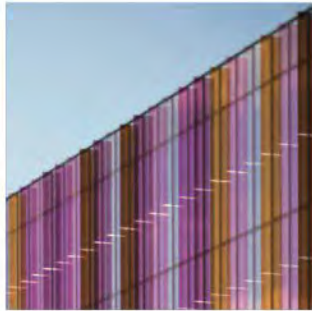
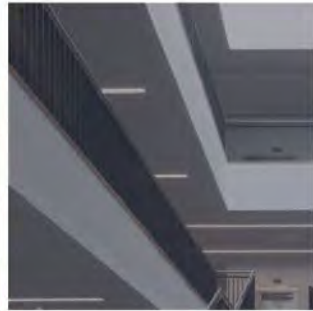
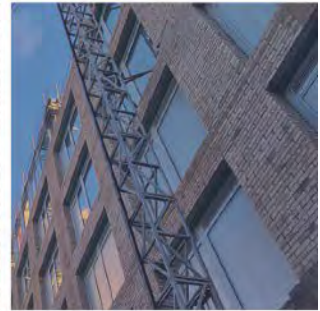
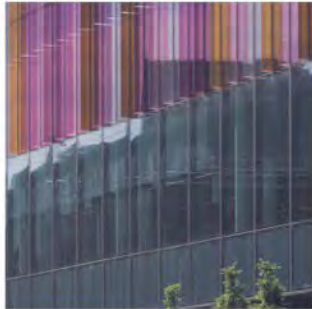
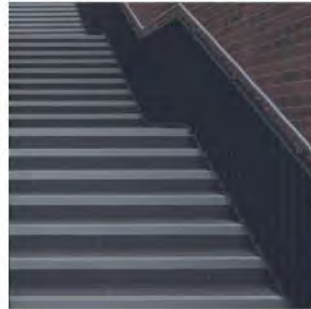


PIXB – West Didsbury

Decision Notice Clause Statement

Doc Ref: 15094-BKP-XX-XX-RP-C-0003 Rev. P01

Date: 04.09.2025



boothking



1. Decision Notice Clause

Clause 1

Progression through the drainage hierarchy must be evidence based and supported by site investigation including assessments of ground conditions and infiltration testing in accordance with BRE365. Proposals of attenuation should achieve half drain time within 24 hours.

Further Information required:

The applicant must present a consistent package to discharge this condition (Including all layouts and calculations). The layout and calculations must be jointly updated to account for any edits required. When preparing a resubmission, the applicant must ensure that the drainage layout and hydraulic calculations correspond, and that they can be cross-referenced for checks. This includes layout annotations and schedule printouts.

Response to Clause 1 & Further Information required:

Please refer to Appendix A for the surface water calculations, existing and proposed in conjunction with drawings No: 15094-BKP-XX-XX-DR-C-0510 - Proposed Drainage Key Plan, 15094-BKP-XX-XX-DR-C-0511 - Proposed Drainage GA – Sheet 1 and 15094-BKP-XX-XX-DR-C-0511 - Proposed Drainage GA – Sheet 2 in Appendix F.

Clause 2

Where surface water is connected to the public sewer, agreement in principle from United Utilities is required that there is adequate spare capacity in the existing system taking future development requirements into account. An email of acceptance of proposed flows and/or new connection will suffice.

Response to Clause 2

An application for a Section 106 Part 1 Agreement has been submitted to United Utilities (refer to Appendix B). The response will be provided and forwarded in due course upon receipt.

Clause 3

Maximised integration of green SuDS components (utilising infiltration or attenuation) if practicable.

Response to Clause 3

Please refer to Phase 1 & Preliminary Phase 2 Geoenvironmental Assessment for Proposed Premier Inn Annex Extension Premier Inn West Didsbury, Christie Fields Business Park, Derwent Ave, Manchester M21 7QS

(Project No: NX601) prepared by NX Consulting Limited in May 2025 regarding infiltration and ground conditions.

Summary of the Ground conditions (extract from the NX601)

	Made Ground	Glaciofluvial Deposits (Sand)	Glaciofluvial Deposits (Sand and Gravel)	Glaciofluvial Deposits (Clay)	Groundwater Strike(s)
WS1.1	0.00-1.80m	1.80-5.45	-	-	-
WS2.1	0.00-1.80m	1.80-3.50	3.50-4.70	4.70-5.45	3.70
WS3.1	0.00-0.90	0.90-4.65	4.65-4.75	4.75-5.45	4.65
WS4.1	0.00-1.50	1.50-4.70	-	4.70-5.45	3.30

Table 5.1.1. Ground Conditions Summary
M – Denotes metres below ground level

The Glaciofluvial sand would be considered to provide a moderate to good drainage potential where infiltration rates in the order of 10^{-5} m/s to 10^{-6} m/s can be anticipated. Although the Infiltration Rate was found to be 7.03E-05 m/s, Groundwater strikes were recorded within sand and gravel bands in WS2.1 to WS4.1 between depths of 3.30mbgl to 4.65mbgl. Subsequent groundwater level monitoring within WS1.1 recorded groundwater present between 2.59m to 2.77mbgl.

Soil sampling of Made Ground deposits has recorded contaminant concentrations below Tier 1 values for commercial end use (end use determined by sensitivity of proposed end users). Soil concentrations are not considered to pose an unacceptable risk to human health.

Any areas of proposed landscaping and public open space will require imported subsoil/topsoil materials which will require chemical validation to demonstrate that they are suitable for a commercial end use and taken to depths sufficient to provide a sufficient cover system for all proposed materials used which are capable to support root growth.

Based on the above findings, the use of a soakaway is deemed unsuitable and has been ruled out as a viable drainage option.

NX Consulting Limited reports can be provided upon request.

Clause 4

A finalised drainage layout showing all components, outfalls, levels and connectivity.

Further Information required:

Provide calculations to include Critical Storm Events for the 1 in 2, 1 in 30 and 1 in 100 + 45% Climate Change. Results must demonstrate no surcharge for the 1 in 2, no flooding in the 1 in 30 and no flooding of buildings for the 1 in 100 + 45% Climate Change. The proposed drainage plan shows that flows from the proposed SW network discharges into an existing SW network at two separate points, one is restricted to 5 l/s from proposed

manhole SWMH- 5 into an existing SW network at manhole SWMH-7 and the other is unrestricted from proposed SW network at manhole SWMH-3 into existing SW network at manhole EX-SWMH. Calculations to be provided to confirm the discharge rates.

Response to Clause 4

Please refer to Appendix A for the surface water calculations, both existing and proposed.

Clause 5

An existing and proposed impermeable areas drawing to accompany all discharge rate calculations.

Response to Clause 5

Please refer to Appendix C for the existing and proposed impermeable areas drawing No: 15094-BKP-XX-XX-DR-C-0501 - Drainage Areas GA and Appendix A for the surface water calculations, both existing and proposed.

Clause 6

Hydraulic calculations of the proposed drainage system, including all design parameters. Calculations must include Critical Storm Events for the 1 in 2, 1 in 30 and 1 in 100 + 45% Climate Change. Results must demonstrate no surcharge for the 1 in 2, no flooding in the 1 in 30 and no flooding of buildings for the 1 in 100 + 45% Climate Change.

Response to Clause 6

Please refer to Appendix A for the surface water calculations, both existing and proposed.

Clause 7

A plan indicating surface water overland flow routes for extreme events to ensure flows are diverted away from existing and proposed buildings (including basements).

Response to Clause 7

Please refer to Appendix D for the exceedance flood flow routes drawing No: 15094-BKP-XX-XX-DR-C-0515 - P01 - Exceedance flood flow plan

Clause 8

Construction details of flow control and SuDS elements.

Response to Clause 8

Please refer to Appendix E for drainage detail drawings No: 15094-BKP-XX-XX-DR-C-0590 - C02 - Drainage Details Sheet 1, 15094-BKP-XX-XX-DR-C-0590 - C02 - Drainage Details Sheet 2 and 15094-BKP-XX-XX-DR-C-0590 - C02 - Drainage Details Sheet 3

Clause 9

Finished floor levels and proposed ground levels plan.

Response to Clause 9

The proposed Finished Floor Level (FFL) of the Annex is set at 31.82m AOD or as close to existing Main Hotel Building finished floor level.

APPENDIX A

SURFACE WATER CALCULATIONS – EXISTING & PROPOSED

Design Settings

Rainfall Methodology	FEH-13	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)
1.000	MH14	MH12	16.136	0.600	31.280	31.120	0.160	100.9	150
1.001	MH12	MH08	17.174	0.600	31.120	30.740	0.380	45.2	150
1.002	MH08	MH01	13.891	0.600	30.740	30.520	0.220	63.1	150
1.003	MH01	MH30	52.439	0.600	30.520	29.610	0.910	57.6	150
2.000	MH22	MH30	23.865	0.600	30.050	29.610	0.440	54.2	225
3.000	Ex-SWMH03	Ex-SWMH02	24.622	0.600	30.787	30.378	0.409	60.2	150
3.001	Ex-SWMH02	MH30	40.147	0.600	30.378	29.610	0.768	52.3	150
1.004	MH30	Ex-SWMH06	22.957	0.600	29.610	29.315	0.295	77.8	225
1.005	Ex-SWMH06	EXSW MH01	18.425	0.600	29.315	29.130	0.185	99.6	225

Simulation Settings

Rainfall Methodology	FEH-13	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	30	40	0	0
2	0	0	0	100	0	0	0
30	0	0	0	100	45	0	0

Results for 1 year 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
15 minute summer	MH14	1	31.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	MH12	10	31.142	0.022	1.3	0.0253	0.0000	OK
15 minute summer	MH08	11	30.764	0.024	1.3	0.0273	0.0000	OK
15 minute summer	MH01	11	30.576	0.056	7.0	0.0984	0.0000	OK
15 minute summer	MH22	10	30.087	0.037	4.3	0.0323	0.0000	OK
15 minute summer	MH30	11	29.784	0.174	47.7	0.1968	0.0000	OK
15 minute summer	Ex-SWMH03	10	30.817	0.030	2.0	0.0257	0.0000	OK
15 minute summer	Ex-SWMH02	10	30.439	0.061	8.6	0.0525	0.0000	OK
15 minute summer	Ex-SWMH06	11	29.610	0.295	58.7	0.3334	0.0000	SURCHARGED
15 minute summer	EXSW MH01	11	29.329	0.199	58.6	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	MH14	1.000	MH12	0.0	0.000	0.000	0.0132	
15 minute summer	MH12	1.001	MH08	1.3	0.742	0.047	0.0295	
15 minute summer	MH08	1.002	MH01	1.3	0.334	0.056	0.0540	
15 minute summer	MH01	1.003	MH30	6.9	0.498	0.294	0.6175	
15 minute summer	MH22	2.000	MH30	4.2	0.273	0.060	0.4436	
15 minute summer	MH30	1.004	Ex-SWMH06	45.9	1.223	0.778	0.8348	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	2.0	0.440	0.086	0.1124	
15 minute summer	Ex-SWMH02	3.001	MH30	8.5	0.611	0.344	0.4873	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	58.6	1.474	1.124	0.7083	26.8

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.88%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH14	1	31.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	MH12	10	31.146	0.026	1.8	0.0298	0.0000	OK
15 minute summer	MH08	11	30.768	0.028	1.8	0.0322	0.0000	OK
15 minute summer	MH01	11	30.587	0.067	9.9	0.1186	0.0000	OK
15 minute summer	MH22	12	30.159	0.109	8.0	0.0943	0.0000	OK
15 minute summer	MH30	12	30.170	0.560	67.2	0.6332	0.0000	SURCHARGED
15 minute summer	Ex-SWMH03	10	30.822	0.035	2.8	0.0305	0.0000	OK
15 minute summer	Ex-SWMH02	10	30.452	0.074	12.2	0.0638	0.0000	OK
15 minute summer	Ex-SWMH06	11	29.809	0.494	74.3	0.5582	0.0000	SURCHARGED
15 minute summer	EXSW MH01	11	29.341	0.211	74.1	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	MH14	1.000	MH12	0.0	0.000	0.000	0.0167	
15 minute summer	MH12	1.001	MH08	1.8	0.815	0.067	0.0374	
15 minute summer	MH08	1.002	MH01	1.8	0.365	0.079	0.0691	
15 minute summer	MH01	1.003	MH30	9.7	0.664	0.414	0.6616	
15 minute summer	MH22	2.000	MH30	10.0	0.356	0.141	0.7014	
15 minute summer	MH30	1.004	Ex-SWMH06	58.8	1.478	0.996	0.9130	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	2.8	0.480	0.121	0.1445	
15 minute summer	Ex-SWMH02	3.001	MH30	12.0	0.796	0.486	0.5260	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	74.1	1.862	1.422	0.7234	37.6

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.44%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH14	12	31.488	0.208	7.5	0.2354	0.0000	FLOOD RISK
30 minute summer	MH12	19	31.493	0.373	8.8	0.4214	0.0000	SURCHARGED
30 minute summer	MH08	19	31.475	0.735	12.7	0.8311	0.0000	FLOOD RISK
15 minute summer	MH01	10	31.430	0.910	28.6	1.6080	3.2192	FLOOD
30 minute summer	MH22	18	31.431	1.381	13.8	1.1963	0.0000	FLOOD RISK
15 minute summer	MH30	10	31.400	1.790	123.8	2.0245	6.1193	FLOOD
15 minute summer	Ex-SWMH03	10	31.619	0.832	18.8	0.7202	0.0000	FLOOD RISK
15 minute summer	Ex-SWMH02	10	31.500	1.122	35.2	0.9717	4.2949	FLOOD
15 minute summer	Ex-SWMH06	10	30.725	1.410	128.0	1.5949	0.0000	SURCHARGED
15 minute summer	EXSW MH01	8	29.343	0.213	127.7	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	MH14	1.000	MH12	-8.3	-0.470	-0.467	0.2841	
15 minute summer	MH12	1.001	MH08	-11.7	0.969	-0.441	0.3023	
15 minute winter	MH08	1.002	MH01	-14.7	-0.868	-0.656	0.2445	
15 minute summer	MH01	1.003	MH30	20.9	1.230	0.890	0.9232	
15 minute winter	MH22	2.000	MH30	18.0	0.453	0.255	0.9491	
30 minute winter	MH30	1.004	Ex-SWMH06	88.6	2.228	1.502	0.9130	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	-12.0	-0.680	-0.522	0.4335	
15 minute summer	Ex-SWMH02	3.001	MH30	18.7	1.062	0.758	0.7068	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	127.7	3.211	2.452	0.7254	81.3

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 98.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH14	11	31.512	0.232	7.8	0.2624	0.0000	FLOOD RISK
30 minute summer	MH12	18	31.494	0.374	13.3	0.4234	0.0000	SURCHARGED
60 minute winter	MH08	33	31.463	0.723	8.1	0.8177	0.0000	FLOOD RISK
30 minute summer	MH01	16	31.430	0.910	34.1	1.6080	8.0012	FLOOD
15 minute summer	MH22	10	31.449	1.399	22.6	1.2115	0.0000	FLOOD RISK
15 minute summer	MH30	9	31.400	1.790	172.3	2.0245	21.6477	FLOOD
15 minute summer	Ex-SWMH03	9	31.689	0.902	12.5	0.7813	0.0000	FLOOD RISK
30 minute summer	Ex-SWMH02	16	31.500	1.122	39.2	0.9717	9.5094	FLOOD
15 minute summer	Ex-SWMH06	10	30.900	1.585	136.0	1.7927	0.0000	SURCHARGED
15 minute summer	EXSW MH01	7	29.343	0.213	135.5	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	MH14	1.000	MH12	-9.8	-0.564	-0.553	0.2841	
15 minute winter	MH12	1.001	MH08	-11.8	0.963	-0.444	0.3023	
15 minute winter	MH08	1.002	MH01	-16.8	-0.961	-0.751	0.2445	
15 minute winter	MH01	1.003	MH30	21.1	1.201	0.901	0.9232	
15 minute summer	MH22	2.000	MH30	21.0	0.527	0.296	0.9491	
60 minute winter	MH30	1.004	Ex-SWMH06	88.7	2.231	1.504	0.9130	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	13.2	0.748	0.574	0.4335	
15 minute winter	Ex-SWMH02	3.001	MH30	18.6	1.058	0.756	0.7068	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	135.5	3.408	2.603	0.7254	94.5

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH14	11	31.514	0.234	8.3	0.2643	0.0000	FLOOD RISK
30 minute summer	MH12	18	31.493	0.373	14.3	0.4220	0.0000	SURCHARGED
60 minute winter	MH08	33	31.459	0.719	8.7	0.8134	0.0000	FLOOD RISK
30 minute summer	MH01	16	31.430	0.910	34.2	1.6080	8.0407	FLOOD
15 minute summer	MH22	10	31.449	1.399	22.0	1.2113	0.0000	FLOOD RISK
15 minute summer	MH30	9	31.400	1.790	171.9	2.0245	21.7682	FLOOD
15 minute summer	Ex-SWMH03	9	31.690	0.903	12.0	0.7823	0.0000	FLOOD RISK
30 minute summer	Ex-SWMH02	16	31.500	1.122	39.6	0.9717	9.5801	FLOOD
15 minute summer	Ex-SWMH06	10	30.898	1.583	136.0	1.7907	0.0000	SURCHARGED
15 minute summer	EXSW MH01	7	29.343	0.213	135.5	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	MH14	1.000	MH12	-9.3	-0.527	-0.524	0.2841	
15 minute winter	MH12	1.001	MH08	-12.1	0.963	-0.457	0.3023	
15 minute winter	MH08	1.002	MH01	-16.3	-0.941	-0.726	0.2445	
15 minute winter	MH01	1.003	MH30	21.2	1.204	0.902	0.9232	
15 minute summer	MH22	2.000	MH30	21.0	0.527	0.296	0.9491	
60 minute winter	MH30	1.004	Ex-SWMH06	88.8	2.233	1.505	0.9130	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	13.1	0.742	0.570	0.4335	
15 minute winter	Ex-SWMH02	3.001	MH30	18.7	1.060	0.757	0.7068	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	135.5	3.407	2.601	0.7254	94.4

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.17%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	MH14	10	31.538	0.258	11.0	0.2915	0.0000	FLOOD RISK
15 minute summer	MH12	10	31.528	0.408	10.7	0.4620	0.0000	SURCHARGED
60 minute summer	MH08	30	31.480	0.740	13.2	0.8375	0.0000	FLOOD RISK
30 minute winter	MH01	14	31.430	0.910	37.6	1.6080	15.5101	FLOOD
15 minute summer	MH22	10	31.505	1.455	31.1	1.2604	0.0000	FLOOD RISK
30 minute summer	MH30	15	31.400	1.790	225.8	2.0245	52.6513	FLOOD
15 minute summer	Ex-SWMH03	8	31.730	0.943	14.6	0.8163	0.0000	FLOOD RISK
30 minute winter	Ex-SWMH02	14	31.500	1.122	46.3	0.9717	18.2532	FLOOD
15 minute summer	Ex-SWMH06	10	31.144	1.829	146.4	2.0690	0.0000	SURCHARGED
15 minute summer	EXSW MH01	6	29.343	0.213	145.8	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	MH14	1.000	MH12	-11.0	-0.626	-0.623	0.2841	
15 minute winter	MH12	1.001	MH08	-11.0	0.962	-0.414	0.3023	
15 minute winter	MH08	1.002	MH01	-16.6	-0.973	-0.740	0.2445	
15 minute winter	MH01	1.003	MH30	20.6	1.172	0.880	0.9232	
15 minute summer	MH22	2.000	MH30	30.9	0.776	0.436	0.9491	
60 minute winter	MH30	1.004	Ex-SWMH06	88.7	2.231	1.504	0.9130	
15 minute summer	Ex-SWMH03	3.000	Ex-SWMH02	14.3	0.814	0.625	0.4335	
15 minute winter	Ex-SWMH02	3.001	MH30	18.7	1.063	0.760	0.7068	
15 minute summer	Ex-SWMH06	1.005	EXSW MH01	145.8	3.666	2.799	0.7254	110.1

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)
1.000	SWIC-1	SWIC-2	32.394	0.600	30.900	30.300	0.600	54.0	150
1.002	SWIC-2	Ex-SWMH04	9.642	0.600	30.300	30.050	0.250	38.6	150
1.003	Ex-SWMH04	Ex-SWMH01	23.865	0.600	30.050	29.610	0.440	54.2	225
2.000	SWIC-3	SWMH-2	8.896	0.600	30.600	30.400	0.200	44.5	150
2.001	SWMH-2	SWMH-3	23.196	0.600	30.400	29.800	0.600	38.7	150
2.002	SWMH-3	Ex-SWMH01	8.995	0.600	29.800	29.610	0.190	47.3	150
3.000	SWMH-1	SWMH-4	31.541	0.600	30.500	29.900	0.600	52.6	150
3.001	SWMH-4	SW- Petrol Interceptor	3.037	0.600	29.900	29.800	0.100	30.4	150
3.002	SW- Petrol Interceptor	SWMH-5	3.893	0.600	29.700	29.600	0.100	38.9	150
4.000	SWMH-6	SW- Offline Attenuation Tank	9.630	0.600	29.800	29.700	0.100	96.3	150
4.001	SW- Offline Attenuation Tank	SWMH-5	9.390	0.600	29.700	29.600	0.100	93.9	150
4.002	SWMH-5	SWMH-7	4.308	0.600	29.600	29.500	0.100	43.1	150
5.000	Ex-MH14	Ex-MH12	16.136	0.600	31.280	31.120	0.160	100.9	150
5.001	Ex-MH12	Ex-S4	17.174	0.600	31.120	30.740	0.380	45.2	150
5.002	Ex-S4	Ex-S3	13.891	0.600	30.740	30.520	0.220	63.1	150
5.003	Ex-S3	Ex-SWMH01	52.439	0.600	30.520	29.610	0.910	57.6	150
1.004	Ex-SWMH01	SWMH-7	8.406	0.600	29.610	29.500	0.110	76.4	300
1.005	SWMH-7	Ex-SWMH06	14.555	0.600	29.500	29.315	0.185	78.7	300
1.006	Ex-SWMH06	Outfall - Ex-SWMH 3	18.459	0.600	29.315	29.130	0.185	99.8	300

Simulation Settings

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

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	30	40	0	0
2	0	0	0	100	0	0	0
30	0	0	0	100	45	0	0

Node SWMH-5 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.600	Product Number	CTL-SHE-0072-3000-1800-3000
Design Depth (m)	1.800	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	3.0	Min Node Diameter (mm)	1200

Node SW- Offline Attenuation Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.700
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.92	Time to half empty (mins)	102

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	60.0	0.0	0.400	60.0	0.0	0.800	60.0	0.0	0.801	0.0	0.0

Node SWMH-1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	30.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.35	Time to half empty (mins)	4

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	9.0	0.0	0.700	9.0	0.0	0.701	0.0	0.0

Node SWMH-4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.900
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.35	Time to half empty (mins)	4

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	9.0	0.0	0.700	9.0	0.0	0.701	9.0	0.0

Results for 1 year 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
15 minute summer	SWIC-1	11	30.916	0.016	0.6	0.0026	0.0000	OK
15 minute summer	SWIC-2	10	30.335	0.035	3.4	0.0098	0.0000	OK
15 minute summer	Ex-SWMH04	10	30.098	0.048	7.2	0.0543	0.0000	OK
15 minute summer	Ex-MH14	1	31.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	Ex-MH12	10	31.141	0.021	1.2	0.0243	0.0000	OK
15 minute summer	Ex-S4	11	30.763	0.023	1.2	0.0262	0.0000	OK
15 minute summer	Ex-S3	11	30.573	0.053	6.4	0.0600	0.0000	OK
15 minute summer	SWIC-3	10	30.627	0.027	1.7	0.0075	0.0000	OK
15 minute summer	SWMH-2	11	30.425	0.025	1.7	0.0281	0.0000	OK
15 minute summer	SWMH-3	10	29.839	0.039	3.9	0.0441	0.0000	OK
15 minute summer	Ex-SWMH01	11	29.725	0.115	32.3	0.1304	0.0000	OK
15 minute summer	SWMH-1	11	30.542	0.042	4.4	0.1810	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	0.6	0.308	0.025	0.0662	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	3.3	0.848	0.116	0.0382	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	7.1	0.551	0.101	0.3174	
15 minute summer	Ex-MH14	5.000	Ex-MH12	0.0	0.000	0.000	0.0125	
15 minute summer	Ex-MH12	5.001	Ex-S4	1.2	0.726	0.044	0.0277	
15 minute summer	Ex-S4	5.002	Ex-S3	1.2	0.328	0.051	0.0506	
15 minute summer	Ex-S3	5.003	Ex-SWMH01	6.3	0.619	0.269	0.5270	
15 minute summer	SWIC-3	2.000	SWMH-2	1.7	0.860	0.064	0.0178	
15 minute summer	SWMH-2	2.001	SWMH-3	1.7	0.623	0.059	0.0642	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	3.8	0.422	0.148	0.0817	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	32.0	1.279	0.252	0.2104	
15 minute summer	SWMH-1	3.000	SWMH-4	4.3	0.802	0.174	0.1703	

Results for 1 year 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
15 minute summer	SWMH-4	11	29.961	0.061	8.6	0.2614	0.0000	OK
15 minute summer	SW- Petrol Interceptor	11	29.886	0.186	8.4	0.2098	0.0000	SURCHARGED
15 minute summer	SWMH-6	1	29.800	0.000	0.0	0.0000	0.0000	OK
30 minute summer	SW- Offline Attenuation Tank	25	29.735	0.035	6.1	1.9344	0.0000	OK
15 minute summer	SWMH-5	11	29.872	0.272	8.5	0.4808	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	29.616	0.116	34.3	0.1311	0.0000	OK
15 minute summer	Ex-SWMH06	11	29.460	0.145	46.2	0.1639	0.0000	OK
15 minute summer	Outfall - Ex-SWMH 3	11	29.264	0.134	46.3	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	8.4	1.379	0.258	0.0260	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	8.5	0.775	0.298	0.0685	
15 minute summer	SWMH-6	4.000	SW- Offline Attenuation Tank	0.0	0.000	0.000	0.0135	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-7.2	-0.660	-0.394	0.0932	
15 minute summer	SWMH-5	4.002	SWMH-7	2.3	0.816	0.085	0.0367	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	34.4	1.172	0.275	0.4281	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	46.3	1.449	0.417	0.5907	23.1

Results for 2 year 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
15 minute summer	SWIC-1	10	30.919	0.019	0.9	0.0031	0.0000	OK
15 minute summer	SWIC-2	10	30.342	0.042	5.0	0.0119	0.0000	OK
15 minute summer	Ex-SWMH04	10	30.109	0.059	10.8	0.0665	0.0000	OK
15 minute summer	Ex-MH14	1	31.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	Ex-MH12	10	31.146	0.026	1.7	0.0290	0.0000	OK
15 minute summer	Ex-S4	11	30.768	0.028	1.7	0.0312	0.0000	OK
15 minute summer	Ex-S3	11	30.586	0.066	9.5	0.0743	0.0000	OK
15 minute summer	SWIC-3	10	30.633	0.033	2.6	0.0093	0.0000	OK
15 minute summer	SWMH-2	10	30.430	0.030	2.6	0.0342	0.0000	OK
15 minute summer	SWMH-3	10	29.848	0.048	5.8	0.0544	0.0000	OK
15 minute summer	Ex-SWMH01	10	29.758	0.148	48.3	0.1678	0.0000	OK
15 minute summer	SWMH-1	11	30.552	0.052	6.5	0.2217	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	0.9	0.334	0.036	0.0866	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	4.9	0.944	0.170	0.0502	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	10.7	0.598	0.151	0.4295	
15 minute summer	Ex-MH14	5.000	Ex-MH12	0.0	0.000	0.000	0.0161	
15 minute summer	Ex-MH12	5.001	Ex-S4	1.7	0.802	0.063	0.0358	
15 minute summer	Ex-S4	5.002	Ex-S3	1.7	0.354	0.074	0.0669	
15 minute summer	Ex-S3	5.003	Ex-SWMH01	9.3	0.695	0.398	0.6552	
15 minute summer	SWIC-3	2.000	SWMH-2	2.6	0.962	0.097	0.0239	
15 minute summer	SWMH-2	2.001	SWMH-3	2.6	0.699	0.089	0.0858	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	5.8	0.471	0.222	0.1009	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	47.8	1.378	0.375	0.2915	
15 minute summer	SWMH-1	3.000	SWMH-4	6.3	0.864	0.257	0.2549	

Results for 2 year 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
15 minute summer	SWMH-4	11	29.988	0.088	12.8	0.3779	0.0000	OK
15 minute summer	SW- Petrol Interceptor	11	29.973	0.273	12.3	0.3091	0.0000	SURCHARGED
15 minute summer	SWMH-6	1	29.800	0.000	0.0	0.0000	0.0000	OK
30 minute winter	SW- Offline Attenuation Tank	28	29.766	0.066	7.5	3.6164	0.0000	OK
15 minute summer	SWMH-5	11	29.939	0.339	13.5	0.5998	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	29.648	0.148	50.0	0.1676	0.0000	OK
15 minute summer	Ex-SWMH06	11	29.501	0.186	67.8	0.2099	0.0000	OK
15 minute summer	Outfall - Ex-SWMH 3	11	29.298	0.168	68.3	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	12.3	1.429	0.380	0.0431	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	13.5	0.853	0.473	0.0685	
15 minute summer	SWMH-6	4.000	SW- Offline Attenuation Tank	0.0	0.000	0.000	0.0312	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-13.1	-1.083	-0.712	0.1131	
15 minute winter	SWMH-5	4.002	SWMH-7	2.8	0.875	0.102	0.0456	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	50.3	1.254	0.401	0.5854	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	68.3	1.582	0.614	0.7963	34.5

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.58%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWIC-1	10	30.930	0.030	2.2	0.0048	0.0000	OK
15 minute summer	SWIC-2	10	30.372	0.072	12.5	0.0203	0.0000	OK
15 minute summer	Ex-SWMH04	11	30.275	0.225	27.2	0.2543	0.0000	OK
15 minute summer	Ex-MH14	1	31.280	0.000	0.0	0.0000	0.0000	OK
15 minute summer	Ex-MH12	10	31.161	0.041	4.3	0.0464	0.0000	OK
15 minute summer	Ex-S4	12	30.882	0.142	4.2	0.1604	0.0000	OK
15 minute summer	Ex-S3	12	30.864	0.344	24.0	0.3894	0.0000	SURCHARGED
15 minute summer	SWIC-3	10	30.654	0.054	6.5	0.0152	0.0000	OK
15 minute summer	SWMH-2	10	30.448	0.048	6.5	0.0545	0.0000	OK
15 minute summer	SWMH-3	11	30.273	0.473	14.6	0.5351	0.0000	SURCHARGED
15 minute summer	Ex-SWMH01	11	30.211	0.601	108.3	0.6797	0.0000	SURCHARGED
15 minute summer	SWMH-1	11	30.596	0.096	16.4	0.4103	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	2.2	0.426	0.089	0.1758	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	12.5	1.193	0.436	0.1223	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	25.8	0.766	0.364	0.9484	
15 minute summer	Ex-MH14	5.000	Ex-MH12	0.0	0.000	0.000	0.0315	
15 minute summer	Ex-MH12	5.001	Ex-S4	4.2	1.038	0.160	0.1774	
15 minute summer	Ex-S4	5.002	Ex-S3	7.6	0.473	0.341	0.2420	
15 minute summer	Ex-S3	5.003	Ex-SWMH01	20.2	1.185	0.863	0.9232	
15 minute summer	SWIC-3	2.000	SWMH-2	6.5	1.230	0.242	0.0468	
15 minute summer	SWMH-2	2.001	SWMH-3	6.4	0.810	0.223	0.2608	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	15.3	0.870	0.591	0.1584	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	107.4	1.525	0.844	0.5919	
15 minute summer	SWMH-1	3.000	SWMH-4	15.6	0.983	0.636	0.4650	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.58%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMH-4	12	30.376	0.476	32.0	2.0394	0.0000	SURCHARGED
15 minute summer	SW- Petrol Interceptor	12	30.241	0.541	26.9	0.6123	0.0000	SURCHARGED
60 minute winter	SWMH-6	59	29.959	0.159	0.4	0.1378	0.0000	SURCHARGED
60 minute winter	SW- Offline Attenuation Tank	58	29.958	0.258	12.7	14.2243	0.0000	SURCHARGED
15 minute summer	SWMH-5	11	30.087	0.487	27.2	0.8599	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	30.069	0.569	107.6	0.6434	0.0000	SURCHARGED
15 minute summer	Ex-SWMH06	11	29.870	0.555	150.2	0.6272	0.0000	SURCHARGED
15 minute summer	Outfall - Ex-SWMH 3	11	29.411	0.281	149.9	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	26.9	1.531	0.832	0.0535	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	27.2	1.547	0.953	0.0685	
30 minute winter	SWMH-6	4.000	SW- Offline Attenuation Tank	-0.7	-0.097	-0.040	0.1670	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-27.1	-1.720	-1.480	0.1653	
15 minute winter	SWMH-5	4.002	SWMH-7	5.8	0.919	0.213	0.0758	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	108.9	1.546	0.868	1.0250	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	149.9	2.129	1.348	1.2826	86.9

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.44%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWIC-1	10	30.935	0.035	3.0	0.0056	0.0000	OK
15 minute summer	SWIC-2	12	30.911	0.611	17.5	0.1730	0.0000	SURCHARGED
15 minute summer	Ex-SWMH04	11	30.807	0.757	33.3	0.8567	0.0000	SURCHARGED
15 minute summer	Ex-MH14	13	31.447	0.167	4.7	0.1890	0.0000	FLOOD RISK
15 minute summer	Ex-MH12	13	31.448	0.328	7.7	0.3712	0.0000	SURCHARGED
15 minute summer	Ex-S4	13	31.438	0.698	11.9	0.7895	0.0000	SURCHARGED
15 minute summer	Ex-S3	13	31.409	0.889	27.8	1.0056	0.0000	FLOOD RISK
15 minute summer	SWIC-3	12	30.869	0.269	9.1	0.0763	0.0000	SURCHARGED
15 minute summer	SWMH-2	12	30.850	0.450	11.1	0.5084	0.0000	SURCHARGED
15 minute summer	SWMH-3	12	30.796	0.996	19.1	1.1268	0.0000	SURCHARGED
15 minute summer	Ex-SWMH01	11	30.697	1.087	137.9	1.2293	0.0000	SURCHARGED
15 minute summer	SWMH-1	12	30.884	0.384	23.0	1.6443	0.0000	SURCHARGED
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	3.0	0.418	0.123	0.3366	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	17.2	1.210	0.598	0.1697	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	34.0	0.855	0.480	0.9491	
15 minute summer	Ex-MH14	5.000	Ex-MH12	-4.7	-0.268	-0.267	0.2841	
15 minute summer	Ex-MH12	5.001	Ex-S4	10.4	1.060	0.392	0.3023	
15 minute summer	Ex-S4	5.002	Ex-S3	14.4	0.819	0.643	0.2445	
15 minute summer	Ex-S3	5.003	Ex-SWMH01	24.7	1.403	1.053	0.9232	
15 minute summer	SWIC-3	2.000	SWMH-2	9.3	1.325	0.347	0.1566	
15 minute summer	SWMH-2	2.001	SWMH-3	13.4	0.798	0.468	0.4084	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	22.9	1.299	0.883	0.1584	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	136.3	1.936	1.071	0.5919	
15 minute summer	SWMH-1	3.000	SWMH-4	17.7	1.044	0.722	0.5553	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.44%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMH-4	12	30.613	0.713	39.5	3.0536	0.0000	SURCHARGED
15 minute summer	SW- Petrol Interceptor	13	30.436	0.736	32.0	0.8325	0.0000	SURCHARGED
60 minute summer	SWMH-6	62	30.102	0.301	0.6	0.2611	0.0000	SURCHARGED
60 minute summer	SW- Offline Attenuation Tank	62	30.102	0.402	22.8	22.1650	0.0000	SURCHARGED
15 minute summer	SWMH-5	13	30.241	0.641	33.9	1.1318	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	30.469	0.969	136.3	1.0957	0.0000	SURCHARGED
15 minute summer	Ex-SWMH06	11	30.164	0.849	192.8	0.9604	0.0000	SURCHARGED
15 minute summer	Outfall - Ex-SWMH 3	9	29.414	0.284	192.1	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	32.0	1.819	0.988	0.0535	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	31.6	1.797	1.107	0.0685	
15 minute winter	SWMH-6	4.000	SW- Offline Attenuation Tank	-1.2	-0.146	-0.066	0.1695	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-33.3	-2.001	-1.819	0.1653	
15 minute winter	SWMH-5	4.002	SWMH-7	7.7	0.926	0.283	0.0758	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	136.5	1.938	1.088	1.0250	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	192.1	2.728	1.727	1.2867	121.3

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWIC-1	10	30.934	0.034	2.7	0.0053	0.0000	OK
15 minute summer	SWIC-2	12	30.698	0.398	15.8	0.1125	0.0000	SURCHARGED
15 minute summer	Ex-SWMH04	11	30.620	0.570	32.0	0.6452	0.0000	SURCHARGED
15 minute summer	Ex-MH14	13	31.296	0.016	0.8	0.0183	0.0000	OK
15 minute summer	Ex-MH12	12	31.296	0.176	5.5	0.1994	0.0000	SURCHARGED
15 minute summer	Ex-S4	12	31.281	0.541	8.2	0.6116	0.0000	SURCHARGED
15 minute summer	Ex-S3	12	31.262	0.742	28.1	0.8394	0.0000	FLOOD RISK
15 minute summer	SWIC-3	12	30.668	0.068	8.2	0.0193	0.0000	OK
15 minute summer	SWMH-2	12	30.659	0.259	8.2	0.2934	0.0000	SURCHARGED
15 minute summer	SWMH-3	12	30.608	0.808	17.2	0.9144	0.0000	SURCHARGED
15 minute summer	Ex-SWMH01	11	30.523	0.913	128.5	1.0331	0.0000	SURCHARGED
15 minute summer	SWMH-1	12	30.778	0.278	20.8	1.1920	0.0000	SURCHARGED
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	2.7	0.411	0.110	0.3328	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	15.6	1.176	0.545	0.1697	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	31.2	0.841	0.441	0.9491	
15 minute summer	Ex-MH14	5.000	Ex-MH12	-0.8	-0.077	-0.045	0.1503	
15 minute summer	Ex-MH12	5.001	Ex-S4	8.2	1.088	0.308	0.3023	
15 minute summer	Ex-S4	5.002	Ex-S3	11.9	0.675	0.530	0.2445	
15 minute summer	Ex-S3	5.003	Ex-SWMH01	23.2	1.317	0.989	0.9232	
15 minute summer	SWIC-3	2.000	SWMH-2	8.2	1.289	0.307	0.1128	
15 minute summer	SWMH-2	2.001	SWMH-3	10.0	0.759	0.347	0.4084	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	19.8	1.124	0.764	0.1584	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	127.0	1.804	0.998	0.5919	
30 minute summer	SWMH-1	3.000	SWMH-4	17.1	1.046	0.698	0.5553	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMH-4	12	30.536	0.636	36.9	2.7208	0.0000	SURCHARGED
15 minute summer	SW- Petrol Interceptor	12	30.367	0.667	30.1	0.7540	0.0000	SURCHARGED
60 minute summer	SWMH-6	62	30.060	0.260	0.6	0.2250	0.0000	SURCHARGED
60 minute summer	SW- Offline Attenuation Tank	61	30.060	0.360	21.0	19.8535	0.0000	SURCHARGED
15 minute summer	SWMH-5	13	30.177	0.577	32.1	1.0203	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	30.324	0.824	127.0	0.9323	0.0000	SURCHARGED
15 minute summer	Ex-SWMH06	11	30.058	0.743	178.5	0.8401	0.0000	SURCHARGED
15 minute summer	Outfall - Ex-SWMH 3	10	29.414	0.284	178.0	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	30.1	1.713	0.931	0.0535	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	30.0	1.704	1.049	0.0685	
30 minute summer	SWMH-6	4.000	SW- Offline Attenuation Tank	-0.9	-0.120	-0.050	0.1695	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-32.1	-1.945	-1.749	0.1653	
30 minute summer	SWMH-5	4.002	SWMH-7	6.6	0.927	0.242	0.0758	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	127.2	1.807	1.015	1.0250	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	178.0	2.528	1.600	1.2867	110.2

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWIC-1	12	31.601	0.701	11.1	0.1114	0.0000	FLOOD RISK
15 minute summer	SWIC-2	12	31.581	1.281	21.7	0.3625	0.0000	FLOOD RISK
15 minute summer	Ex-SWMH04	12	31.427	1.377	40.7	1.5576	0.0000	FLOOD RISK
30 minute summer	Ex-MH14	19	31.512	0.232	5.3	0.2626	0.0000	FLOOD RISK
15 minute summer	Ex-MH12	11	31.524	0.404	10.7	0.4566	0.0000	SURCHARGED
15 minute summer	Ex-S4	11	31.483	0.743	14.0	0.8403	0.0000	FLOOD RISK
15 minute summer	Ex-S3	10	31.430	0.910	41.6	1.0292	4.8079	FLOOD
15 minute summer	SWIC-3	12	31.505	0.905	11.9	0.2561	0.0000	FLOOD RISK
15 minute summer	SWMH-2	12	31.474	1.074	17.7	1.2144	0.0000	FLOOD RISK
15 minute summer	SWMH-3	12	31.403	1.603	21.1	1.8133	0.0000	FLOOD RISK
15 minute summer	Ex-SWMH01	11	31.243	1.633	162.5	1.8469	0.0000	FLOOD RISK
15 minute summer	SWMH-1	12	31.375	0.875	30.2	3.1960	0.0000	FLOOD RISK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWIC-1	1.000	SWIC-2	9.4	0.532	0.386	0.5703	
15 minute summer	SWIC-2	1.002	Ex-SWMH04	23.3	1.326	0.813	0.1697	
15 minute summer	Ex-SWMH04	1.003	Ex-SWMH01	44.5	1.120	0.629	0.9491	
15 minute summer	Ex-MH14	5.000	Ex-MH12	-7.4	-0.589	-0.419	0.2841	
15 minute winter	Ex-MH12	5.001	Ex-S4	10.0	1.046	0.376	0.3023	
15 minute summer	Ex-S4	5.002	Ex-S3	14.2	0.826	0.634	0.2445	
30 minute winter	Ex-S3	5.003	Ex-SWMH01	24.7	1.405	1.054	0.9232	
15 minute summer	SWIC-3	2.000	SWMH-2	11.6	1.347	0.433	0.1566	
15 minute summer	SWMH-2	2.001	SWMH-3	16.5	0.937	0.575	0.4084	
15 minute summer	SWMH-3	2.002	Ex-SWMH01	28.6	1.625	1.105	0.1584	
15 minute summer	Ex-SWMH01	1.004	SWMH-7	159.9	2.270	1.256	0.5919	
15 minute summer	SWMH-1	3.000	SWMH-4	20.1	1.141	0.817	0.5553	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.45%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SWMH-4	13	30.936	1.036	45.4	4.4339	0.0000	SURCHARGED
15 minute summer	SW- Petrol Interceptor	13	30.696	0.996	37.8	1.1262	0.0000	SURCHARGED
60 minute summer	SWMH-6	63	30.293	0.493	0.6	0.4272	0.0000	SURCHARGED
60 minute summer	SW- Offline Attenuation Tank	63	30.293	0.593	29.0	32.7504	0.0000	SURCHARGED
30 minute summer	SWMH-5	21	30.437	0.837	35.4	1.4796	0.0000	SURCHARGED
15 minute summer	SWMH-7	11	30.929	1.429	159.9	1.6163	0.0000	SURCHARGED
15 minute summer	Ex-SWMH06	11	30.514	1.199	234.0	1.3563	0.0000	SURCHARGED
15 minute summer	Outfall - Ex-SWMH 3	9	29.414	0.284	232.6	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH-4	3.001	SW- Petrol Interceptor	37.8	2.147	1.167	0.0535	
15 minute summer	SW- Petrol Interceptor	3.002	SWMH-5	36.1	2.050	1.262	0.0685	
15 minute summer	SWMH-6	4.000	SW- Offline Attenuation Tank	-1.1	-0.085	-0.062	0.1695	
15 minute summer	SW- Offline Attenuation Tank	4.001	SWMH-5	-36.5	-2.120	-1.989	0.1653	
15 minute summer	SWMH-5	4.002	SWMH-7	-8.1	0.927	-0.298	0.0758	
15 minute summer	SWMH-7	1.005	Ex-SWMH06	160.1	2.273	1.277	1.0250	
15 minute summer	Ex-SWMH06	1.006	Outfall - Ex-SWMH 3	232.6	3.304	2.091	1.2867	155.2

APPENDIX B

SECTION S106 PART 1 APPLICATION CONFIRMATION

From: wastewaterdeveloperservices@uuplc.co.uk
To: [Eleni Zachara](#)
Subject: UU Ref : 08094779 - Part 1 Submission - Christie Fields Business Pk, Derwent Ave, Manchester M21 7QS
Date: 04 September 2025 10:19:15

Good Morning,

Thank you for your application to connect to the public sewer received 03/09/2025 for the above site. The application has been assigned reference number 08094779.

Payment of £720.86 (new charge @1st April 2025) should be made to;

NatWest Bank
Sort code: 01-09-17
Account number: 58934014

Account Name: UUW Sundry Debtors

The **Reference Number and Payee Name or Company Name** should be clearly indicated on the transfer so that your payment can be allocated correctly. If it is not included this may lead to delays in processing your application.

Daily checks will be made to confirm receipt of funds.

Alternatively, if you wish to pay by card can you please call 0345 072 6067

Once payment has been received, we will begin to process your application. Our service level agreement is to respond to you within 10 working days.

Kind Regards,

Ashleigh Brogan
Customer Advisor Advanced
Developer Services & Metering
Customer Services
T: 0345 026 8989 option 4
unitedutilities.com

If you have received a great service today why not tell us?

Visit: <http://unitedutilities.thewowawards.co.uk/nominate>



Customer Advisor Advanced
Developer Services & Metering
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APPENDIX C

EXISTING & PROPOSED IMPERMEABLE AREAS

TOPOGRAPHICAL NOTES:



The Topographical and buried services shown on this drawing were provided to Booth King by others. Booth King have not verified this information and therefore we can not guarantee its accuracy. The position and alignment of services may differ from that shown and other buried services may be present.

The contractor must verify the location of all buried services before any excavation or piling works begin. Damage to existing services could present a major health and safety risk plus associated commercial penalties.

Levels information shown is based on information available. This office is to be made aware of any discrepancies found on site.

DRAINAGE AREAS KEY:

REF.	DESCRIPTION
	Indicates soft landscaping area.
	Indicates hard landscaping area.

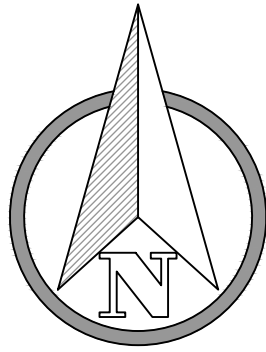
DRAINAGE AREA CALCULATIONS:

Existing soft landscaping area = 546m²
Existing hard landscaping area = 1239m²

Proposed soft landscaping area = 506m²
Proposed hard landscaping area = 1279m²

Net values:

Decreased soft / increased hard landscaping area = 40m²



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- If the Contractor consider that they do not have sufficient information to safely complete the works detailed on this drawing, they should contact the Engineer.
- This document uses revision codes in accordance with ISO EN 19650: P, Preliminary (non-contractual) - review, comment or approval. C, Contractual - Approved for stage completion.
- This document uses status codes in accordance with ISO EN 19650: Work in progress: S0 - WIP Shared (non-contractual): S1 - Coordination, S2 - Information, S3 - Review, S4 & S5 - Approval. Published (contractual): A1, An, etc. (where "n" relates to the project stage)
- This document uses project stages in accordance with the IStructE Structural Plan of Work 2020: 2 - Concept, 3 - Coordination, 4 - Technical Design, 4.5 - Production Design, 5 - Construction, 6 - Handover.
- Only documents with a revision code C# (where '#' relates to a revision number) and status code A5 are suitable for construction. Documents with status code A5 indicate final construction ONLY. Any deviations to that which is on site is not the liability of BKPL.



EXISTING DRAINAGE AREAS GA
SCALE 1:200



PROPOSED DRAINAGE AREAS GA
SCALE 1:200

C01	12.06.24	STAGE 3 - PLANNING APPROVAL	CM
REV.	DATE	REVISION DETAILS	INITIALS
CURRENT DRAWING REVISION CHECKED BY			SP
CURRENT DRAWING REVISION APPROVED BY			AI
DRAWING STATUS:		PROJECT STAGE:	
A3		STAGE 3	

boothking
PARTNERSHIP LIMITED

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Tel: 01706 822 022 Tel: 0161 694 7087 Tel: 0131 229 1547

PROJECT:
**Premier Inn Extension
Manchester West Didsbury**

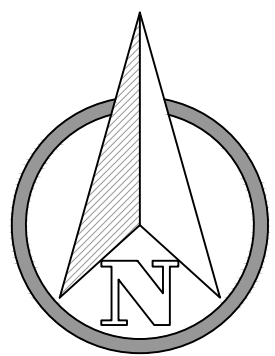
TITLE:
Drainage Areas GA

SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
As noted	CM	June 24	C01	15094

DRAWING REF:
15094-BKP-XX-XX-DR-C-0501

APPENDIX D

EXCEEDANCE FLOOD FLOW PLAN



FOR DETAILED PROPOSED DRAINAGE GA REFER TO:
15094-BKP-XX-XX-DR-C-0512 - PROPOSED DRAINAGE GA - SHEET 2

TOPOGRAPHICAL NOTES:

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The contractor must verify the location of all buried services before any excavation or piling works begin. Damage to existing services could present a major health and safety risk plus associated commercial penalties.

Levels information shown is based on information available.
This office is to be made aware of any discrepancies found on site.

DRAINAGE NOTE:

All information shown is subject to local building control & local water authority applications, comments & approvals.

REFERENCE KEY:

REF.	SECTION SIZE
	Flow Direction
	Flow Direction

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S0 - WIP
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S1 - Coordination, S2 - Information, S3 - Review, S4 & S5 - Approval.
Published (contractual):
A1, An, etc. (where 'n' relates to the project stage)
- This document uses project stages in accordance with the IStructE Structural Plan of Work 2020:
2 - Concept, 3 - Coordination, 4 - Technical Design,
4.5 - Production Design, 5 - Construction, 6 - Handover.
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Documents with status code A5 indicate final construction ONLY.
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P01	04.09.25	ISSUED FOR APPROVAL	CM
REV.	DATE	REVISION DETAILS	INITIALS
		CURRENT DRAWING REVISION CHECKED BY	EZ
		CURRENT DRAWING REVISION APPROVED BY	EZ
DRAWING STATUS:	S3	PROJECT STAGE:	STAGE 4

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PROJECT:
**Premier Inn Extension
Manchester West Didsbury**

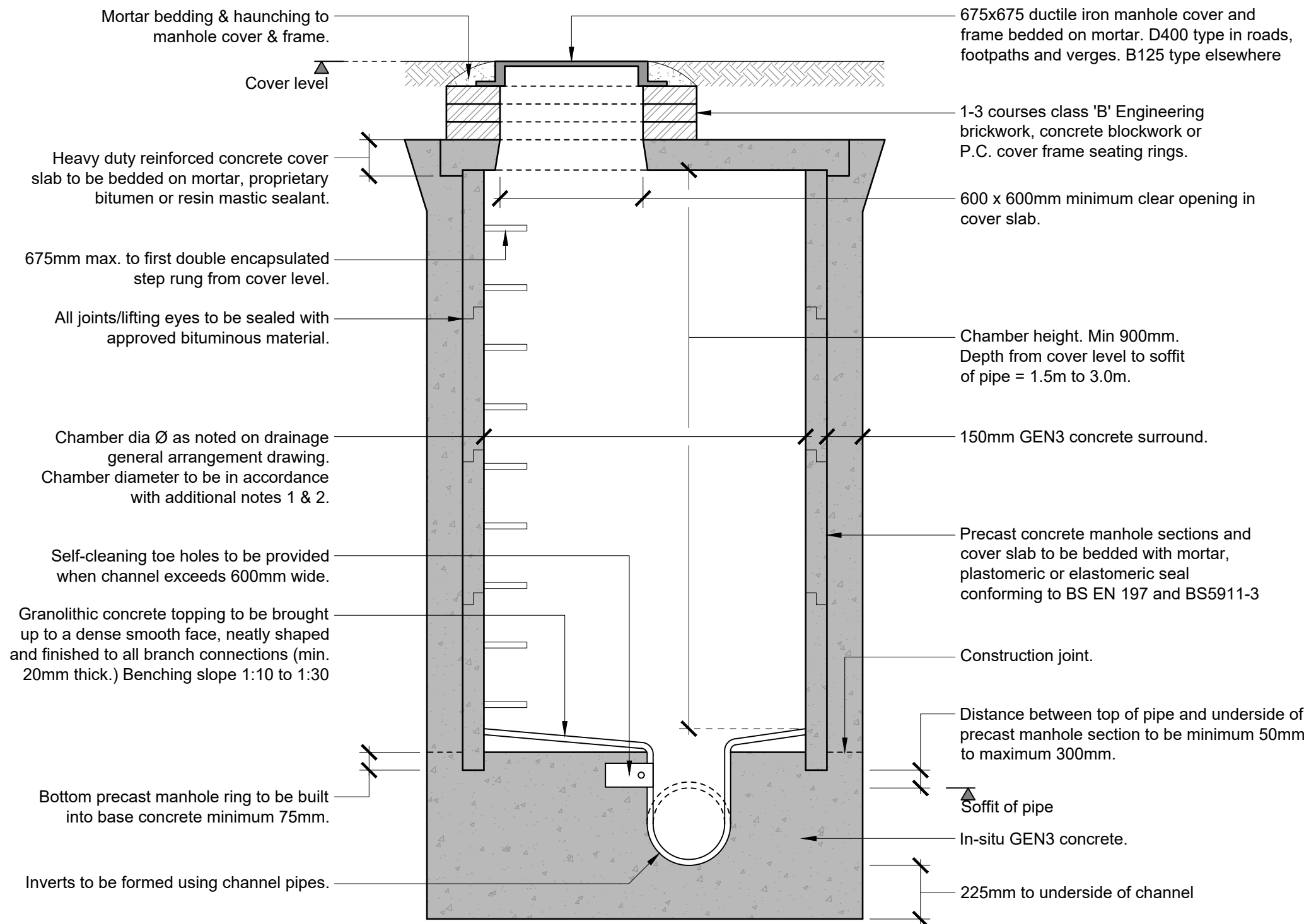
TITLE:
**Exceedance flood
flow plan**

SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
1:200	PA	Aug'25	P01	15094

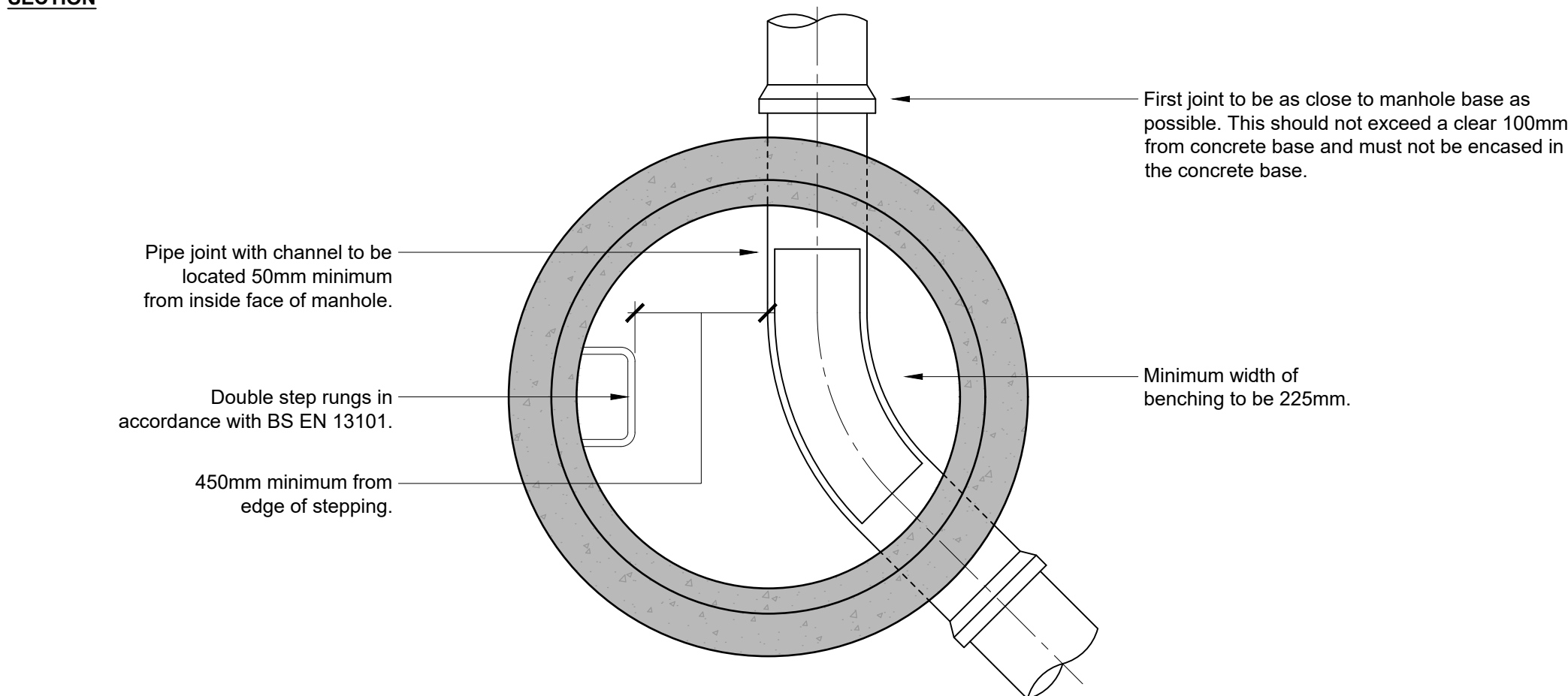
DRAWING REF:
15094-BKP-XX-XX-DR-C-0515

APPENDIX E

DRAINAGE DETAILS



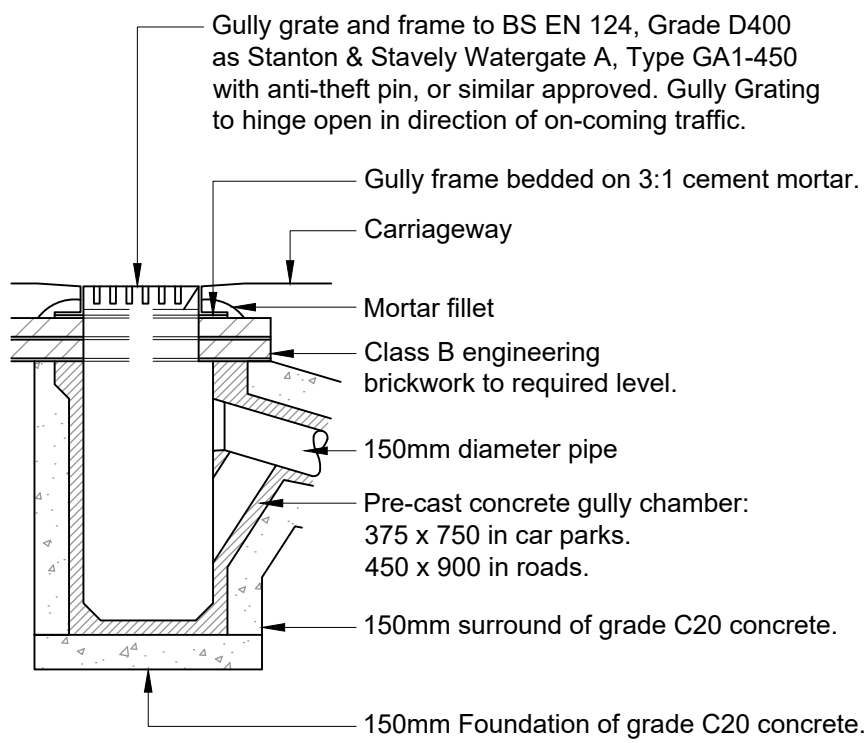
SECTION



PLAN

TYPICAL MANHOLE DETAIL - TYPE B - RIGID MATERIAL CONSTRUCTION WITH CONCRETE SURROUND

SCALE 1:20

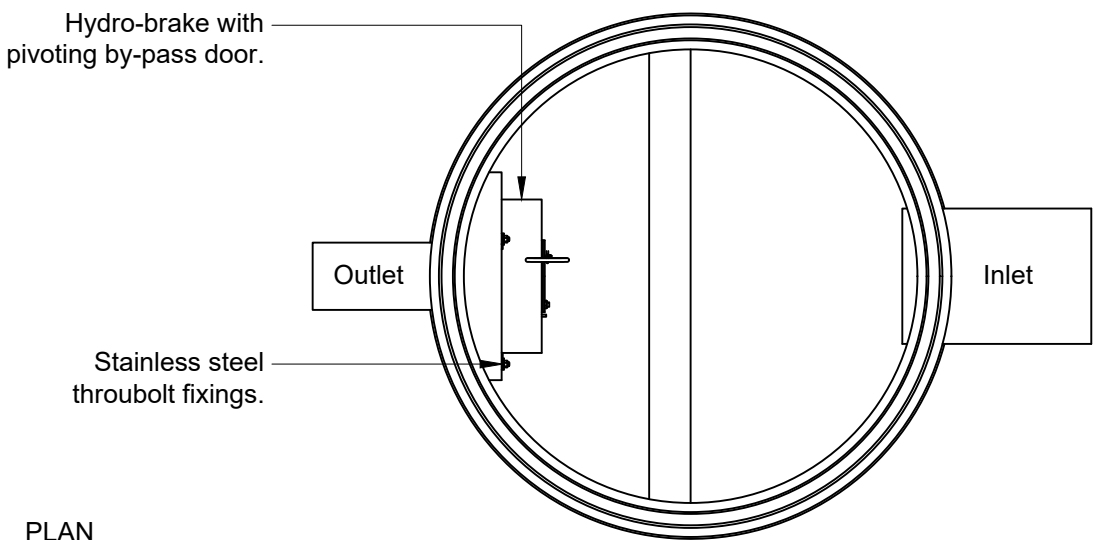


TYPICAL ROAD GULLY INSTALLATION DETAIL

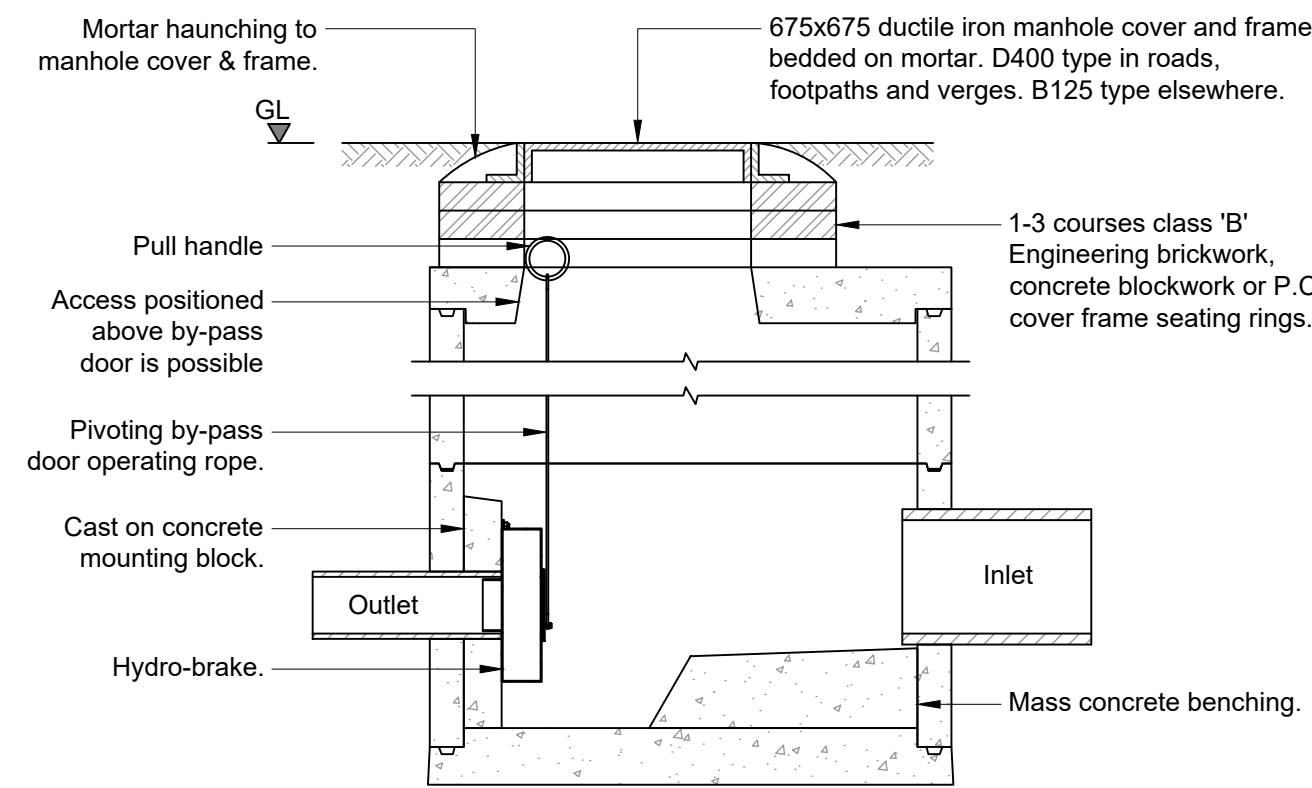
SCALE 1:20

ADDITIONAL NOTES:

- Manhole diameter to be as follows :
1200mm Ø (pipe Ø up to 300mm)
1350mm Ø (pipe Ø > 300mm up to 450mm)
1500mm Ø (pipe Ø > 450mm up to 525mm)
1800mm Ø (pipe Ø > 525mm up to 750mm)
2100mm Ø (pipe Ø > 750mm up to 900mm)
- 1050mm concrete rings may be used where the manhole is of a 'Straight Through' or 'Terminal' type, where the depth to invert does not exceed 2.5m and the pipe diameter is not greater than 150mm.
- Where the depth to the top of the benching exceeds 3.0m, a 'Type A' manhole shall be used.
- Manhole construction to be in accordance with the current editions of 'Sewers for Scotland' (Scotland) OR 'SSG Appendix C' (England & Wales).
- Top and bottom P.C. rings to be plain ended. Channel to be formed using pre-formed half channel.
- Where pipes are 600mm diameter or greater, handrail, safety chain and self cleaning toe holes to be provided.
- Connection to be made soffit/soffit where upstream pipe is smaller than outlet pipe. Invert/ invert when upstream pipe is equal or larger than outlet.
- A flexible pipe shall be provided as close as feasible to the outside face of the manhole. The next pipe away will be a rocker pipe. See Clause 4.6.6.2.
- Where there is no change in pipe diameter, the manhole invert shall follow the same gradient as the outgoing sewer.
- Step irons or otherwise to be fitted as required by the Authority's policy.



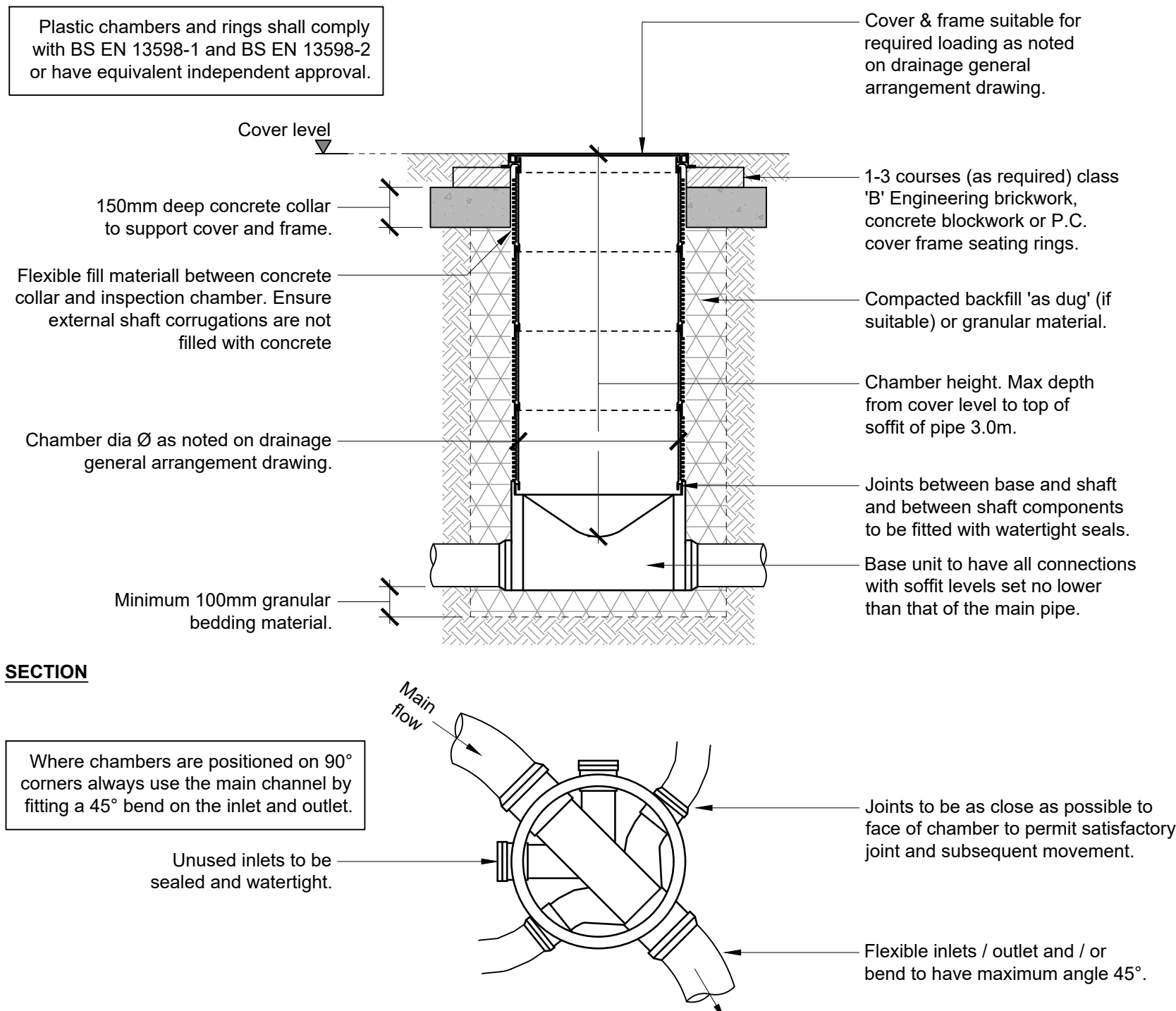
PLAN



SECTION

TYPICAL HYDROBRAKE CHAMBER DETAIL

SCALE 1:20



SECTION

PLAN

TYPICAL INSPECTION CHAMBER DETAIL (PPIC)

SCALE 1:20

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C02	27.06.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C01	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
REV.	DATE	REVISION DETAILS	INITIALS

CURRENT DRAWING REVISION CHECKED BY			
CURRENT DRAWING REVISION APPROVED BY			
		SP	AI

DRAWING STATUS:	PROJECT STAGE:
A4	STAGE 4

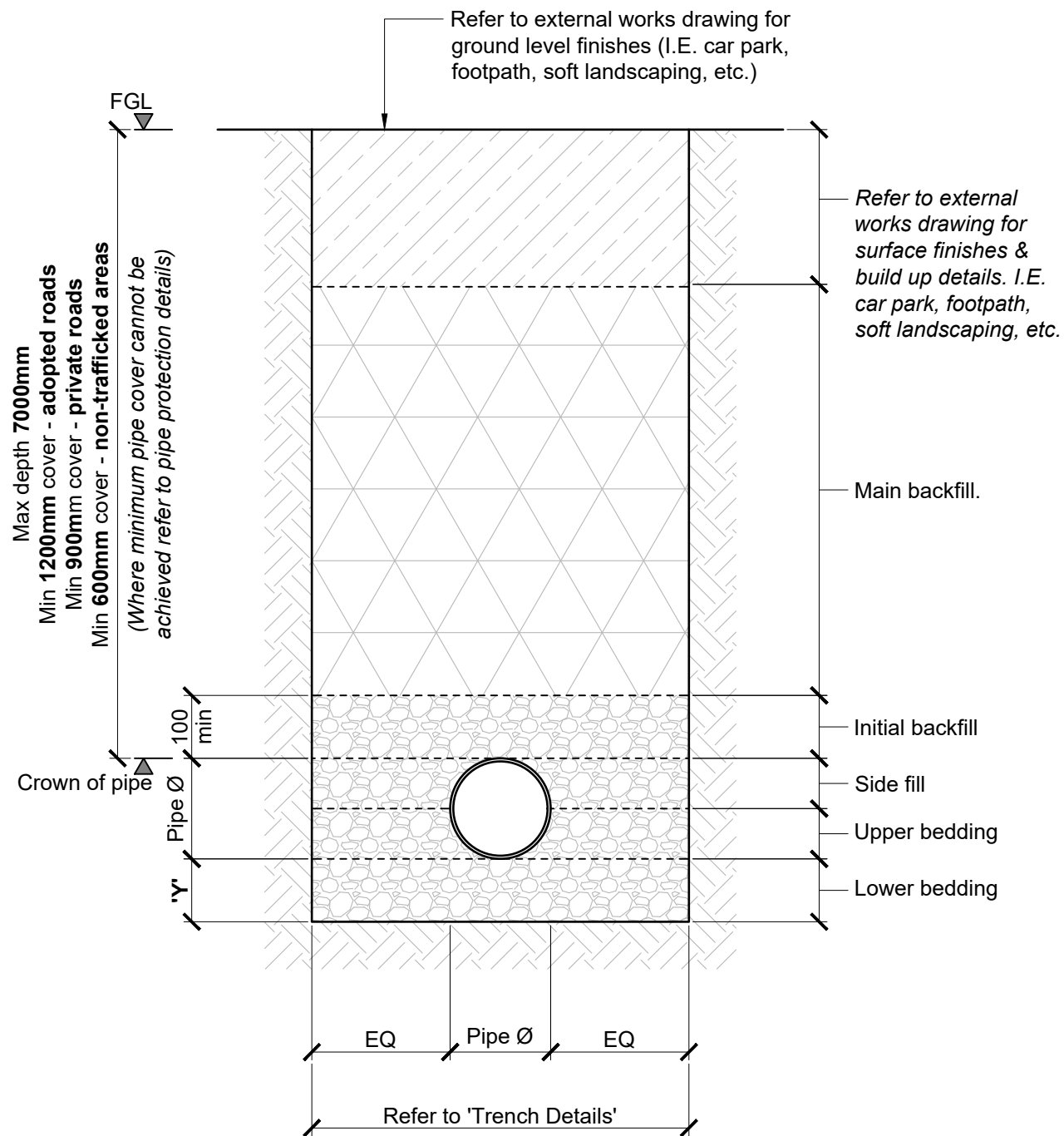
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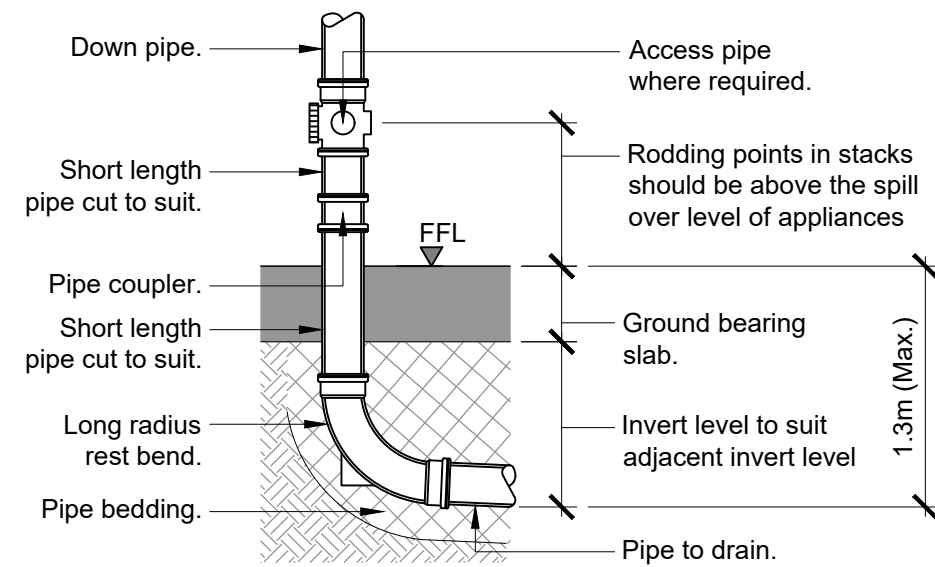
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PROJECT: Premier Inn West Didsbury				
TITLE: Drainage Details Sheet 1				
SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
As Noted	PA	Feb 25	C02	15094
DRAWING REF: 15094-BKP-XX-XX-DR-C-0590				



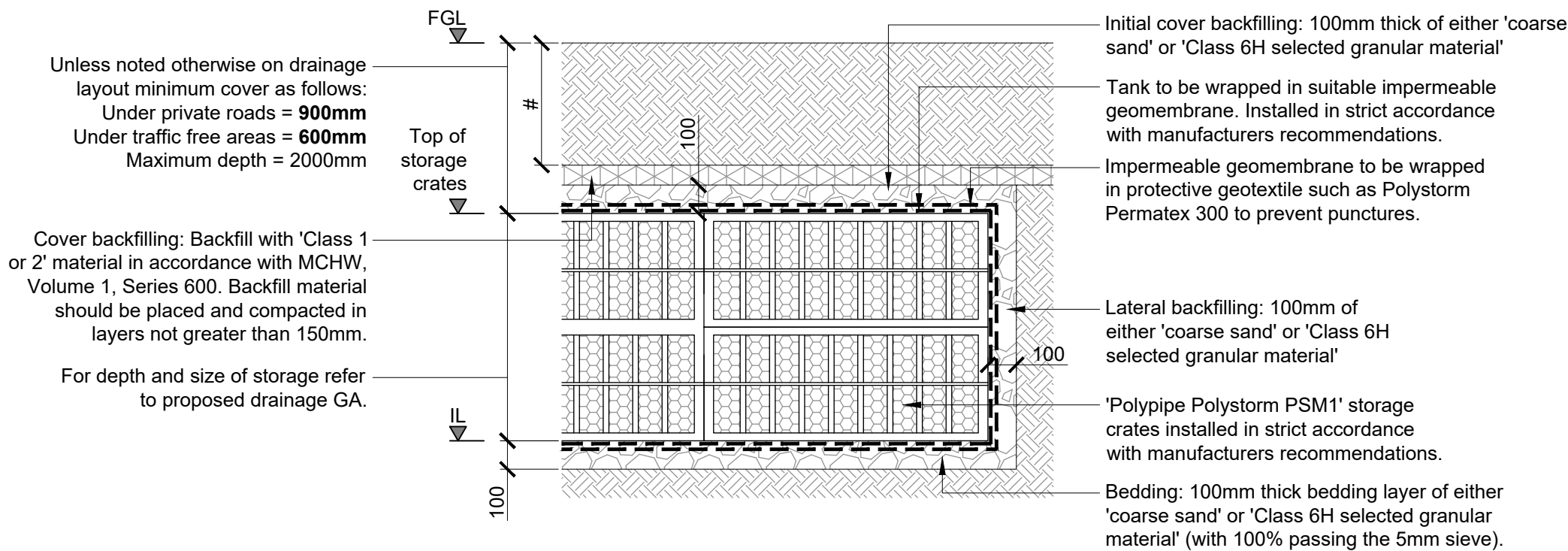
TYPICAL PIPE BEDDING DETAILS

SCALE 1:10



TYPICAL LONG BEND RADIUS DETAIL

SCALE 1:20

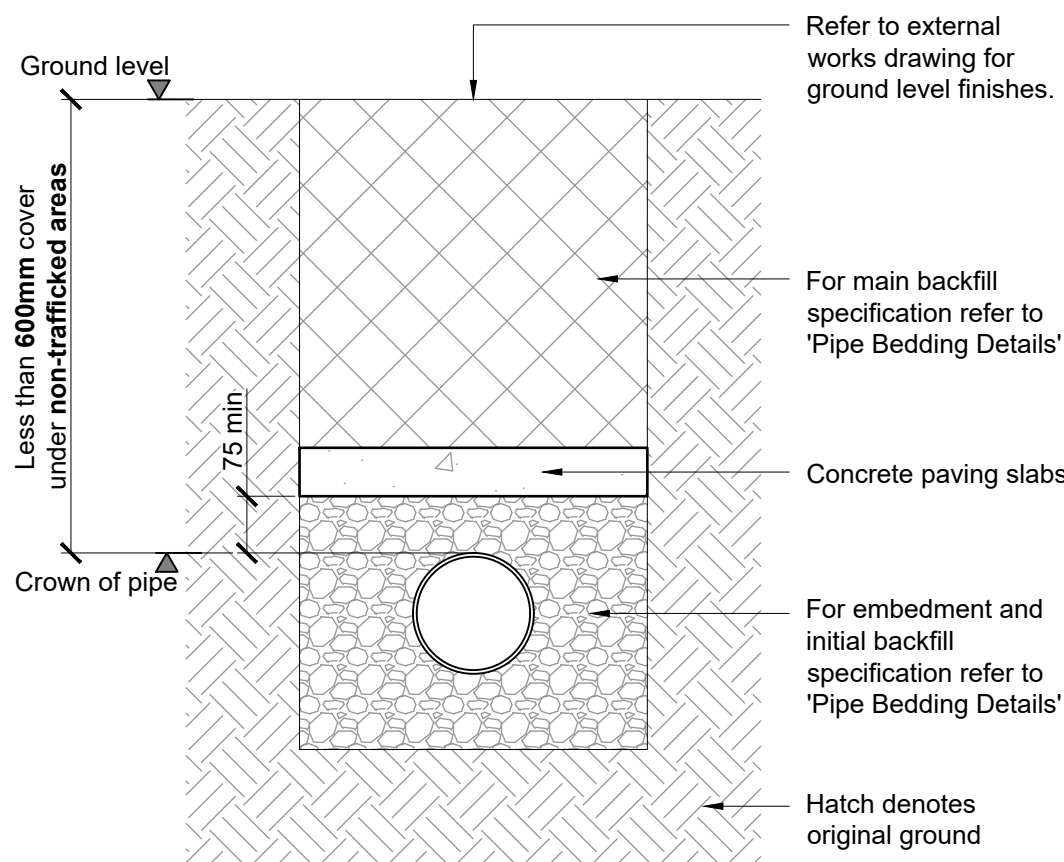


PARTIAL SECTION THROUGH ATTENUATION TANK

SCALE 1:20

TABLE 3 (refer to figure 2)	
MINIMUM LOWER BEDDING DEPTH	
TRENCH BED CONDITIONS	MINIMUM DEPTH ('Y')
Usual soil conditions	100mm
Rock or hard soil conditions	150mm
N.B. Information shown in 'Table 3' has been taken from 'BS EN 1610:2015 Construction and testing of drains and sewers - 7.2 Bedding construction types'	

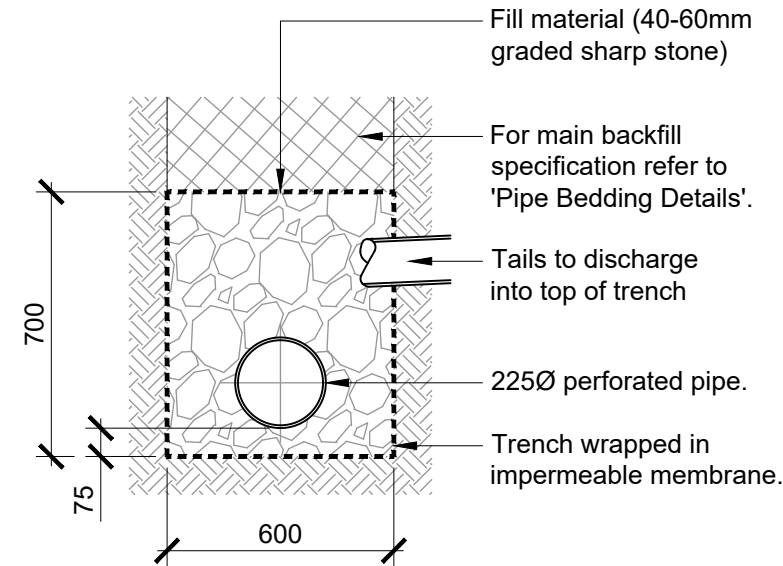
TABLE 4 (refer to figure 2)	
BEDDING & BACKFILL MATERIAL	
LOCATION	SUITABLE MATERIAL ('DN' denotes pipe Ø)
Main backfill	As dug material (native soil) may be used as long as it complies with BS EN 1610:2015 Construction and testing of drains and sewers - 5.2.2 Native soil' & 'BS 8000-14:1989 Section 3.3'. Initial 300mm of main backfill must be free from stones larger than 40mm, lumps of clay over 75mm, timber, frozen material & vegetable matter. N.B. No mechanical compaction to be applied until first 300mm of main backfill in place.
Initial backfill Side fill	Selected fill or granular fill free from stones larger than 40mm, lumps of clay over 75mm, timber, frozen material & vegetable matter. As dug material (native soil) may be used as long as it complies with BS EN 1610:2015 Construction and testing of drains and sewers - 5.2.2 Native soil' & 'BS 8000-14:1989 Section 3.2.3'. N.B. No mechanical compaction to be applied.
Upper bedding Lower bedding	Single sized or graded granular material (from 5mm) not exceeding: - 22mm for DN ≤ 200mm. - 40mm for DN > 200mm up to DN ≤ 600mm. - 60mm for DN > 600mm. - For DN < 100mm all written instructions of the manufacturer shall be complied with. N.B. No mechanical compaction to be applied.
N.B. Information shown in 'Table 4' has been taken from 'BS EN 1610:2015 Construction and testing of drains and sewers' & 'BS 8000-14:1989'	
N.B. Assumed normal ground conditions. Special bedding construction will be required where the trench formation has little bearing strength, i.e. Soft ground, running sand, etc. Booth King Partnership Limited to be contacted for revised bedding detail in this circumstance.	
N.B. Booth King Partnership Limited advise installer to refer to plastic pipe manufactures specific bedding details to ensure minimum bedding & backfilling requirements are met.	
ALL MATERIAL TO BE PLACED & COMPACTED AS SPECIFIED IN 'BS 8000-14:1989, SECTION 3'	



PIPE PROTECTION DETAIL FOR SHALLOW PIPES

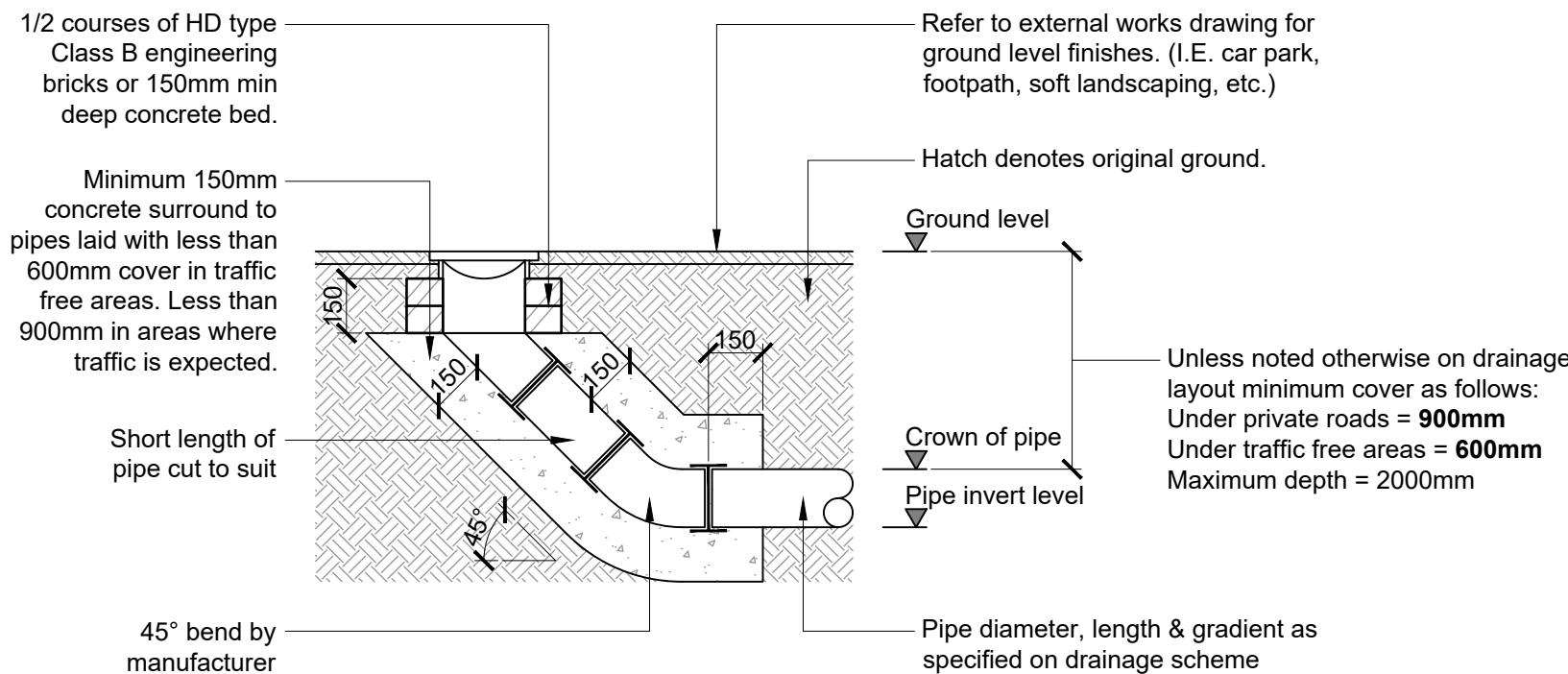
(Non-trafficked areas)

SCALE 1:10



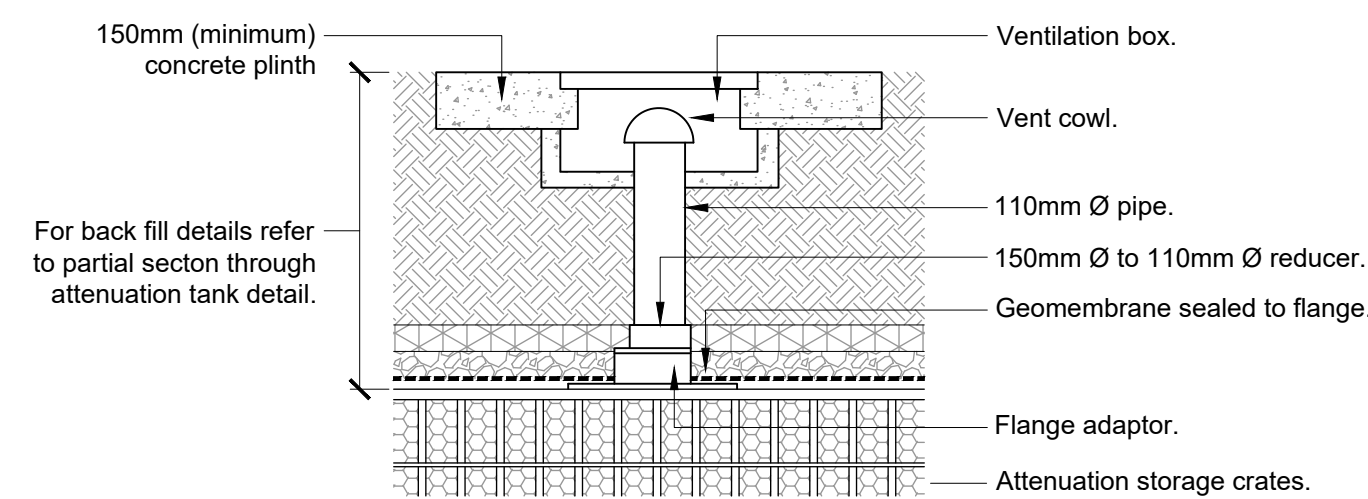
TYPICAL FILTER TRENCH DETAIL

SCALE 1:20



TYPICAL EXTERNAL RODDING EYE DETAIL

SCALE 1:20



NOTE:
It is recommended that one vent pipe, 110mm in diameter, is provided per 7,500 square meters of impermeable catchment area on a site.

TYPICAL ATTENUATION TANK VENT DETAIL

SCALE 1:20

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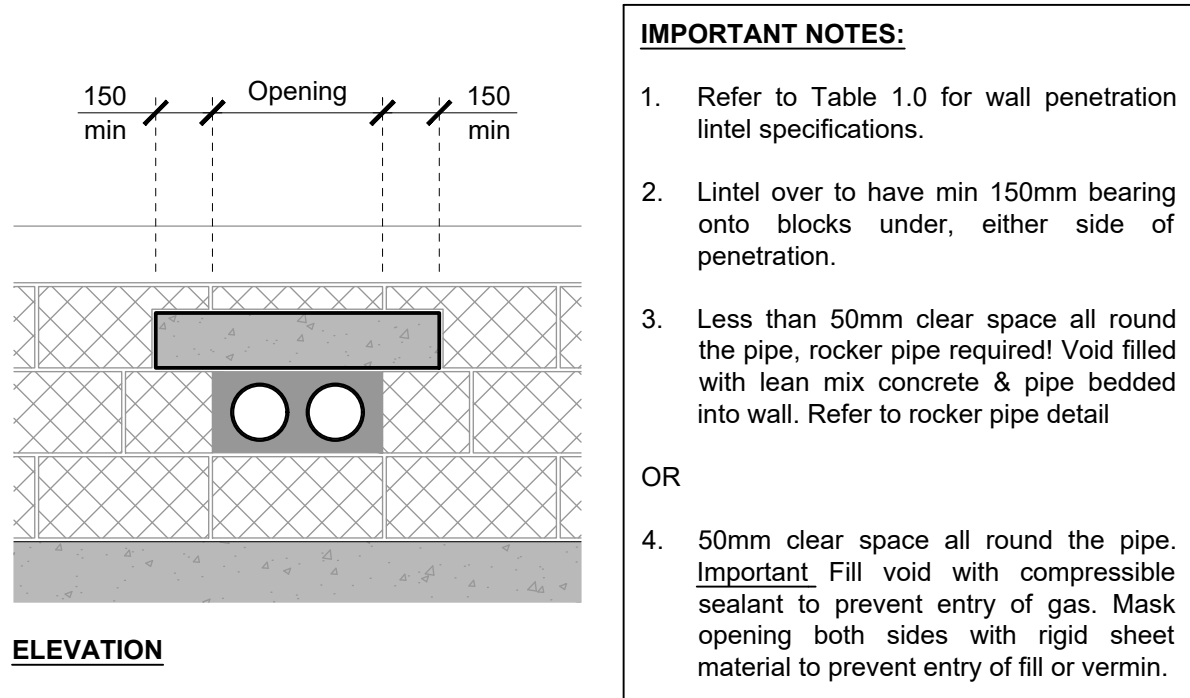
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C01	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
REV.	DATE	REVISION DETAILS	INITIALS
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CURRENT DRAWING REVISION APPROVED BY AI			
DRAWING STATUS: A4		PROJECT STAGE: STAGE 4	

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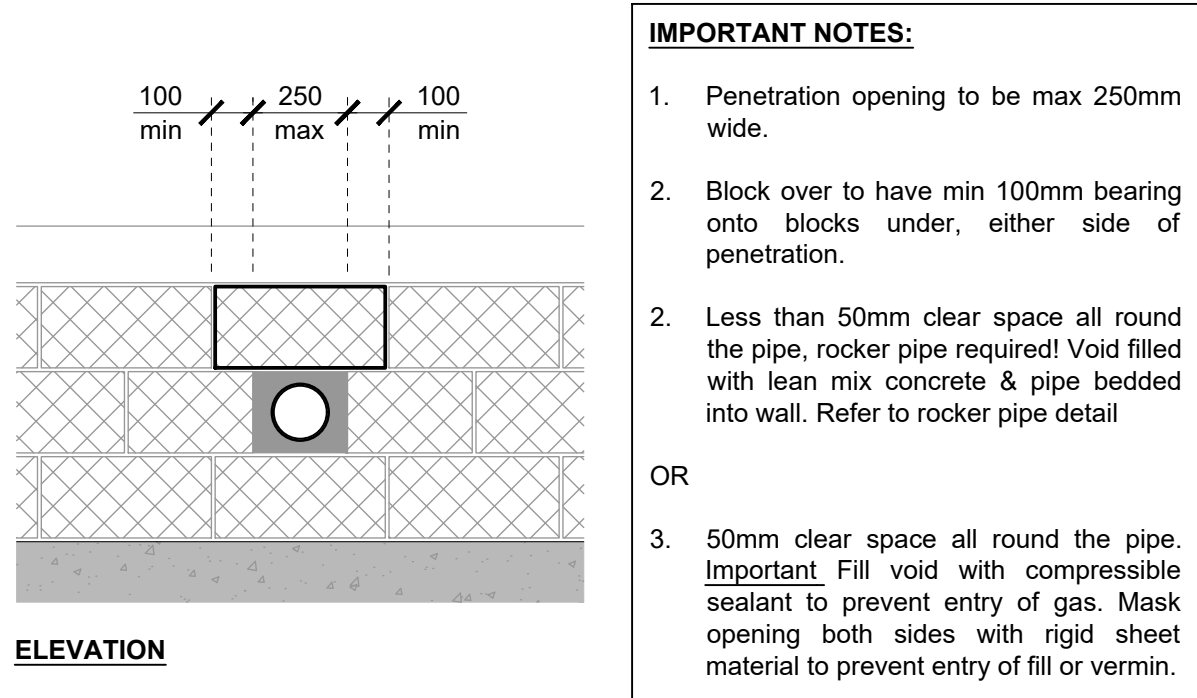
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PROJECT: Premier Inn West Didsbury				
TITLE: Drainage Details Sheet 2				
SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
As Noted	PA	Feb 25	C02	15094
DRAWING REF: 15094-BKP-XX-XX-DR-C-0591				

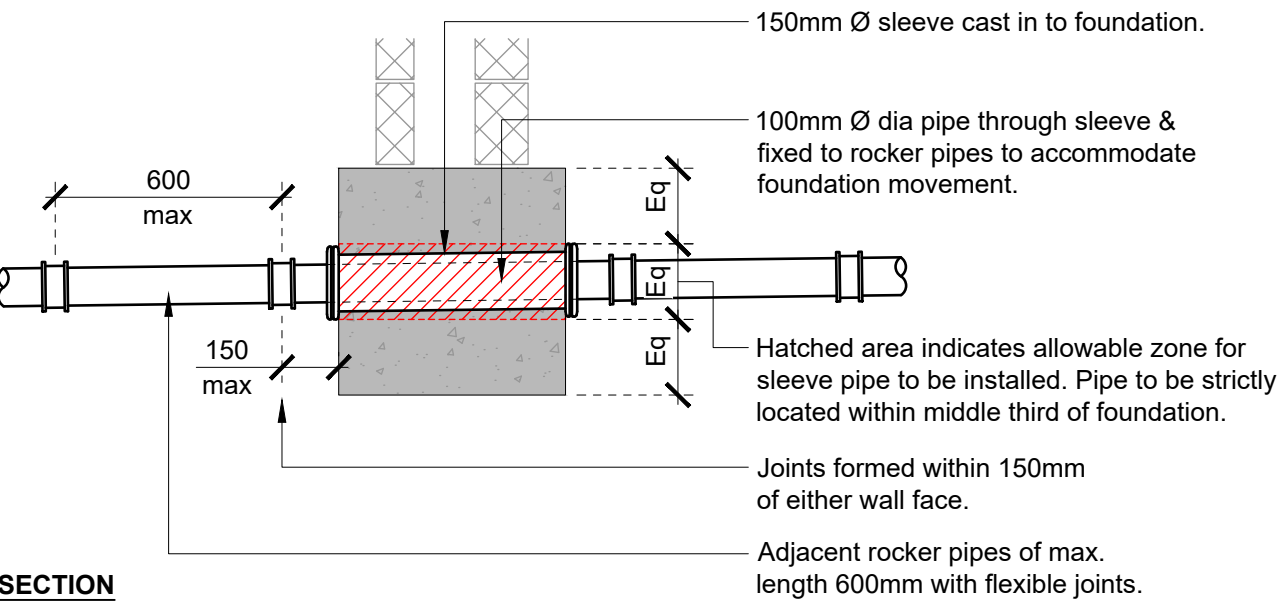
TABLE 1.0 - WALL PENETRATION LINTEL SPECIFICATIONS		
WALL THICKNESS (MM)	OPENING WIDTH (MM)	LINTEL SPECIFICATION
100	> 250 < 750	1No. Naylor R9 precast concrete lintel
140	> 250 < 750	1No. Naylor R9 precast concrete lintel
215	> 250 < 750	1No. Naylor R9 precast concrete lintel
> denotes greater than, < denotes lesser than.		



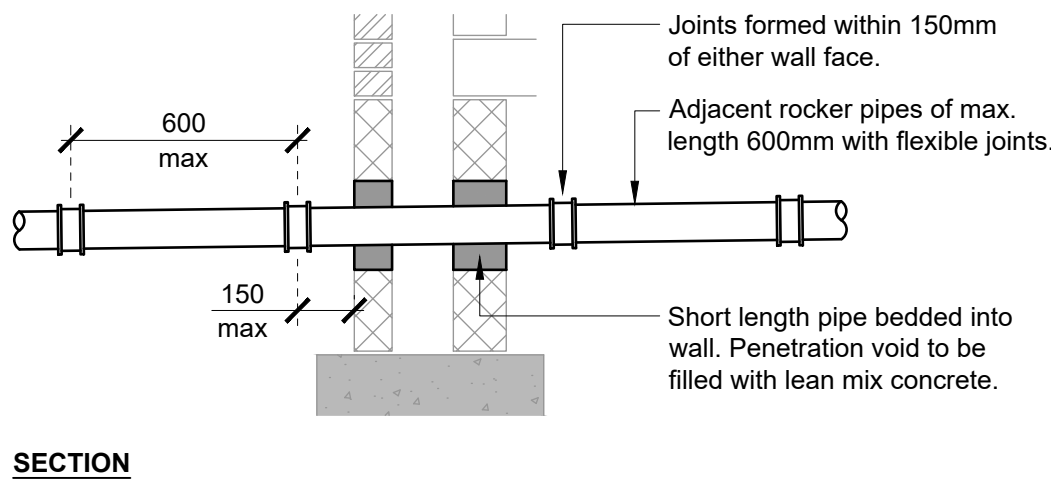
WALL PENETRATION DETAIL - OPENING MORE THAN 250mm
SCALE 1:20



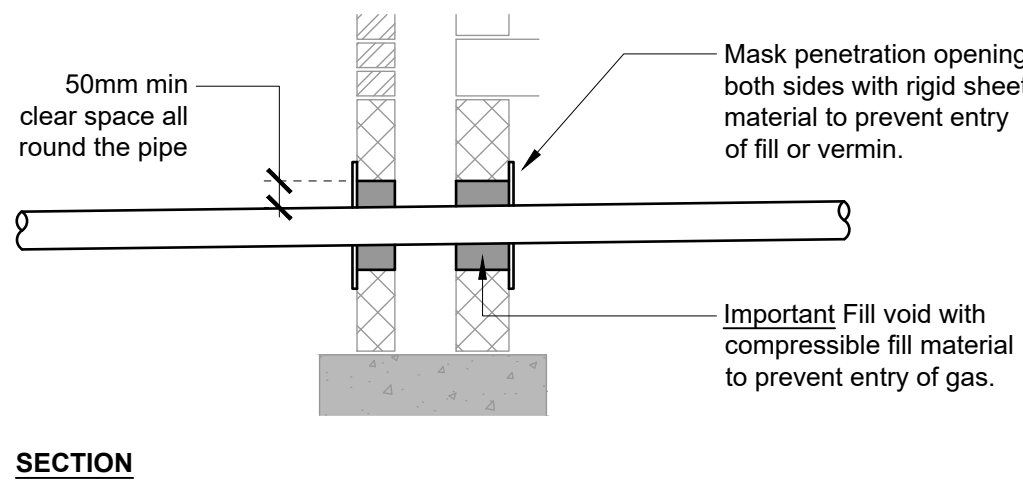
WALL PENETRATION DETAIL - OPENING LESS THAN 250mm
SCALE 1:20



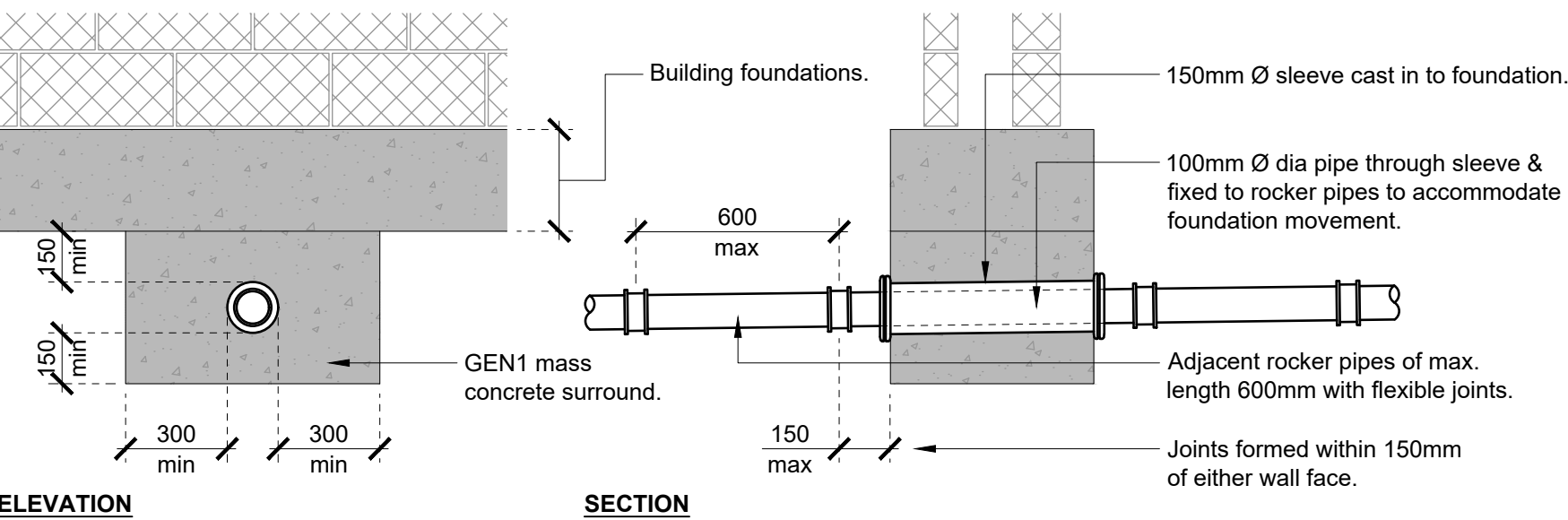
FOUNDATION PENETRATION DETAIL - THROUGH FOUNDATION
SCALE 1:20



WALL PENETRATION DETAIL - ROCKER PIPE DETAIL
SCALE 1:20



WALL PENETRATION DETAIL - CLEAR SPACE TO PIPE
SCALE 1:20



FOUNDATION PENETRATION DETAIL - UNDER FOUNDATION
SCALE 1:20

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C02	27.06.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C01	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
REV.	DATE	REVISION DETAILS	INITIALS
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CURRENT DRAWING REVISION APPROVED BY			AI
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A4		STAGE 4	

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PROJECT:

Premier Inn
West Didsbury

TITLE:

Drainage Details
Sheet 3

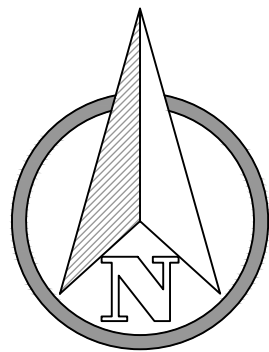
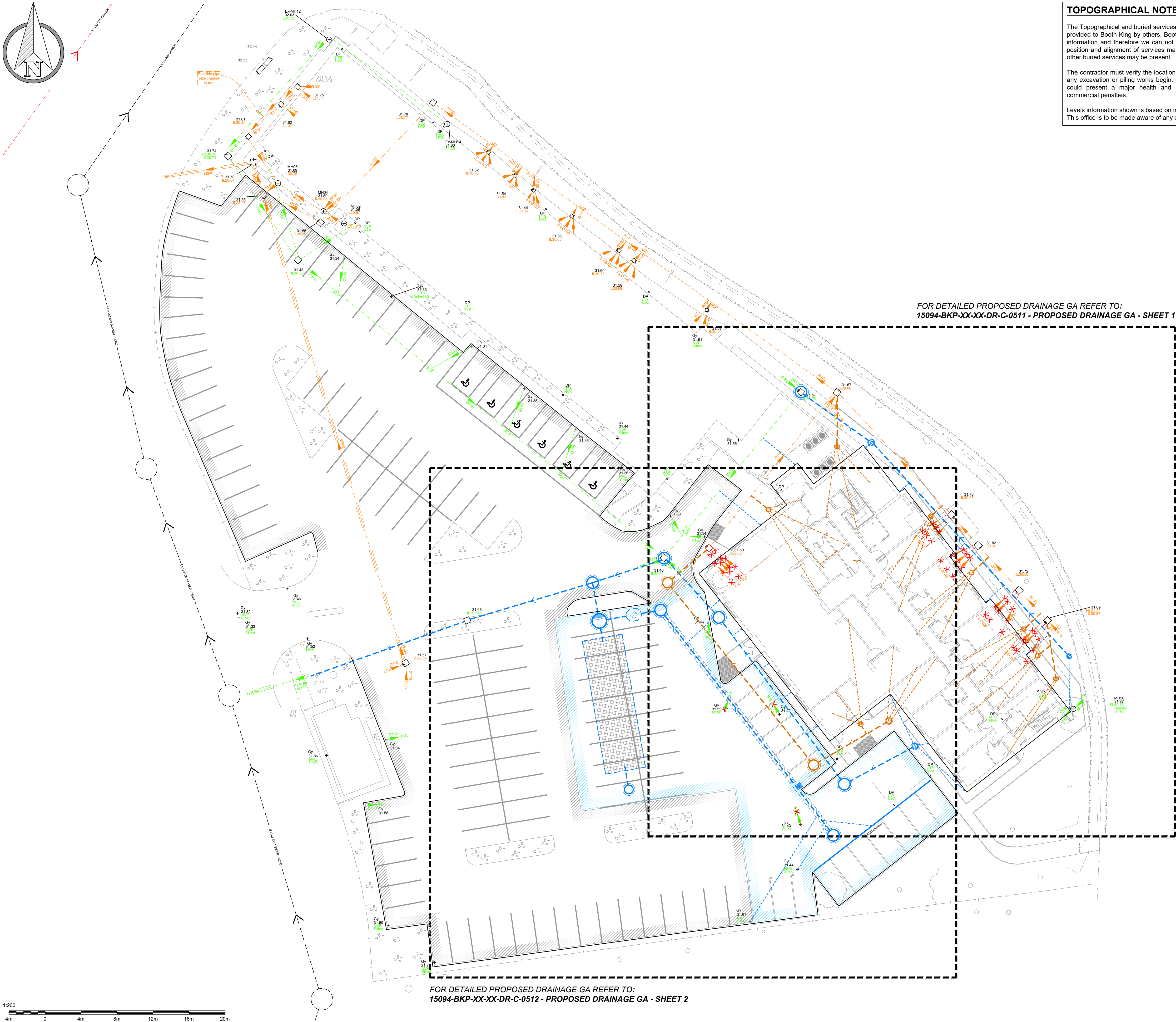
SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
As Noted	PA	Feb 25	C02	15094

DRAWING REF:

15094-BKP-XX-XX-DR-C-0592

APPENDIX F

PROPOSED DRAINAGE GASs



TOPOGRAPHICAL NOTES:

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FOR DETAILED PROPOSED DRAINAGE GA REFER TO:
15094-BKP-XX-XX-DR-C-0511 - PROPOSED DRAINAGE GA - SHEET 1

C05	15.08.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C04	27.06.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C03	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
C02	03.09.24	STAGE 3 - PLANNING APPROVAL	PA
C01	12.06.24	STAGE 3 - PLANNING APPROVAL	CM
REV.	DATE	REVISION DETAILS	INITIALS
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DRAWING STATUS:	PROJECT STAGE:
A4	STAGE 4

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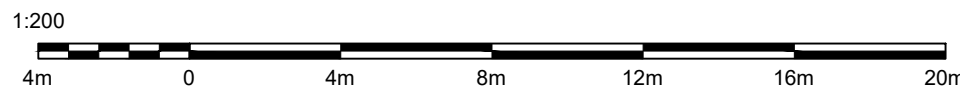
PROJECT:
**Premier Inn Extension
Manchester West Didsbury**

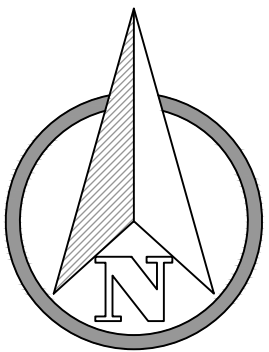
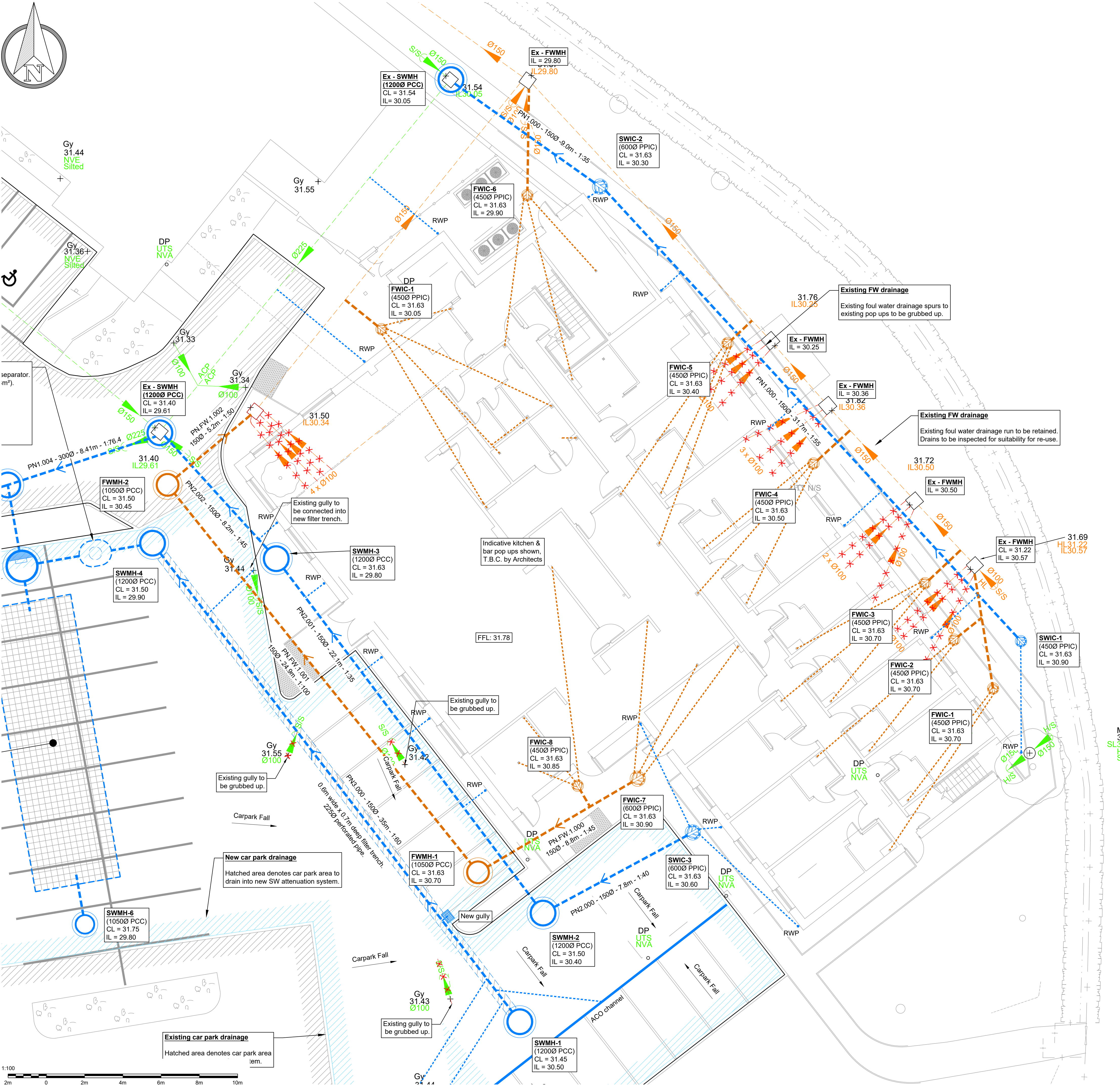
TITLE:
Drainage Key Plan

SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
1:200	PA	June 24	C05	15094

DRAWING REF:
15094-BKP-XX-XX-DR-C-0510

FOR DETAILED PROPOSED DRAINAGE GA REFER TO:
15094-BKP-XX-XX-DR-C-0512 - PROPOSED DRAINAGE GA - SHEET 2





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DRAINAGE NOTES:

- All adoptable works to be in accordance with SSG appendix C where applicable.
- All manhole cover levels to be confirmed by Architect.
- Clay pipes to be flexibly jointed and comply with the requirements of BS EN 295.
- Concrete pipes to be flexibly jointed and comply with the requirements of BSEN 1916 and BS 5911.
- Plastic pipes (PVC-U) to be flexibly jointed and comply with the requirements of BS EN 1401-1 1998.
- All surface water pipes to be laid at a gradient no flatter than 1:80 (UNO).
- All foul water pipes to be laid at a gradient no flatter than 1:40 (UNO).
- For minimum depths requiring pipe protection refer to drainage details drawings.
- Protection to drains and gully connections may be concrete bed surround between cover depths of 450mm to 200mm.
- Until final surface is placed, heavy traffic is not to be allowed over pipe trenches without special precautions.
- Pipes and fittings are to be laid in accordance with the manufacturers recommendations.
- All Manholes should be concrete manhole rings (UNO).
- All SVP & RWP positions TBC by Architect.
- Rodding access is to be provided at all pop-ups.
- For setting out of all pop-up positions refer to Architect's details.
- Civil engineering contractor to arrange for:
 - Own services and temporary supplies.
 - Pathway & partial closure as deemed required by their method statement. Including costs.
 - Temporary adequate over pumping as deemed required by civil engineers method of construction.
- The contractor should confirm the locations for existing services prior construction.

DRAINAGE ANNOTATION KEY:

REF.	DESCRIPTION
SW	Surface water drainage
FWC	Foul water drainage
W	Combined water drainage
MH	Manhole
IC	Inspection chamber
PCC	Precast concrete chamber
PPIC	Polypropylene inspection chamber
GU	Gully
CL	Cover level (m)
IL	Invert level (m)
SVP	Soil vent pipe
PU	Pop up
RWP	Rainwater downpipe

DRAINAGE LINE TYPES KEY:

REF.	DESCRIPTION
---	Existing FW network
---	Existing SW network
- x x x x x -	Existing drainage to be grubbed up
---	Proposed FW network
---	Proposed SW network

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C04	27.06.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C03	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
C02	03.09.24	STAGE 3 - PLANNING APPROVAL	PA
C01	12.06.24	STAGE 3 - PLANNING APPROVAL	CM
REV.	DATE	REVISION DETAILS	INITIALS
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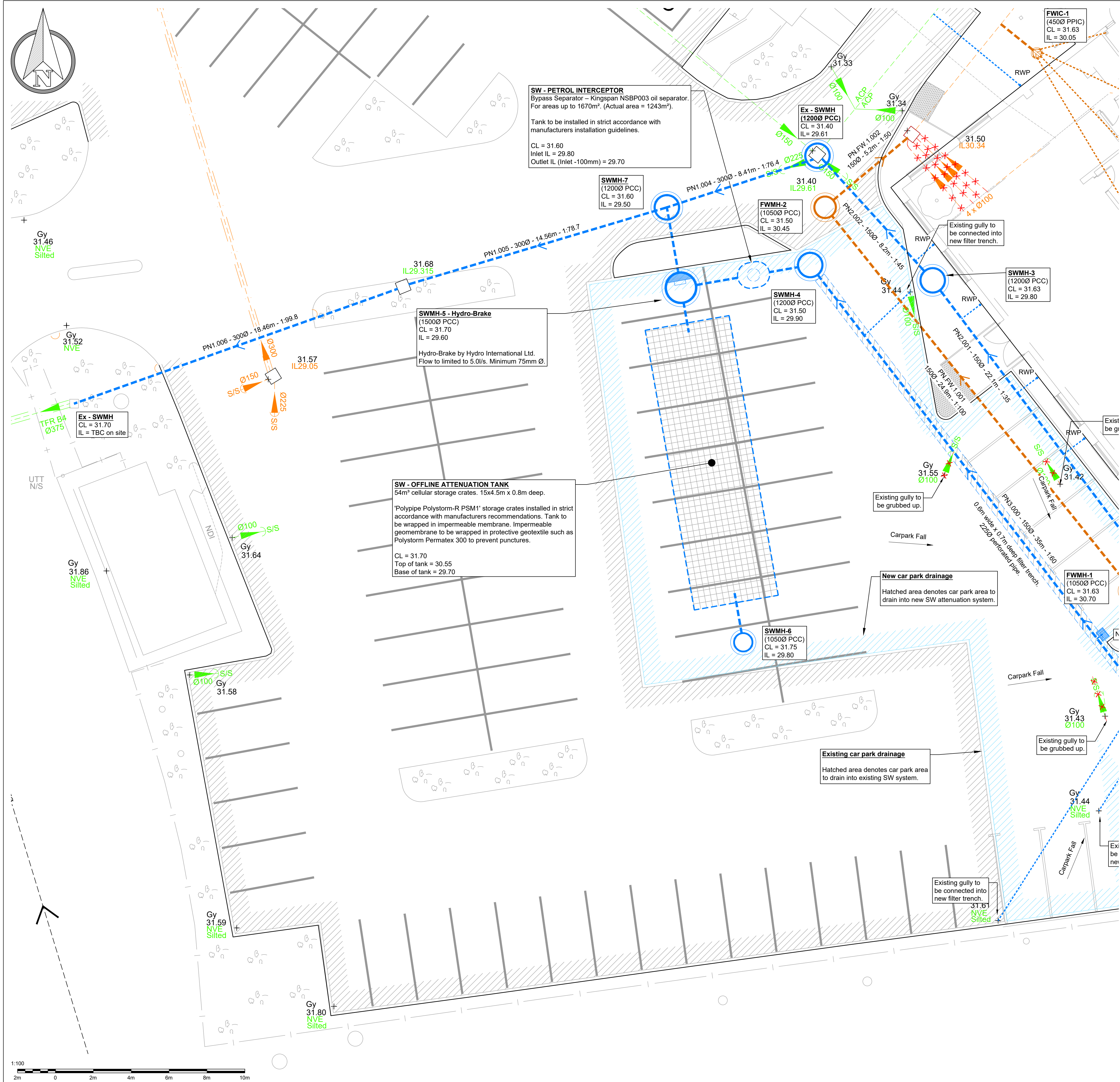
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PROJECT:
**Premier Inn Extension
Manchester West Didsbury**

TITLE:
**Proposed Drainage GA
Sheet 1**

SCALE (A1)	AUTHOR	DATE	REVISION	BKPL No.
1:100	PA	June 24	C05	15094

DRAWING REF:
15094-BKP-XX-XX-DR-C-0511



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- This document uses project stages in accordance with the IStructE Structural Plan of Work 2020: 2 - Concept, 3 - Coordination, 4 - Technical Design, 4.5 - Production Design, 5 - Construction, 6 - Handover.
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C05	14.08.25	STAGE 4 - ISSUED FOR CONSTRUCTION	EZ
C04	27.06.25	STAGE 4 - ISSUED FOR CONSTRUCTION	PA
C03	17.03.25	STAGE 3 - ISSUED FOR TENDER	PA
C02	03.09.24	STAGE 3 - PLANNING APPROVAL	PA
C01	12.06.24	STAGE 3 - PLANNING APPROVAL	CM

REV.	DATE	REVISION DETAILS	INITIALS
		CURRENT DRAWING REVISION CHECKED BY	SP
		CURRENT DRAWING REVISION APPROVED BY	AI

DRAWING STATUS:	PROJECT STAGE:
A4	STAGE 4

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PROJECT:
**Premier Inn Extension
Manchester West Didsbury**

TITLE:
**Proposed Drainage GA
Sheet 2**

SCALE (A1) | AUTHOR | DATE | REVISION | BKPL No.
1:100 | PA | June 24 | C05 | 15094

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