

Project: Mendalgief Road Newport	Date: 09/05/2025		
	Designed by: SMS	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: JPG Group 5 John Charles Way, Leeds LS12 6QA		



1:100+50CC: 100 years: Increase Rainfall (%): +50: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
004	1:100+50CC: 100 years: +50 %: 15 mins: Winter	8.714	7.950	8.236	0.286	0.0	0.045	0.000	0.0	0.000	OK
005	1:100+50CC: 100 years: +50 %: 15 mins: Winter	8.709	7.560	8.127	0.567	15.2	0.090	0.000	10.4	6.650	Surcharged
006	1:100+50CC: 100 years: +50 %: 15 mins: Winter	8.709	7.395	8.074	0.679	19.0	0.108	0.000	16.0	10.287	Surcharged
007	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	8.843	7.035	7.915	0.880	1.7	0.140	0.000	1.7	83.851	Surcharged
008	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	8.734	6.915	7.915	1.000	1.7	0.159	0.000	4.9	83.821	Surcharged
009	1:100+50CC: 100 years: +50 %: 2880 mins: Winter	8.654	6.630	7.914	1.284	8.7	0.204	0.000	2.6	175.352	Surcharged
011	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	8.524	5.880	7.914	2.034	4.4	2.300	0.000	4.4	223.863	Surcharged
001	1:100+50CC: 100 years: +50 %: 15 mins: Summer	8.722	7.960	7.960	0.000	0.0	0.000	0.000	0.0	0.000	OK
002	1:100+50CC: 100 years: +50 %: 15 mins: Winter	8.701	7.575	7.960	0.385	14.4	0.061	0.000	14.2	6.250	OK
003	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	8.559	7.205	7.915	0.710	1.0	0.113	0.000	1.0	50.581	Surcharged
010	1:100+50CC: 100 years: +50 %: 1440 mins: Winter	8.005	6.330	7.914	1.584	6.4	1.792	0.000	1.2	60.375	Flood Risk
014	1:100+50CC: 100 years: +50 %: 1440 mins: Winter	8.559	7.055	7.108	0.053	3.5	0.060	0.000	3.5	66.722	OK
Outfall	1:100+50CC: 100 years: +50 %: 1440 mins: Winter		6.940	6.989	0.049	3.5			3.5	66.722	OK
012	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	7.912	5.985	7.914	1.929	14.9	3.835	1.656	2.4	130.574	Flood
013-SPS	1:100+50CC: 100 years: +50 %: 2880 mins: Winter	8.525	5.585	7.913	2.328	3.7	5.924	0.000	3.5	132.099	Surcharged
Simple Junction	1:100+50CC: 100 years: +50 %: 2160 mins: Winter		7.105	7.914	0.809	4.8			0.1	0.969	Surcharged
Simple Junction (1)	1:100+50CC: 100 years: +50 %: 2160 mins: Winter		6.770	7.914	1.144	4.4			0.1	1.170	Surcharged
Simple Junction (2)	1:100+50CC: 100 years: +50 %: 2160 mins: Winter		6.656	7.914	1.258	0.4			6.0	2.298	Surcharged

Project: Mendalgief Road Newport	Date: 09/05/2025			
	Designed by:	Checked by:	Approved By:	
	SMS			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: JPG Group 5 John Charles Way, Leeds LS12 6QA			



1:100+50CC: 100 years: Increase Rainfall (%): +50: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Tank	1:100+50CC: 100 years: +50 %: 2160 mins: Winter	7.914	7.911	7.913	1.809	1.806	105.2	233.837	0.034	0.000	3.8	122.478	0.133

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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: JPG Group 5 John Charles Way, Leeds LS12 6QA			

Status
OK

Project: Mendalgief Road Newport	Date: 09/05/2025		
	Designed by: SMS	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: JPG Group 5 John Charles Way, Leeds LS12 6QA		





1:100+50CC: 100 years: Increase Rainfall (%): +50: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
2.000	1:100+50CC: 100 years: +50 %: 15 mins: Summer	Pipe	004	005	8.714	7.970	0.091	0.000	0.0	0	0.0	OK
2.001	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	005	006	8.709	8.127	0.150	6.316	0.8	0.53	10.4	Surchar ged
2.002	1:100+50CC: 100 years: +50 %: 15 mins: Summer	Pipe	006	007	8.709	7.999	0.150	9.391	0.9	0.89	16.5	Surchar ged
2.003	1:100+50CC: 100 years: +50 %: 30 mins: Summer	Pipe	007	008	8.843	7.623	0.150	20.948	1.4	1.22	25.1	Surchar ged
2.004	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	008	009	8.734	7.626	0.150	16.282	1.5	0.98	26.5	Surchar ged
1.003	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	009	011	8.654	7.392	0.150	32.221	3.0	0.93	52.9	Surchar ged
1.000	1:100+50CC: 100 years: +50 %: 15 mins: Summer	Pipe	001	002	8.722	7.960	0.042	0.000	0.0	0	0.0	OK
1.001	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	002	003	8.701	7.960	0.128	6.250	0.9	0.62	14.2	OK
1.002	1:100+50CC: 100 years: +50 %: 15 mins: Summer	Pipe	003	009	8.559	7.623	0.150	8.878	1.1	0.66	18.7	OK
3.001	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	010	011	8.005	7.131	0.150	12.111	1.3	1.19	22.3	Surchar ged
1.006	1:100+50CC: 100 years: +50 %: 1440 mins: Winter	Pipe	014	Outfall	8.559	7.108	0.051	66.722	0.9	0.5	3.5	OK
1.004	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	011	Tank	8.524	6.524	0.143	43.591	2.2	0.46	74.6	OK
1.005	1:100+50CC: 100 years: +50 %: 15 mins: Winter	Pipe	012	Tank	7.912	6.473	0.186	25.911	1.2	0.71	56.2	OK
1.005 (1)	1:100+50CC: 100 years: +50 %: 7200 mins: Winter	Pipe	Tank	013-SPS	8.265	7.702	0.300	216.982	1.8	1.39	128.6	Surchar ged
Rising Main	1:100+50CC: 100 years: +50 %: 1440 mins: Winter	Pipe	013-SPS	014	8.525	7.905	0.011	66.723	0.0	0.19	3.5	Surchar ged
4.000	1:100+50CC: 100 years: +50 %: 2880 mins: Winter	Pipe	Simple Junction (1)	012	6.920	7.913	0.150	0.000	0.4	0.4	7.5	Surchar ged
5.000	1:100+50CC: 100 years: +50 %: 10080 mins: Summer	Pipe	Simple Junction (2)	012	6.806	7.701	0.150	0.000	0.5	0.24	8.0	Surchar ged
3.000	1:100+50CC: 100 years: +50 %: 2880 mins: Winter	Pipe	Simple Junction	010	7.225	7.913	0.150	0.000	0.3	0.25	4.6	Surchar ged



Appendix K SuDS Mitigation Indices

Project Number: 6375
By: SMS
Date: 05.08.24



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The SuDS Manual - Table 26.2 Pollution hazard indices for different land use classifications

Category	Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydrocarbons
1	Residential roofs.	Very low	0.2	0.2	0.05
2	Other roofs (typically commercial/industrial roofs).	Low	0.3	0.2	0.05
3	Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day.	Low	0.5	0.4	0.4
4	Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways.	Medium	0.7	0.6	0.7
5	Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways.	High	0.8	0.8	0.9

Summary	
Category	3
Pollution hazard level	Low
Total suspended solids (TSS)	0.5
Metals	0.4
Hydrocarbons	0.4



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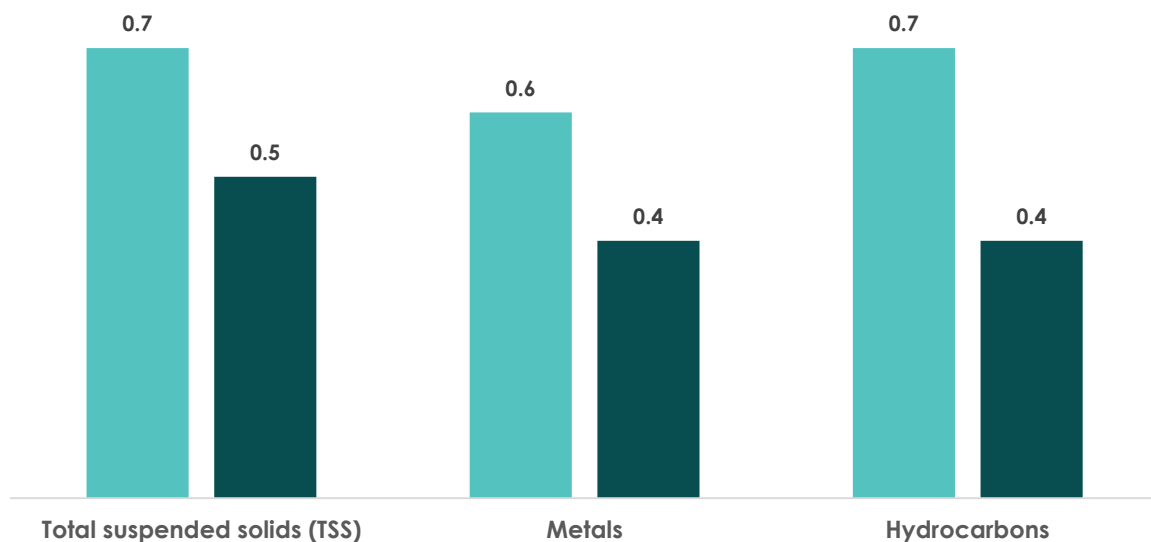
The SuDS Manual - Table 26.3 Indicative SuDS mitigation indices for discharges to surface waters

Type of SuDS component	Mitigation indices		
	Total suspended solids (TSS)	Metals	Hydrocarbons
Filter strip	0.4	0.4	0.5
Filter drain	0.4	0.4	0.4
Swale	0.5	0.6	0.6
Bioretention system	0.8	0.8	0.8
Permeable pavement	0.7	0.6	0.7
Detention basin	0.5	0.5	0.6
Pond	0.7	0.7	0.5
Wetland	0.8	0.8	0.8
Proprietary treatment system 1	0	0	0
Proprietary treatment system 2	0	0	0
Proprietary treatment system 3	0	0	0
None	0	0	0

SuDS components	Mitigation indices		
	Total suspended solids (TSS)	Metals	Hydrocarbons
(1) Permeable pavement	0.7	0.6	0.7
(2) None	0	0	0
(3) None	0	0	0
Total mitigation indices	0.7	0.6	0.7
Required mitigation indices	0.5	0.4	0.4

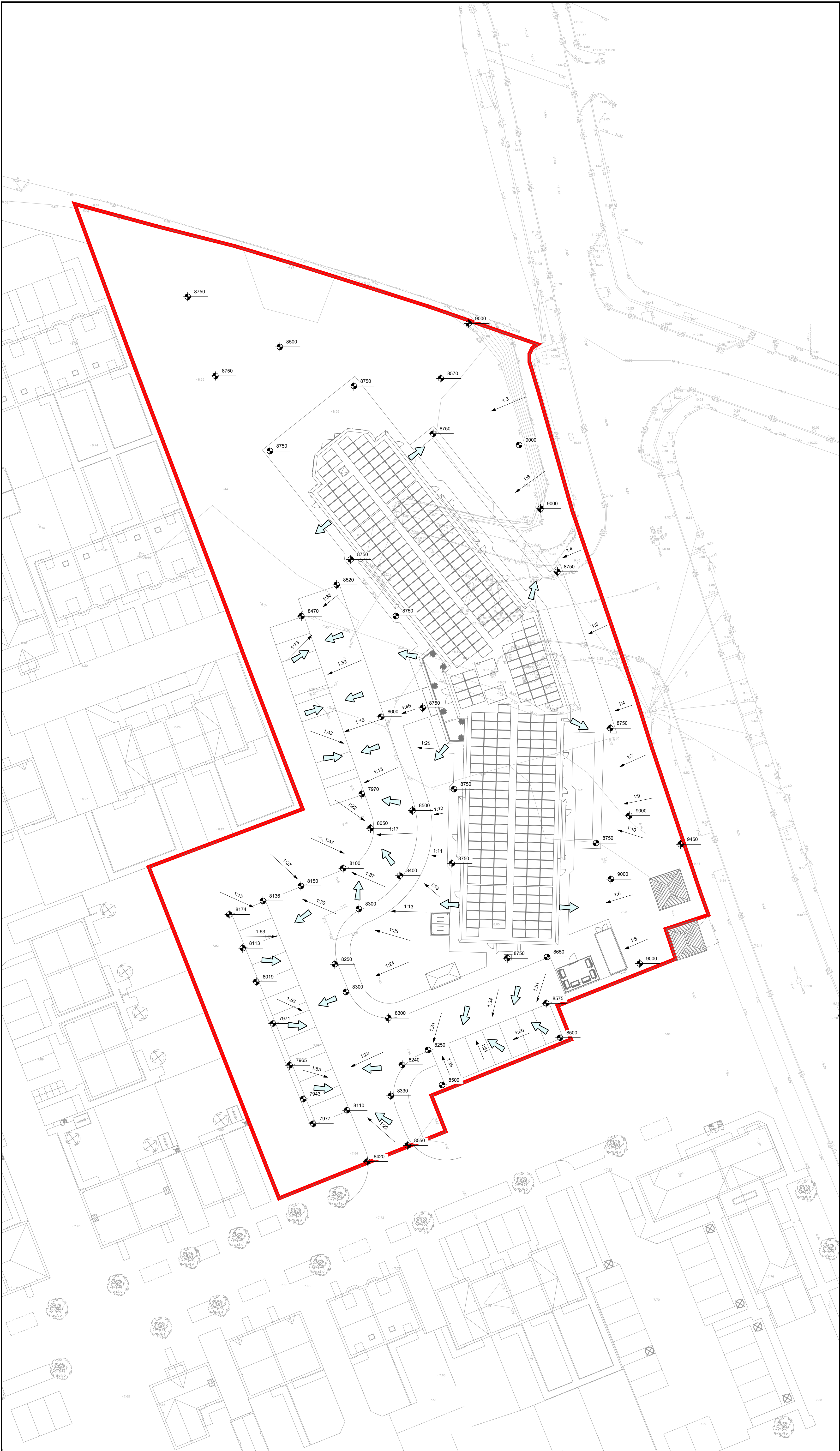


■ Total mitigation indices ■ Required mitigation indices





Appendix L Overland Flow Plan



OVERLAND FLOW PLAN

SCALE 1:250

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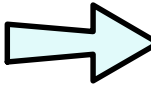
DO NOT SCALE (A1)

NOTES

GENERAL NOTES

- ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
- ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

LEGEND



DENOTES FLOOD EXCEEDANCE ROUTE

NOTE
SITE LEVELS AND GRADIENTS ARE SHOWN TO LNT
CONSTRUCTIONS DESIGN

0m 6.25m 12.5m
SCALE 1:250

P02	UPDATED TO NEW ARRANGEMENT	12.05.25		SMS
P01	FIRST ISSUE	07.08.24	RMR	SMS
REV	DESCRIPTION	DATE	CHK	BY

Project
MENDALGIEF ROAD
NEWPORT

Drawing Title
OVERLAND FLOW PLAN

INFORMATION



6375-JPG-ZZ-ZZ-DR-D-1455

S2

P01



Appendix M Foul Water Drainage Strategy

DO NOT SCALE (A1)

NOTES

GENERAL NOTES

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DRAINAGE NOTES

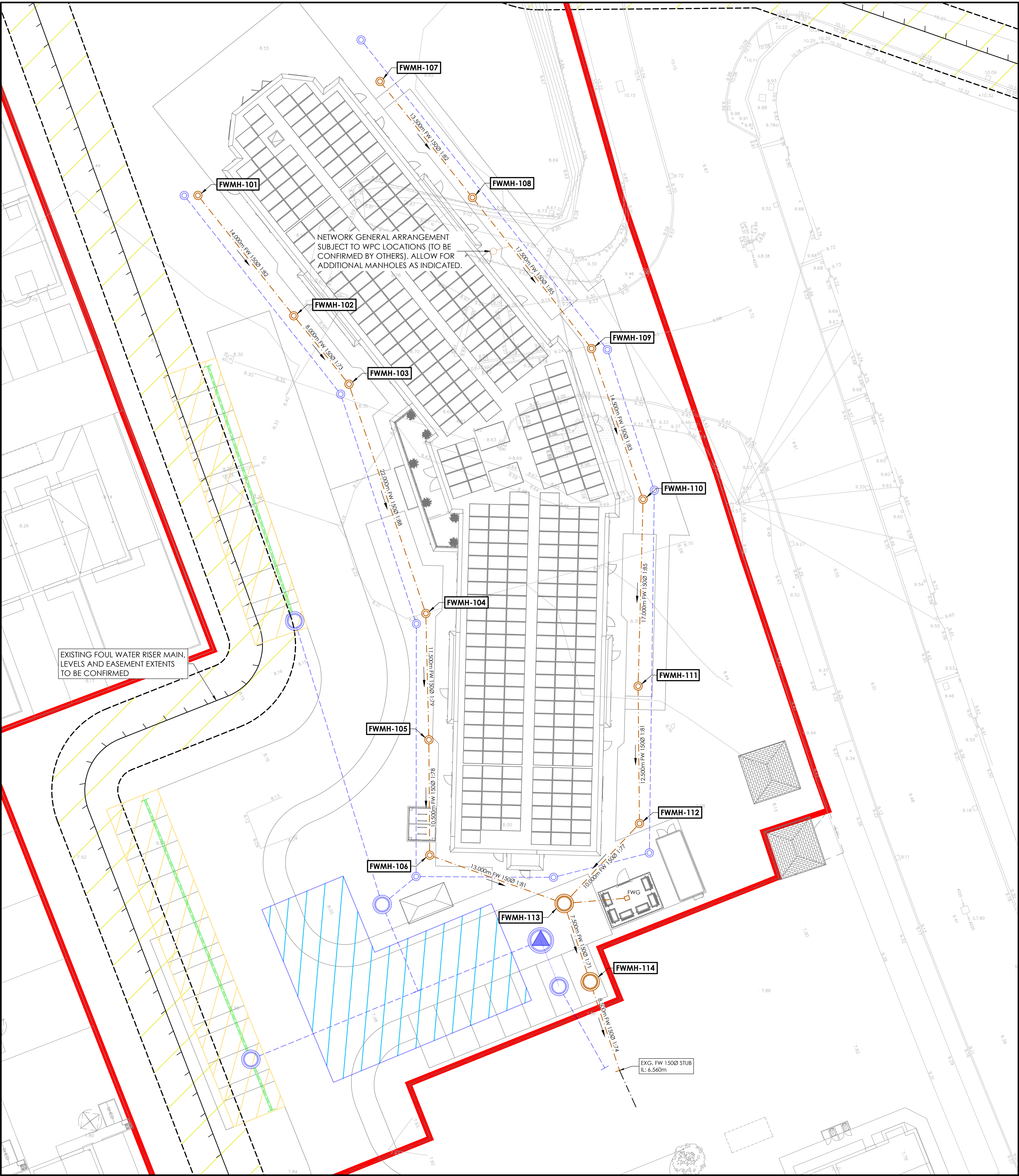
- ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDINGS, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
- ANY DRAINAGE TO BE PUT FORWARD FOR ADOPTION EITHER WITHIN THE SITE OR OUTSIDE SHALL BE CONSTRUCTED TO SEWERS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE/WATER AUTHORITY.
- THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD ANY EXISTING LIVE DRAINAGE BE FOUND WITHIN THE SITE BOUNDARY SERVING ADJACENT PROPERTIES.
- ALL EXISTING DRAINAGE WITHIN THE SITE NOT REQUIRED FOR THE NEW DEVELOPMENT SHALL BE ABANDONED. DRAINS AND SEWERS LESS THAN 1.500m DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS IS PRACTICABLE BE FULLY REMOVED. ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND BE GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 225Ø OR ABOVE SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.
- THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE UTILITY COMPANIES.
- THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
- THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
- THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM WORKING AREAS.
- ALL MANHOLE/CHAMBER COVER LEVELS ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE TO SUIT THE PROPOSED FINISHED LEVELS.
- ALL PIPES SHALL BE LAID WITH LEVEL SOFFITS AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUT GOING PIPE UNO, ON THE DRAWING (NOTE THAT ALL PIPE GRADIENTS INDICATED ON THE DRAWING ARE APPROXIMATE ONLY).
- ALL PIPE CONNECTION FROM DRAINAGE CHANNELS AND GULLIES SHALL BE 150Ø PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS Z BEDDING UNO, ON THE DRAWING.
- ALL PIPE CONNECTIONS FROM RWP'S TO BE 100Ø AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM WPC'S TO FIRST CHAMBER SHALL BE 100Ø AT 1:40 MIN. WITH CLASS S BEDDING BENEATH THE BUILDING AND CLASS Z UNDER EXTERNALS WHERE COVER IS LESS THAN 1.20m UNO, ON THE DRAWING (LOCATION OF RWP'S AND WPC'S TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY).
- ALL SYPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/ DESIGNED BY SYPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAINT GOBAIN WATERWAY 2000 - D400 OR SIMILAR APPROVED.
- SUITABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PPG3 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM. WIRED BACK TO A MANNED OFFICE.
- UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RUNS BY JETTING AND REMOVE ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER AND/OR WATERCOURSE SYSTEM. ONCE THE DRAINAGE SYSTEM HAS BEEN FULLY CLEANED OUT A CCTV CAMERA CONDITION SURVEY SHALL BE UNDERTAKEN ON ALL CONSTRUCTED DRAINAGE AND SEWER PIPES WITH THE FOOTAGE ISSUED TO THE ENGINEER FOR VIEW. THE AS BUILT INVERT AND COVER LEVELS SHALL BE RECORDED BY THE CONTRACTOR AND PASSED ON TO THE ENGINEER FOR REVIEW.

LEGEND

- PROPOSED SURFACE WATER PIPE
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED HALF-PERFORATED SURFACE WATER PIPE
- PROPOSED FOUL WATER PIPE
- PROPOSED FOUL WATER MANHOLE
- FWG PROPOSED FOUL WATER GULLY
- WPC PROPOSED WASTE POINT CONNECTION

NOTE
WASTE POINT CONNECTION LOCATIONS TO BE CONFIRMED BY OTHERS

0m 5m 10m
SCALE 1:200



FOUL WATER DRAINAGE STRATEGY
SCALE 1:200

FOUL WATER MANHOLE SCHEDULE										
REF.	COVER LEVEL	INVERT LEVEL	SUMP DEPTH	DEPTH	EASTING	NORTHING	DIAMETER	TYPE	COVER	NOTES
101	8.650m	7.750m - 150Ø OUT	0.000m	0.900m	330901.470	186960.974	450Ø	PPIC	450x450 - CLASS B125	-
102	8.739m	7.580m - 150Ø IN 7.580m - 150Ø OUT	0.000m	1.159m	330910.189	186950.020	450Ø	PPIC	450x450 - CLASS B125	-
103	8.711m	7.470m - 150Ø IN 7.470m - 150Ø OUT	0.000m	1.241m	330915.212	186943.794	450Ø	PPIC	300x300 - CLASS B125	-
104	8.653m	7.220m - 150Ø IN 7.220m - 150Ø OUT	0.000m	1.433m	330922.205	186922.935	450Ø	PPIC	300x300 - CLASS B125	-
105	8.689m	7.075m - 150Ø IN 7.075m - 150Ø OUT	0.000m	1.614m	330922.485	186911.438	450Ø	PPIC	300x300 - CLASS B125	-
106	8.693m	6.940m - 150Ø IN 6.940m - 150Ø OUT	0.000m	1.753m	330922.558	186900.938	450Ø	PPIC	300x300 - CLASS B125	-
107	8.710m	7.810m - 150Ø OUT	0.000m	0.900m	330918.041	186971.345	450Ø	PPIC	450x450 - CLASS B125	-
108	8.715m	7.645m - 150Ø IN 7.645m - 150Ø OUT	0.000m	1.070m	330926.448	186960.782	450Ø	PPIC	450x450 - CLASS B125	-
109	8.715m	7.440m - 150Ø IN 7.440m - 150Ø OUT	0.000m	1.275m	330937.285	186947.041	450Ø	PPIC	300x300 - CLASS B125	-
110	8.715m	7.265m - 150Ø IN 7.265m - 150Ø OUT	0.000m	1.450m	330941.969	186933.318	450Ø	PPIC	300x300 - CLASS B125	-
111	8.708m	7.065m - 150Ø IN 7.065m - 150Ø OUT	0.000m	1.643m	330941.518	186916.324	450Ø	PPIC	300x300 - CLASS B125	-
112	8.847m	6.910m - 150Ø IN 6.910m - 150Ø OUT	0.000m	1.937m	330941.644	186903.825	450Ø	PPIC	300x300 - CLASS B125	-
113	8.591m	6.780m - 150Ø IN 6.780m - 150Ø IN 6.780m - 150Ø OUT	0.000m	1.811m	330934.792	186896.542	1200Ø	TYPE E	600x600 - CLASS D400	-
114	8.571m	6.675m - 150Ø IN 6.675m - 150Ø OUT	0.000m	1.896m	330937.153	186889.424	1200Ø	TYPE B	600x600 - CLASS D400	-

P02	UPDATED TO NEW ARRANGEMENT	12.05.25	BT	SMS
P01	FIRST ISSUE	02.08.24	JDM	SMS
REV	DESCRIPTION	DATE	CHK	BY

Project
MENDALGIEF ROAD
NEWPORT

Drawing Title
FOUL WATER DRAINAGE STRATEGY

INFORMATION



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