



F13 (HEAD WALL) S12 (HEAD WALL) +95.50 ditch

STORM Network 1									
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover
1.000	150	100	14.439	S1	98.800	99.850	S2	98.656	99.850
1.001	150	100	11.763	S2	98.656	99.850	S3	98.538	99.850
1.002	150	100	11.537	S3	98.538	99.850	S4	98.423	99.850
1.003	150	100	24.412	S4	98.423	99.850	S5	98.179	99.850
1.004	150	100	4.000	S5	98.179	99.850	S6	98.139	99.850
1.005	150	100	10.076	S6	98.139	99.850	S7	98.038	99.600
1.006	150	100	14.714	S7	98.038	99.600	S8	97.891	99.600
1.007	150	100	7.065	S8	97.891	99.600	S9	97.820	99.600
1.008	150	34	4.150	S9	97.820	99.600	S10	97.698	99.500
1.009	225	100	6.179	S10	97.623	99.500	S11	97.561	99.500
1.010	225	22	62.524	S11	97.561	99.500	S12	94.675	95.350
2.000	100	45	15.071	S13	98.161	99.350	S14	97.829	99.350
2.001	150	60	4.850	S14	97.779	99.350	S10	97.698	99.500
3.000	100	60	7.065	S15	97.947	99.350	S14	97.829	99.350
4.000	225	136	3.665	S16	97.650	99.500	S10	97.623	99.500

FOUL Network 1									
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover
1.000	100	77	9.460	F1	99.150	99.850	F2	99.027	99.850
1.001	100	77	15.254	F2	99.027	99.850	F3	98.829	99.850
1.002	100	77	10.932	F3	98.829	99.850	F4	98.687	99.850
1.003	100	77	12.766	F4	98.687	99.850	F5	98.521	99.850
1.004	100	77	5.443	F5	98.521	99.850	F6	98.450	99.850
1.005	100	77	10.788	F6	98.450	99.850	F7	98.310	99.850
1.006	100	77	24.412	F7	98.310	99.850	F8	97.993	99.850
1.007	100	77	4.000	F8	97.993	99.850	F9	97.941	99.850
1.008	100	80	20.492	F9	97.941	99.850	F10	97.685	99.500
1.009	100	77	14.570	F10	97.685	99.500	F11	97.496	99.350
1.010	100	77	3.309	F11	97.496	99.350	F12	97.453	99.350
1.011	100	24	60.076	F12	97.453	99.350	F13	94.950	95.500
2.000	100	40	3.728	F14	98.118	99.850	F15	98.025	99.850
2.001	100	40	3.346	F15	98.025	99.850	F9	97.941	99.850
3.000	100	77	22.062	F16	97.783	99.350	F11	97.496	99.350

22m long x 1m wide reed bed system. Reed bed to have impervious liner and gravel depth of 600mm. Gravel infill to be sized between 3-10mm. Reed bed slope from manhole F12A to sample chamber to be at a gradient of 1 in 100. Reed bed designed to serve a maximum population of 22 and designed at 1m2/population. Minimum reeds to be planted are 4 reeds/1m2. Reed bed potential removal of BOD, Ammonia, Nitrate and Phosphates is 95%.

Sample chamber used to determine quality of effluent discharge. Access to be granted to local authority and EA officers.

Bio Pure 6 package treatment plant. Outlet to reed bed system.

Hydro-Brake manhole with maximum permitted discharge rate of 2l/s from 1.2m of head.

60cum of crate type attenuation. Designed not to flood in the worst case 1 in 100 year storm event + 40% for climate change. Attenuation to be 1m deep with 500mm minimum cover.



- NOTES:
- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
 - ALL PRIVATE DRAINAGE WORKS ARE TO COMPLY WITH THE REQUIREMENTS OF BS 752 BUILDING DRAINAGE AND BUILDING REGULATIONS 2010 APPROVED DOCUMENT H 2002 EDITION. ALL ADOPTABLE DRAINAGE TO COMPLY WITH THE REQUIREMENTS OF SEVERN TRENT WATER AND SEWERS FOR ADOPTION (7th EDITION), INCLUDING THE RELEVANT PROVISIONS OF THE COMBINED ADDENDUM.
 - ALL MATERIALS, UNLESS SPECIFIED OTHERWISE, SHALL COMPLY WITH THE RELEVANT BRITISH STANDARD. SOURCES OF MATERIALS ARE TO BE AGREED WITH THE EMPLOYER'S REPRESENTATIVE/ENGINEER IN ADVANCE OF THE WORKS.
 - ANY DISCREPANCIES IN THE DETAILS SHOWN TO BE REPORTED TO THE EMPLOYER'S REPRESENTATIVE/ENGINEER PRIOR TO CONSTRUCTION.
 - ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORKS.
 - TYPICAL PIPE BEDDING TO DRAINAGE WHERE DEPTH TO SOFFIT IS GREATER THAN 600mm IN LANDSCAPED AREAS AND GREATER THAN 1200mm IN ADOPTABLE HIGHWAYS AND 900mm IN OTHER TRAFFICKED AREAS IS TO BE CLASS S (I.E. 10-14mm GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES UP TO 525 Dia AND 20 - 40mm GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES GREATER THAN 525 Dia)
 - BACKFILL TO DRAINAGE TRENCHES UNDER CARRIAGEWAYS TO BE TYPE 1 SUB-BASE MATERIAL. ELSEWHERE BACKFILL TO BE FREE DRAINING READILY COMPATIBLE MATERIAL, FREE FROM RUBBISH AND ORGANIC MATTER, FROZEN SOIL, CLAY LUMPS AND LARGE STONES. TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.
 - A FLEXIBLE JOINT SHALL BE PROVIDED AS CLOSE AS IS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH A PIPE IS BUILT, COMPATIBLE WITH THE SATISFACTORY COMPLETION AND SUBSEQUENT MOVEMENT OF THE JOINT. THE LENGTH OF THE NEXT PIPE (ROCKER PIPE) AWAY FROM THE STRUCTURE SHALL BE AS SHOWN IN THE TABLE BELOW.

NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (m)
150-600	0.6

- FINISH FLOOR LEVELS & DRAINAGE DESIGN LEVELS ARE INDICATIVE AND TO BE AMENDED FOLLOWING RECEIPT A OF FORMAL TOPOGRAPHICAL SURVEY. TOPOGRAPHICAL SURVEY TO BE CARRIED OUT IN OUTFALL LOCATION PRIOR TO ANY CONSTRUCTION
- THIS DRAWING IS PRODUCED FOR PLANNING PURPOSES ONLY.
- SVP AND RWP LOCATIONS TO BE CONFIRMED PRIOR TO ANY CONSTRUCTION ON SITE

- KEY
- 900mm (DIA MH) PRIVATE SURFACE WATER SEWER. REFER TO NETWORK 1 TABLE FOR PIPE DETAILS.
 - 1500mm (DIA MH) REFER TO SIMULATION CALCULATIONS FOR ALL MANHOLE SIZES
 - 1200mm (DIA MH) PRIVATE FOUL SEWER. REFER TO NETWORK 1 TABLE FOR PIPE DETAILS.
 - 450mm (DIA MH) REFER TO SIMULATION CALCULATIONS FOR ALL MANHOLE SIZES

Drainage updated inline with new base layout	RJS/JJM	06.12.18	A
Revision Details	By	Date	Suffix
	Check		

Drawing Number	Revision
J02187/A1/001	

THE DRURY
DRURY LANE
TYBROUGHTON

Drawing Title

PROPOSED PLANNING
DRAINAGE LAYOUT

Scale at A1	Detailed	Approved
1:200		James Mewis
Drawn	Tech Chk	Det Chk
RAW	JJM	
	Date	
	10.11.21	

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