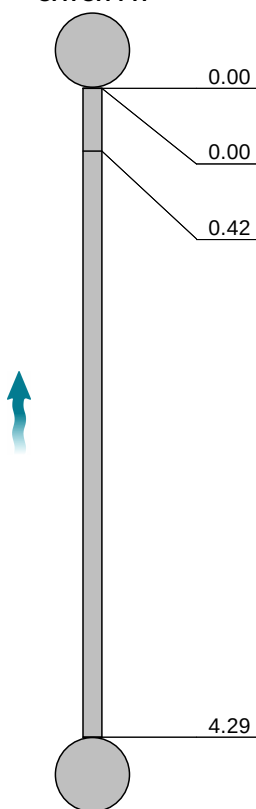
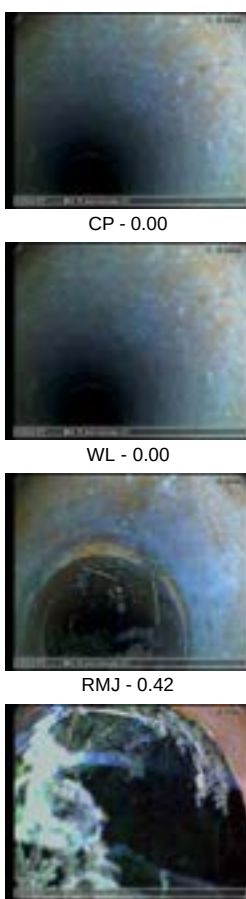
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	10.0	4.2	10.0	2.0	1	1.0	0.4	1.0	2.0

Completed section inspection

Item No. 29	Insp. No. 29	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR2	
Road:		Inspected Length: 4.29 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 4.29 m		Downstream Node: CATCH-PIT	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.800 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 75 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	Grade
Depth: 0.80 m CATCH-PIT 				
0.00	CP	Start node, catchpit, reference: CATCH-PIT		
0.00	WL	Water level, 0% of the vertical dimension		
0.42	RMJ	Roots, mass at joint, 40% cross-sectional area loss	5	
4.29	GYF	Finish node, gully, reference: BR2: GULLY		
BR2 Depth: 0.00 m				
				

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	10.0	2.3	10.0	5.0

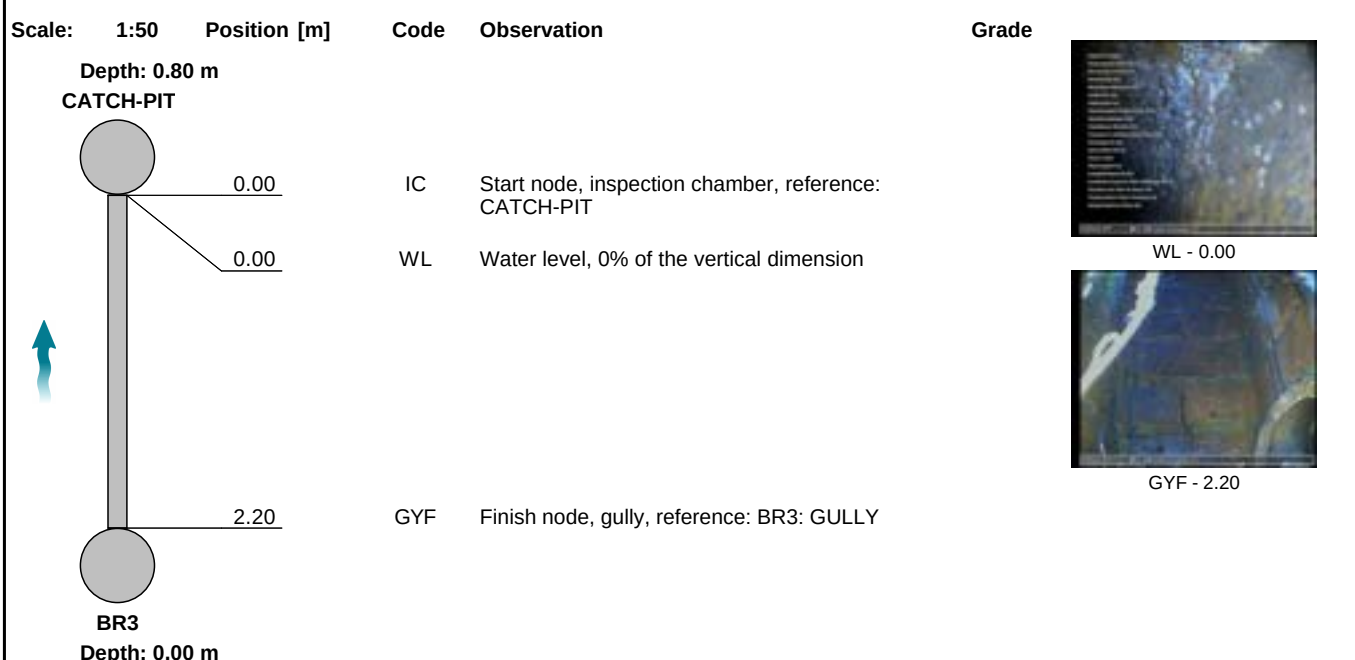
Completed section inspection

Item No. 30	Insp. No. 30	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR BR3X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Upstream		Upstream Node: BR3	
Road:		Inspected Length: 2.20 m		Upstream Pipe Depth: 0.000 m	
Location: Under a building		Total Length: 2.20 m		Downstream Node: CATCH-PIT	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.800 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:



STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

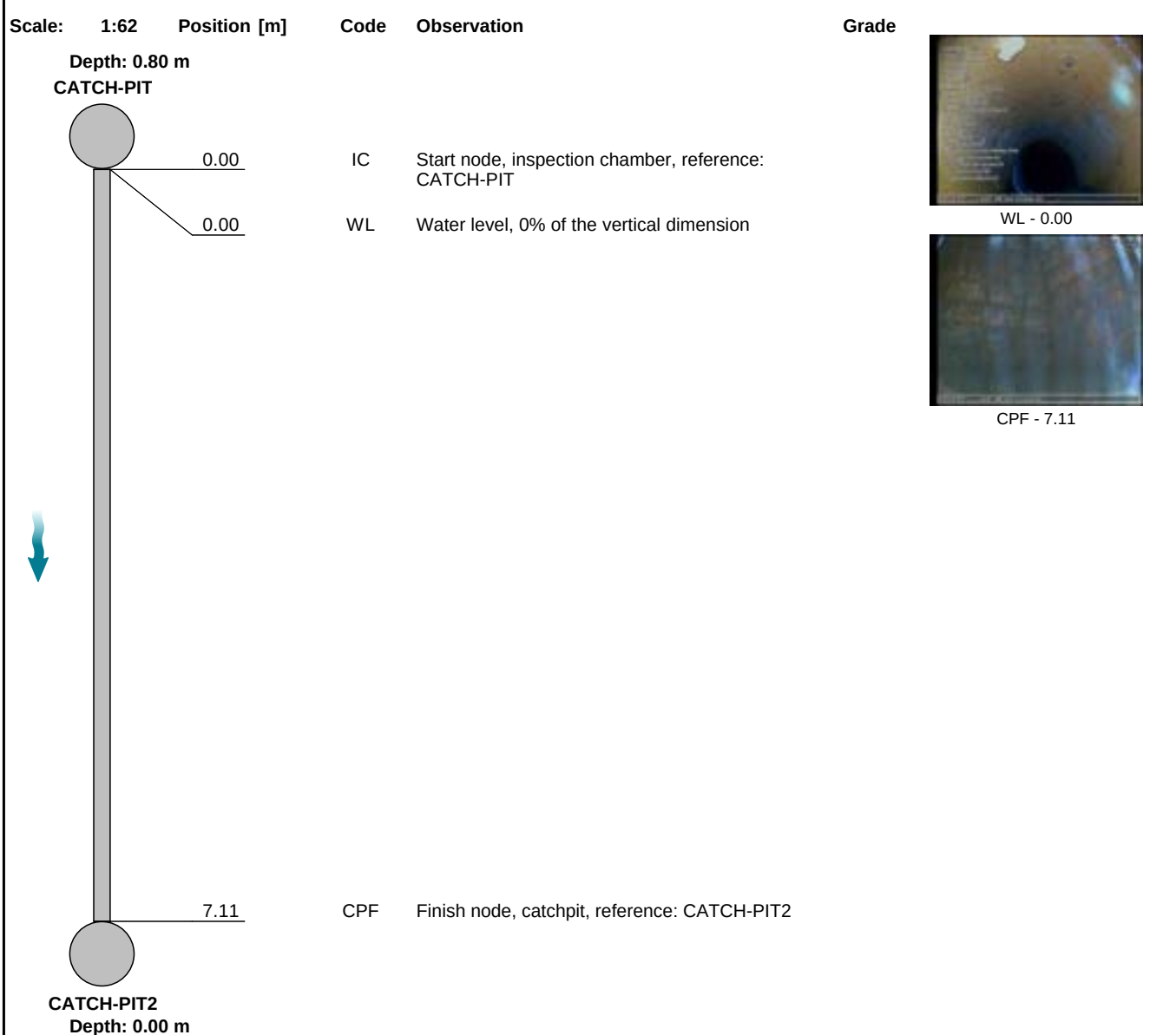
Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
31	31	21/08/23	9:39	01	No Rain Or Snow	No	CATCH-PITX
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: CATCH-PIT	
Road:		Inspected Length: 7.11 m		Upstream Pipe Depth: 0.800 m	
Location: Under a building		Total Length: 7.11 m		Downstream Node: CATCH-PIT2	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:



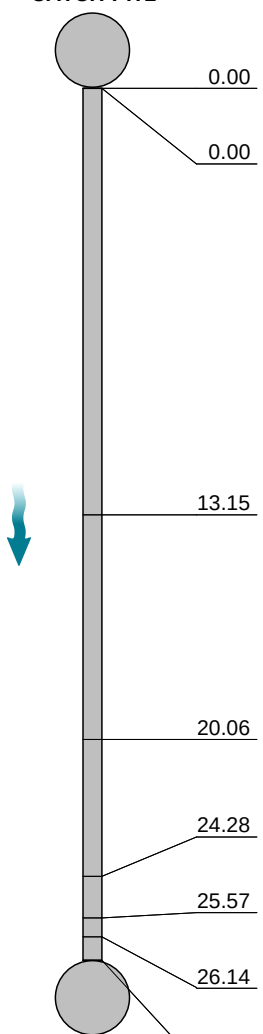
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Completed section inspection

Item No. 32	Insp. No. 32	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR CATCH-PIT2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: CATCH-PIT2	
Road:		Inspected Length: 26.87 m		Upstream Pipe Depth: 0.730 m	
Location: Under a building		Total Length: 26.87 m		Downstream Node: CATCH-PIT3	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use:	Surface water			Pipe Shape:	Circular
Type of Pipe:	Gravity drain/sewer			Dia/Height:	100 mm
Flow Control:	No flow control			Material:	Vitrified clay
Year Constructed:	Not Specified			Lining Type:	No Lining
Inspection Purpose:	Routine inspection			Lining Material:	No Lining

Comments:
Recommendations:

Scale: 1:233	Position [m]	Code	Observation	Grade
Depth: 0.73 m CATCH-PIT2 				
	0.00	IC	Start node, inspection chamber, reference: CATCH-PIT2	
	0.00	WL	Water level, 0% of the vertical dimension	
	13.15	RFJ	Roots, fine at joint	2
	20.06	CM	Cracks, multiple from 1 o'clock to 12 o'clock	3 / 2
	24.28	CC	Crack, circumferential from 1 o'clock to 3 o'clock	2 / 2
	25.57	RFJ	Roots, fine at joint	2
	26.14	RFJ	Roots, fine at joint	2
	26.87	CPF	Finish node, catchpit, reference: CATCH-PIT3	
CATCH-PIT3 Depth: 0.00 m				



WL - 0.00



RFJ - 13.15



CM - 20.06



CC - 24.28

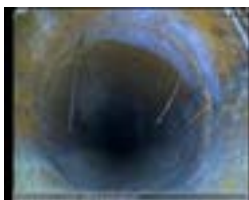


RFJ - 25.57



Completed section inspection

Item No. 32	Insp. No. 32	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR CATCH-PIT2X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified



RFJ - 26.14



CPF - 26.87

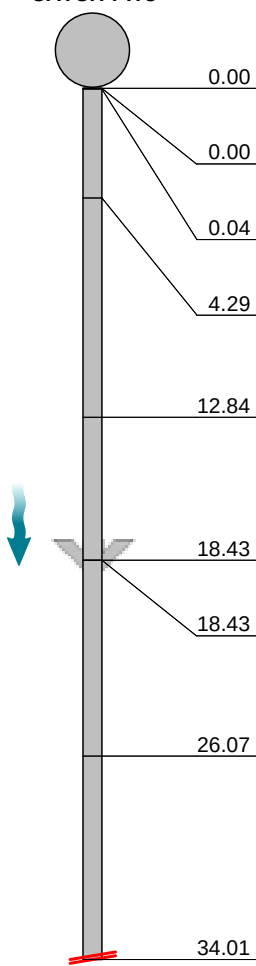
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	40.0	1.9	50.0	3.0	5	1.0	0.2	5.0	2.0

Abandoned section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
33	33	21/08/23	9:39	01	No Rain Or Snow	No	CATCH-PIT3X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: CATCH-PIT3	
Road:		Inspected Length: 34.01 m		Upstream Pipe Depth: 0.730 m	
Location: Under a building		Total Length: 34.01 m		Downstream Node:	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:
Recommendations:

Scale: 1:295	Position [m]	Code	Observation	Grade
Depth: 0.73 m CATCH-PIT3				
				
	0.00	CP	Start node, catchpit, reference: CATCH-PIT3	
	0.00	WL	Water level, 0% of the vertical dimension	
	0.04	RFJ	Roots, fine at joint	2
	4.29	RFJ	Roots, fine at joint	2
	12.84	RFJ	Roots, fine at joint	2
	18.43	JN	Junction at 3 o'clock, 100mm dia	
	18.43	JN	Junction at 9 o'clock, 100mm dia	
	26.07	RFJ	Roots, fine at joint	2
	34.01	SA	Survey abandoned: UNABLE TO CONTINUE	



CP - 0.00



WL - 0.00



RFJ - 0.04



RFJ - 4.29



RFJ - 12.84



Abandoned section inspection

Item No. 33	Insp. No. 33	Date 21/08/23	Time 9:39	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned No	PLR CATCH-PIT3X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified



JN - 18.43



JN - 18.43



RFJ - 26.07



SA - 34.01

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	4	1.0	0.1	4.0	2.0

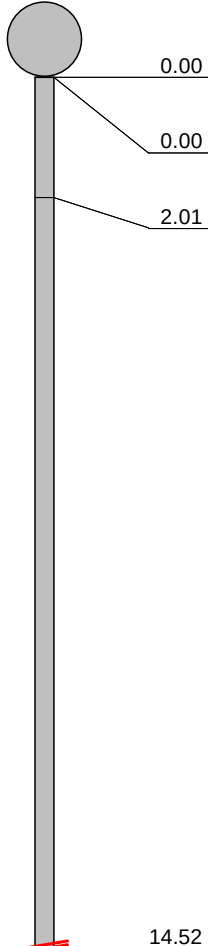
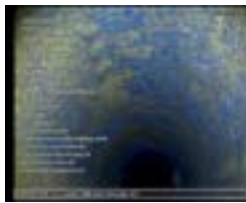
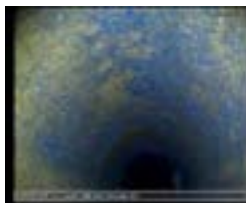
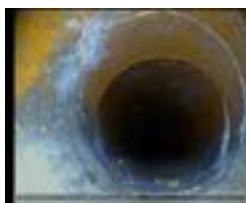
Abandoned section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
34	34	21/08/23	9:39	01	No Rain Or Snow	No	CATCHI-PITX
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Not Specified		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:		Inspection Direction: Downstream		Upstream Node: CATCHI-PIT	
Road:		Inspected Length: 14.52 m		Upstream Pipe Depth: 0.550 m	
Location: Under a building		Total Length: 14.52 m		Downstream Node:	
Surface Type:		Joint Length:		Downstream Pipe Depth: 0.000 m	
Use: Surface water		Pipe Shape: Circular			
Type of Pipe: Gravity drain/sewer		Dia/Height: 100 mm			
Flow Control: No flow control		Material: Vitrified clay			
Year Constructed: Not Specified		Lining Type: No Lining			
Inspection Purpose: Routine inspection		Lining Material: No Lining			

Comments:

Recommendations:

Scale:	1:126	Position [m]	Code	Observation	Grade
Depth: 0.55 m CATCHI-PIT 					
	0.00	CP	Start node, catchpit, reference: CATCHI-PIT		
	0.00	WL	Water level, 0% of the vertical dimension		CP - 0.00
	2.01	CC	Crack, circumferential from 1 o'clock to 12 o'clock 2 / 2		
					WL - 0.00
					
					CC - 2.01
					
					SA - 14.52
	14.52	SA	Survey abandoned: ROOTS		

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	10.0	0.7	10.0	2.0	1	1.0	0.1	1.0	2.0

Appendix E

Flood map for planning

Your reference
95326_a

Location (easting/northing)
533364/125535

Created
30 May 2025 14:43

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference
95326_a

Location (easting/northing)
533364/125535

Scale
1:2,500

Created
30 May 2025 14:43

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area



0 20 40 60m

Appendix F

Annex 3: Flood Risk Vulnerability Classification	
Essential Infrastructure:	• Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk. • Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; including electricity generating power stations, grid and primary substations storage; and water treatment works that need to remain operational in times of flood. • Wind turbines. • Solar farms.
Highly Vulnerable:	• Police and ambulance stations; fire stations and command centres; telecommunications installations required to be operational during flooding. • Emergency dispersal points. • Basement dwellings. • Caravans, mobile homes and park homes intended for permanent residential use. • Installations requiring hazardous substances consent. (Where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities, or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations, or need to be located in other high flood risk areas, in these instances the facilities should be classified as 'Essential Infrastructure'.)
More Vulnerable: * Landfill is as defined in Schedule 10 of the Environmental Permitting (England and Wales) Regulations 2010	• Hospitals. • Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. • Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels. • Non-residential uses for health services, nurseries and educational establishments. • Landfill* and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable:	• Police, ambulance and fire stations which are not required to be operational during flooding. • Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'more vulnerable' class; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill* and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment works which do not need to remain operational during times of flood. • Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place. • Car parks.
Water-Compatible Development:	• Flood control infrastructure. • Water transmission infrastructure and pumping stations. • Sewage transmission infrastructure and pumping stations. • Sand and gravel working. • Docks, marinas and wharves. • Navigation facilities. • Ministry of Defence installations. • Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. • Water-based recreation (excluding sleeping accommodation). • Lifeguard and coastguard stations. • Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. • Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

National Planning Policy Framework Annex 3: Flood risk vulnerability classification