

General Drainage Notes:

Existing details shown on this drawing including kerblines, existing drains, chambers, sewers, pipework, stub connections where new connections, diversions or abandonment are shown, invert levels and pipe sizes shall be checked and confirmed to the engineer prior to the commencement of any works. Any discrepancies shall be reported to the engineer for action prior to any new construction.

All existing drainage depths, size and conditions, to which the proposed drainage is to connect, are to be confirmed prior to the commencement of any drainage works.

All drainage works shall be carried out in accordance with the requirements of the local authority and in conjunction with all relevant British Standards, Codes of Practice and 'Sewers for Adoption' 7th Edition and addendums as appropriate.

All drainage shall comply with the typical drainage construction details and the requirements of BS EN 752.

Access covers and frames shall comply with the loadings specified and to BS EN 124 and kitemarked or if recessed covers are specified then in accordance with FACTA association equivalent.

All underslab drainage shall be clear of foundations unless shown otherwise with long radius bends kept to a minimum and used where unavoidable.

At least one soil pipe at the head of each foul run shall be vented to the atmosphere.

All private drainage pipework for foul and surface water systems have been designed on the basis of UPVC to BS EN 1401-1, unless noted otherwise.

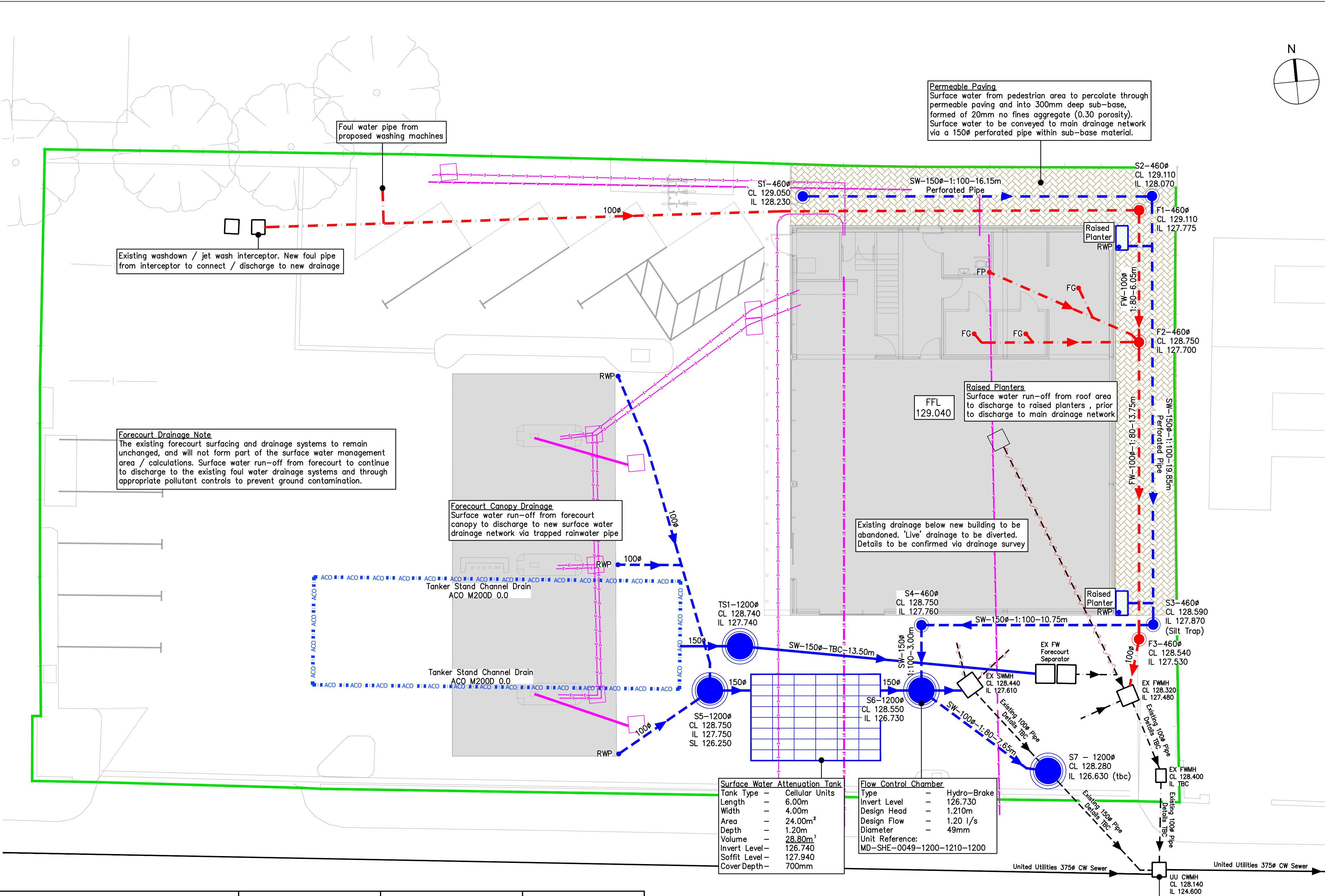
Where new drainage is situated within 5 metres of new or existing trees the pipework shall be encased in concrete to reduce the risk of root ingress.

Concrete encasement of the pipework shall be required where the vertical clearance between two pipes crossing is less than 300mm.

All existing drainage shall be assumed to be 'live' and shall be maintained at all times during the works. Existing drainage shall be reconnected to the new drainage system unless proven to be redundant for abandonment. All existing drainage to be abandoned shall be sealed by appropriate means.

Upon completion all new drainage installation together with any existing drainage retained shall be jetted and CCTV surveyed upon completion. Contractor to ensure that the drainage system is fully operational, free of excess debris/silt and all identified faults rectified.

HEALTH & SAFETY: The works shall be carried out by specialist competent and experienced contractors. All operatives shall have received full and appropriate training with appropriate qualifications for the operations they are required to undertake. All work shall be carried out in accordance with the relevant Health & Safety Regulations.



UP STREAM MH DETAILS								PIPE DETAILS			DOWN STREAM MH DETAILS			FURTHER INFORMATION
MH	CL	IL	DEPTH TO SOFFIT	MH SIZE	MH TYPE	COVER SIZE	COVER TYPE	PIPE SIZE	PIPE GRADIENT	PIPE LENGTH	D / S MH	D / S CL	D / S IL	
S1	129.050	128.230	0.670	460	PPIC	540x540	URP760 Recessed	150	100	16.15	S2	129.110	128.070	Polypipe IC
S2	129.110	128.070	0.890	460	PPIC	540x540	URP760 Recessed	150	100	19.85	S3	128.590	127.870	Polypipe IC
S3	128.590	127.870	0.570	460	PPIC	460 Dia	UG419 Solid	150	100	10.75	S4	128.750	127.760	Polypipe IC
S4	128.750	127.760	0.840	460	PPIC	460 Dia	UG419 Solid	150	100	3.00	S6	128.550	126.730	Polypipe IC
S5	128.750	126.750	1.850	1200	B	600x600	D400 - Solid	150	80	1.00	Connection to Attenuation Tank			PCC Manhole with 500mm Sump
S6	128.550	126.730	1.720	1200	Flow Control	750x675	D400 - Solid	100	80	7.65	S7	128.280	126.630	Flow Control Chamber
S7	128.280	126.630	1.500	1200	B	600x600	D400 - Solid	EX 150	TBC	TBC	UU CWMH	128.140	125.280 (tbc)	PCC Manhole Over Existing Pipe Details to be Confirmed
TS1	128.740	127.740	0.850	1200	E	750x675	D400 - Solid	150	TBC	13.50	Connection to Existing Interceptor			PCC Manhole
F1	129.110	127.775	1.235	460	PPIC	460x460	UG510 Solid	100	80	6.05	F2	128.750	127.700	Polypipe IC with 350mm Reducer
F2	128.750	127.700	0.950	460	PPIC	540x540	URP760 Recessed	100	80	13.75	F3	128.540	127.530	Polypipe IC
F3	128.540	127.530	0.910	460	PPIC	460 Dia	UG419 Solid	100	50	2.50	EX FWMH	128.320	127.480 (tbc)	Polypipe IC

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Drainage Key:

- Surface Water Drainage
- Foul Water Drainage
- Existing Foul Water Drainage
- Existing Surface Water Drainage
- Existing Combined Drainage
- Existing Drainage Abandoned
- RWP Rainwater Pipe
- FP Foul Down Pipe
- FG Foul Water Gully
- Raised Planter
- Permeable Paving

Site Specific Drainage Design Notes

Architect to confirm all foul and rainwater down pipe locations prior to the commencement of any drainage works.Design subject to change once known.

All external levels and subsequent cover levels of proposed drainage network to be confirmed prior to commencement of any drainage works. Design subject to change once known

Existing drainage and sewer locations, size and depths shown on this drawing to be confirmed prior to the commencement of any drainage works.Design subject to change once known.

All existing drainage to remain 'live' and unchanged unless it has been proven to be no longer in use, or below the new building if found not live or diverted.

Connection and discharge subject to Section 106 agreement with United Utilities.

All foul water pipes to be 100ø, and all surface water pipes to be 150ø unless shown otherwise.

Foul water down pipes to have rest bend invert of 450mm below finished floor level unless stated otherwise.

Rainwater Pipe to have invert level of 450mm below finished floor level, unless stated otherwise.

Drainage Specifications

Foul water pipes to be Polypipe to BS EN 1401-1 or similar

Surface water pipes to be Polypipe Ridgidrain or similar

Manholes to be PCC by FP McCann or similar

Inspection chambers to be Polypipe or similar

Attenuation tank to be WAVIN AquaCell Prime or similar

05	COVER LEVELS AMENDED	28/09/2021	MS KP
04	SERVICES ADDED TO LAYOUT	26/09/2021	MS KP
03	PRELIMINARY ISSUE	16/09/2021	MS KP
02	PRELIMINARY ISSUE	13/09/2021	MS KP
01	PRELIMINARY ISSUE	09/09/2021	MS KP
Rev	Description	Date	By Chk App

PRELIMINARY

MARLAND SERVICE STATION
BOLTON ROAD, ROCHDALE

gaurya
Consulting Structural Engineers

BELOW GROUND
DRAINAGE LAYOUT

Project No:	Scale (©A1):	Drawn:	Date:
326222	1:100©A1	MDS	Sep '22
Drawing No:	Rev:		
326222-GAU-ZZ-XX-DR-C-45001	05		