

DO NOT SCALE



STORM Network 1											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	300	30	Circular	14.687	S101	25.37	26.67	S102	24.49	26.69	
1.001	300	25	Circular	18.580	S102	24.89	26.69	S103	24.13	25.93	
1.002	300	10	Circular	10.869	S103	24.13	25.93	S104	23.02	25.36	
1.003	750	400	Circular	11.331	S104	21.52	25.36	S105	21.46	24.80	
1.004	1050	400	Circular	20.928	S105	21.19	24.80	S107	21.14	23.97	
1.005	1050	400	Circular	17.769	S107	21.14	23.97	S108	21.09	23.15	
1.006	300	150	Circular	14.821	S108	21.09	23.15	S109	21.00	23.15	
2.000	1050	400	Circular	15.620	S106	21.18	23.50	S107	21.14	23.97	

STORM Network 2											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	450	28	Circular	15.866	S201	24.58	26.63	S202	23.97	26.72	
1.001	450	25	Circular	22.904	S202	23.97	26.72	S203	23.07	25.71	
1.002	1350	400	Circular	14.846	S203	20.97	25.71	S204	20.63	24.96	
1.003	1350	400	Circular	17.126	S204	20.63	24.96	S205	20.59	23.99	
1.004	300	18	Circular	14.380	S205	20.59	23.99	S206	19.77	23.65	
1.005	1500	400	Circular	25.004	S206	17.07	23.65	S207	17.01	21.40	
1.006	1500	400	Circular	69.533	S207	17.01	21.40	S215	16.84	19.33	
1.007	300	240	Circular	16.062	S215	16.84	19.33	S216	16.84	19.33	
2.000	450	28	Circular	21.463	S208	22.37	25.52	S209	21.53	24.45	
2.001	1350	400	Circular	25.269	S209	18.63	24.45	S210	18.77	23.20	
2.002	1500	400	Circular	20.450	S210	18.63	23.20	S211	18.55	22.89	
2.003	1500	400	Circular	12.002	S211	18.55	22.89	S212	18.52	22.22	
2.004	1500	400	Circular	12.399	S212	18.52	22.22	S213	18.49	21.61	
2.005	300	57	Circular	22.186	S213	18.49	21.61	S214	18.09	20.50	
2.006	1500	400	Circular	23.099	S214	18.09	20.50	S215	16.84	19.33	

STORM Network 3											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	900	400	Circular	33.033	S301	16.78	21.78	S302	16.70	20.13	
1.001	900	400	Circular	25.668	S302	16.70	20.13	S306	16.63	18.84	
1.002	300	18	Circular	27.449	S306	16.63	18.84	S307	14.85	17.48	
1.003	450	35	Circular	31.329	S307	14.89	17.48	S308	13.91	15.87	
1.004	750	400	Circular	12.690	S308	12.28	15.87	S309	12.22	15.18	
1.005	750	400	Circular	14.591	S309	12.22	15.18	S310	12.19	14.38	
1.006	750	400	Circular	11.508	S310	12.19	14.38	S311	12.16	13.94	
1.007	225	171	Circular	20.315	S311	12.16	13.94	S312	12.04	13.62	
2.000	900	400	Circular	13.070	S303	16.76	19.66	S304	16.73	18.44	
2.001	900	400	Circular	14.984	S304	16.73	18.44	S305	16.69	19.19	
2.002	900	400	Circular	24.511	S305	16.69	19.19	S306	16.63	18.84	

FOUL Network 4											
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	150	30	Circular	14.960	F1	23.30	24.55	F2	22.46	23.88	
1.001	150	26	Circular	62.018	F2	22.46	23.88	F4	20.12	21.47	
1.002	150	33	Circular	64.538	F4	20.12	21.47	F5	18.13	19.48	
1.003	150	150	Circular	24.071	F5	18.13	19.48	F6	17.97	20.69	
1.004	150	150	Circular	22.304	F6	17.97	20.69	F7	17.82	21.81	
1.005	150	150	Circular	16.269	F7	17.82	21.81	F8	17.71	22.54	
1.006	150	150	Circular	31.617	F8	17.71	22.54	F14	17.50	23.32	
1.007	150	150	Circular	15.311	F14	17.50	23.32	F15	17.40	22.58	
1.008	150	150	Circular	23.004	F15	17.40	22.58	F16	17.28	21.42	
1.009	150	150	Circular	23.322	F16	17.25	21.42	F17	17.09	20.26	
1.010	150	28	Circular	26.821	F17	17.09	20.26	F19	16.19	18.98	
1.011	150	150	Circular	26.533	F19	16.19	18.98	F20	16.01	17.65	
1.012	150	24	Circular	37.723	F20	16.01	17.65	F21	14.41	15.76	
1.013	150	21	Circular	6.192	F21	14.41	15.76	F22	13.98	15.33	
1.014	150	22	Circular	7.560	F22	13.98	15.33	F23	13.63	14.98	
1.015	150	22	Circular	8.923	F23	13.63	14.98	F24	13.21	14.56	
1.016	150	25	Circular	11.544	F24	13.21	14.56	F25	12.78	14.11	
1.017	150	43	Circular	15.548	F25	12.78	14.11	F26	12.47	13.87	
1.018	150	54	Circular	12.989	F26	12.47	13.87	F27	12.23	14.88	
1.019	150	52	Circular	19.909	F27	12.23	14.88	F28	11.85	14.86	
2.000	150	15	Circular	26.675	F3	21.90	23.25	F4	20.12	21.47	
3.000	150	80	Circular	22.437	F9	25.57	27.02	F10	25.39	26.99	
3.001	150	150	Circular	24.997	F10	25.39	26.99	F11	25.23	26.64	
3.002	150	18	Circular	44.691	F11	25.23	26.64	F12	22.77	24.72	
3.003	150	10	Circular	11.653	F12	22.77	24.72	F13	21.67	24.12	
3.004	150	7	Circular	15.923	F13	21.67	24.12	F14	19.15	23.32	
4.000	150	15	Circular	26.551	F18	17.96	19.31	F19	16.19	16.88	



Notes

- Setting out shall be undertaken using only the information given. Distances should not be scaled from this drawing.
- All adoptable drainage shall be constructed in accordance with 'Sewers for Adoption' 7th Edition, Welsh Ministers Standards and Welsh Water Details and Guidelines.
- The minimum gravity pipe diameter under adoptable highways shall be 150mm
- It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works. The rates shall include for hand dig around services where necessary. The Contractor shall adhere to the CDM Regulations at all times
- All materials to bear the relevant B.S. Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement to withstand Class 3 condition (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
- All opening notices etc. as required under Highways Acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or the Network Operator as applicable.
- Where structured wall UPVC pipes (or similar approved) are used in adoptable drainage they shall be handled and laid in accordance with the manufacturers instructions and will be subject to post installation deformation testing prior to adoption. A Class S Bed and Surround must be used for structured wall pipes
- Trench backfill in highways to within 1m of highway shall, as directed by the Highway Authority be a suitable granular material all in accordance with Sewers for Adoption.
- Slab levels shall not be varied without reference to the Engineer for guidance.
- Pipes have not been designed to accommodate adequate traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.
- All manhole covers and frames shall comply with BS EN124. All adoptable manholes and chambers shall comply with Sewers for Adoption 7th Edition. Covers in roads to be grade D400 and be 150mm deep. Manhole covers in car parking areas and drives to be grade B125 and covers in landscaping areas to be grade A15. All to be sized in accordance with Building Regulations Part H, Tables 11 & 12. 'In-fill' type covers should not be used. Where a cover is located in an area of block paving, the bottom of the frame should be 150mm deep.

Legend

- Site Boundary
- Existing
 - Existing Foul Water Sewer
 - Existing Surface Water Sewer
 - Existing Highway Drain
- Proposed
 - S101 Adoptable Surface Water Sewer
 - F101 Adoptable Foul Sewer
 - FC Flow Control Manhole
 - FFL XX.XX Plot Slab Level
 - Sewer Easement
 - 300 W Brick Retaining Wall
 - 300 FGE Underbuild
 - 450 STEP Steps in Slab
 - 300 GB Concrete Post & Gravel Board
 - Cellular Storage Crates
 - Rain Garden
 - Surface Water Filter Drain
 - Depth of fill (Existing levels to proposed)

STRATEGY

G	01.07.25	Updated to suit revised layout	PW	AJ
F	26.03.25	Updated to suit revised layout	PW	AJ
E	17.02.25	Updated to suit revised layout	PW	AJ
D	01.05.24	Updated to suit revised layout	PW	AJ
C	23.01.24	Location of crates updated	PW	AJ
B	19.01.24	Surface Water drainage design updated to suit revised outfall	PW	AJ
A	31.10.23	Surface Water drainage design updated	PW	AJ
Rev.	Date	Revision	By	Appd.



Tel: 01244 684910
Email: admin@coopers.co.uk
Web: http://coopers.co.uk



Client
QUARRY FARM, OAKENHOLT, FLINT.

Project
Drainage Strategy

DRAWING NUMBER	8211 / SK01	SCALE at A0	1:500	DATE	20.09.23	REVISION	G
DRAWN	PW	CHECKED	AJ				