

NOTES.

- All surface water pipes to be 150ø unless noted otherwise.
 - All foul water pipes to be 100ø unless noted otherwise.
 - Whitfield clayware pipes are to comply with BS EN 295
 - Concrete pipes are to comply with BS EN1916/BS EN 5911
 - Structured walled plastic pipes shall comply with BS EN 13476-3 with a minimum wall stiffness of SNE.
 - Twin walled plastic pipes (not to be used for foul drainage) shall have a wall stiffness of SNE and comply with a BBA certificate.
 - Pipes to BS EN 295 with more than 900mm cover between pipe soffit and finished surface to be in type 'B' bedding. Plastic pipes with more than 900mm between pipe soffit and finished surface to be in type 'S' bedding.
 - All pipes under external paved areas with less than 900mm cover to be in type 'A5' bedding.
 - All manholes, trenches, culverts etc to be backfilled with imported granular fill to Class 6F1 (capping material) compacted to a maximum of 95% of maximum dry density of BS1377: Part 4 (Vibrating Hammer method).
 - The Contractor is responsible for ensuring that full and adequate temporary works are provided to maintain safety and stability of the existing structure whilst the new works are being carried out. The propping is to remain in position until such time that the new works can adequately sustain the intended loads. Details of the proposed temporary works are to be forwarded to the Engineer for comment prior to commencement of works being carried out. Reference should also be made to Nolan Associates Standard detail - Pipes near buildings. (022)
 - Polypropylene Access Chambers (denoted A.C.) are to be no deeper than 600mm.
 - Pipe Gradients:
- Pipes are to be laid to the levels and gradients shown. Pipe branches are to be laid no flatter than the following table:

	100ø	150ø
Gullies, sinks and basins	1:40	1:40
Pipes draining 1 or more WC's	1:80	-
Pipes draining 5 or more WC's	1:80	1:150

- For Manhole covers see schedule.
- The Contractor is to enter into all necessary legal agreements with the drainage authority for all connections to the Public Sewer Network.
- The Contractor is to survey all drainage outfalls and determine the levels of any Utility Apparatus that might affect the levels of drainage connections, prior to commencing any drainage works on site.
- The Contractor is to obtain the consent of the Highway Authority to any works within the highway and enter into any necessary legal agreements.

REF	Position X	Position Y
RE1	388649331.58	397465685.75
SWMH1	388652612.27	397455772.81
RE2	388642754.64	397463058.76
RE3	388642593.04	397452304.00
SWMH2	388646428.54	397453509.36
SWMH3	388650154.95	397441414.58
SWMH4	388628730.02	397464061.87
RE4	388611125.11	397451075.41
SWMH5	388630848.34	397458021.06
SWMH6	388637996.04	397437637.95
SWMH7	388619228.58	397430877.96
SWMH8	388609927.58	397457289.56
CWMH1	TBC On Site	TBC On Site
CWMH2	TBC On Site	TBC On Site
EX CWMH	TBC On Site	TBC On Site

Component	Regular Maintenance	Occasional (Infrequent) Maintenance	Remedial Maintenance	Monitoring
Attenuation storage tank (A)	Inspect and identify any areas that are not operating correctly. Will be seen from inspection of inlet chamber (A.1) and outlet chamber (A.2) showing large sediment build up and standing water. If required, take remedial action. Remove debris from the catchment surface MONTHLY. Remove sediment from pre-treatment structures ANNUALLY. Manholes to be lifted using manhole keys.		Repair/rehabilitate inlets, outlets, overflows and vents. As this is remedial maintenance this is only required if the attenuation tank is not function as required. This would be evident from inspections of the upstream and downstream catchpits overflowing.	Inspect/check all inlets (A.1), outlets (A.2), vents and overflows to ensure that they are in good condition and operating as designed annually. CCTV survey perforated distribution pipe through tank (A.3) sediment build-up and remove if necessary EVERY FIVE YEARS.
Catchpits/ Gullies (B)	Visual inspection ANNUALLY to determine silt build up. Manholes to be lifted using manhole keys.	Use gully sucker to remove silt if any present.		Visual inspection ANNUALLY to determine silt build up. Check alarm to ensure emptying is occurring ANNUALLY.
Foul Septic Tank @		ANNUALLY service alarm system. Inspect and identify alarm is operating correctly. Test float switch at 80% capacity.	Replace alarm system if failure occurs.	

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Notes: All dimensions are given in metres to 2 decimal places. All levels are given in metres above sea level. All levels are given in metres above sea level. All levels are given in metres above sea level.

Key Plan NTS

- Indicates hardstanding impermeable area
- Flow exceedance routes

T	Drainage moved away from TRP	JSD	KAP	01.05.24
S	Asbit pipe added, tank & pipe sizes revised.	JSD	KAP	24.04.24
R	Typo amended	JSD	KAP	11.04.24
P	Masterplan added	JSD	KAP	04.04.24
O	System revised to gravity network & notes added.	JSD	KAP	02.04.24
N	Hydrobrake removed.	JSD	KAP	27.02.24
M	Rising main annotations added.	JSD	KAP	26.02.24
L	Pumping station & Rising main added to maintenance schedule.	JSD	KAP	20.02.24
K	Rising main added to storm and septic tank added to foul drainage & downstream pipework removed.	JSD	KAP	14.02.24
J	SWMH5 position adjusted	RGW	KAP	19.12.23
H	MH coord table typo removed	K.Hall	KAP	08.11.23
G	Tank moved	K.Hall	KAP	07.11.23
F	Tank size clarified. MH moved. Levels amended	K.Hall	KAP	28.10.23
E	Drainage scheme updated	K.Hall	KAP	27.10.23
D	Drainage scheme updated	K.Hall	ARW	16.08.23
C	MH schedule added. Ex UU manhole reference added.	K.Hall	ARW	29.06.23
B	North arrow added. Notes added.	K.Hall	ARW	26.05.23
A	Construction	K.Hall	ARW	17.04.23
T1	Tender	CHB	ARW	30.03.23
REV	DESCRIPTION	BY	CHKD	DATE

Green Frog Connect
Ashton Old Road, Manchester

Drainage Layout

1:500 (A1) Scale for Reference Only. Not for Construction.

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Drawn by	Date	Plot Date	Scale
K.Hall	Feb 23	Feb 23	1: 150@A1
Checked by	Project No		Dwg No
ARW	2022-278		14

Nolan Associates have been advised by Green Frog Connect that permission has been obtained to allow a new drainage run to be in an existing track. Nolan Associates have no involvement with obtaining the necessary permissions for this works

Ex UU Combined Manhole Chamber (Ref: MH 6500)
Combined surface and foul water generated from the new development site to be discharged into the existing United Utilities combined sewer network
IL +72.320

See extension to left of this plan for extents of drainage outside of site

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Manhole Schedule						
Manhole No.	Cover Level	Invert Level	Size - Dia	Type	Largest Pipe	Cover Type
FWMH1	76.100	75.040	450 dia	PPIC	150mm	C250
SWMH1	76.100	75.110	600 dia	TEGRA	225mm	D400
SWMH2	76.100	74.946	600 dia	TEGRA	375mm	D400
SWMH3	76.100	74.867	600 dia	TEGRA	375mm	D400
SWMH4	76.100	75.150	600 dia	TEGRA	150mm	D400
SWMH5	76.100	74.992	1200 dia	CR	300mm	D400
SWMH6	76.100	74.771	1500 dia	CR	225mm	D400
SWMH7	76.100	74.770	1200 dia	CR	150mm	C250
SWMH8	76.100	74.290	1200 dia	CR	150mm	C250
CWMH1	TBC	73.300	1200 dia	CR	150mm	D400
CWMH2	TBC	72.820	1200 dia	CR	150mm	D400
EX MH 6500	TBC	72.320	-	-	150mm	-