MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	EASTING (m)	NORTHING (m)
S1	1200	Type E	121.205	119.752	440478.607	354044.163
S2	1200	Type E	118.381	116.944	440446.336	354095.365
S3	1200	Type E	118.125	116.46	440433.316	354075.13
S4	1200	Type E	114.815	113.22	440392.502	354103.347
S5	1500	Type B	113.611	111.918	440371.915	354126.093
S6	1500	Type B	113.171	111.447	440357.159	354155.894
S7	1500	Type B	112.719	110.994	440351.544	354189.365
S8	1500	Type B	112.639	111.214	440373.399	354257.649
S9	1800	Type B	111.841	110.117	440347.022	354255.655
S10	1500	Type B	110.863	109.136	440343.642	354316.373
S11	1500	Type B	109.777	107.922	440341.654	354366.429
S12	1500	Type B	109.039	106.509	440343.553	354438.661
S13	1500	Type B	109.035	106.968	440376.089	354450.658
S14	1800	Type B	108.816	106.203	440348.369	354458.853
S15	1500	Type B	108.290	106.038	440365.177	354509.059
S16	1500	Type B	108.056	105.990	440372.725	354531.579
S17	1500	Type B	107.75	105.950	440391.979	354526.041
S18	1500	Type B	119.117	117.691	440468.787	354144.662
S19	1500	Type B	116.323	114.572	440432.083	354181.441
S20	1800	Type B	116.569	114.224	440430.014	354211.51
S21	1500	Type B	115.942	114.034	440427.105	354226.661
S22	1200	Type E	116.709	115.284	440475.828	354283.317
S23	1200	Type E	117.187	115.175	440476.813	354265.086
S24	1800	Type B	115.479	113.764	440424.808	354261.477
S25	1500	Type B	114.176	112.394	440401.584	354259.498
S26	1800	Type B	114.051	112.268	440399.787	354276.482
S27	1800	Type B	113.697	111.914	440401.271	354312.418
S28	1800	Type B	113.371	111.588	440406.555	354345.215
S29	1500	Type B	113.763	112.338	440464.782	354393.602
S30	1500	Type B	111.864	110.159	440401.787	354390.577
S31	1800	Type B	110.392	108.525	440401.731	354346.686
S32	1500	Type B	109.570	107.613	440405.197	354446.403
S33	1500	Type B	110.595	107.526	440426.185	354445.979
S34	1500	Type B	109.781	107.434	440427.001	354473.497
S35	1500	Type B	107.75	105.95	440429.934	354513.834
S36	1500	Type A	108.303	104.639	440439.749	354566.597
F1	1200	Highway	107.945	106.945	440330.159	354579.660
F2	1200	Highway	108.952	107.55	440429.839	354578.063
F3	1200	Highway	108.260	106.735	440387.608	354574.555
F4	1200	Highway	107.975	106.375	440380.962	354562.123
F5	1200	Highway	107.975	106.375	440380.962	354562.123
F6	1200	Highway	108.019	106.265	440383.905	354550.917
F7	1200	Type B	107.75	105.95	440398.576	354534.753
F8	1200	Type B	107.75	105.85	440431.427	354557.221
F9	1200	Type B	107.75	105.95	440429.934	354513.834
F10	1200	Highway	108.952	107.55	440429.839	354578.063
F11	1200	Highway	108.019	106.265	440383.905	354550.917
F12	1200	Type B	115.600	113.205	440429.148	354074.729
F13	1200	Type B	114.735	112.75	440390.084	354102.038
F14	1200	Type B	113.570	111.40	440368.518	354126.265
F15	1200	Type B	113.130	111.00	440354.023	354156.409
F16	1200	Type B	112.685	110.50	440348.772	354190.475
F17	1200	Type E	118.709	117.15	440462.628	354146.862
F18	1200	Type B	116.521	114.00	440431.796	354150.412
F19	1500	Type B	116.608	113.75	440434.474	354184.210
F20	1200	Type B	116.204	113.55	440432.152	354213.560
F21	1200	Type B	115.971	113.44	440429.217	354228.740
F22	1200	Type B	115.600	113.205	440426.826	354263.838
F23	1200	Type B	114.033	111.75	440398.730	354261.936
F24	1500	Type B	111.806	109.50	440344.212	354257.639
F25	1200	Type B	110.948	108.60	440340.930	354313.011
F26	1200	Type E	109.743	108.184	440339.319	354368.468
F27	1200	Type E	109.046	107.726	440340.719	354437.193
F28	1200	Type B	113.513	111.20	440401.439	354325.752
F29	1500	Type B	113.310	111.047	440404.731	354346.686
F30	1200	Type B	111.865	109.60	440399.757	354389.440
F31	1200	Type B	110.428	108.164	440400.714	354416.624
F22	1200	Type E	109.428	107.983	440401.862	354443.710
F23	1200	Type E	109.064	107.829	440379.015	354447.382
F24	1500	Type B	108.850	107.592	440344.727	354456.916
F25	1200	Type E	109.123	107.70	440431.147	354496.839
F26	1200	Type E	108.30	107.376	440382.714	354501.539
F27	1200	Type E	108.317	107.232	440362.118	354508.074
F28	1200	Type E	108.069	107.072	440369.650	354530.927
F29	1200	Type E	107.920	106.867	440331.596	354582.069
F30	1200	Type B	108.519	106.403	440409.027	354575.305
F31	1200	Type B	109.117	106.25	440437.982	354585.057
F32	1200	Type E	107.00	105.869	440452.725	354659.846
F33	1200	Type B	108.382	105.60	440506.684	354659.989



COVER	I	A	119.752m
121.205m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	



COVER	I	A	116.944m
118.381m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	



COVER	I	A	116.46m
118.125m	N	B	116.535m
DIAMETER	V	C	116.535m
1200mm	E	D	
Type E	R T	E	



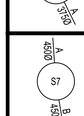
COVER	I	A	113.22m
114.815m	N	B	113.22m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	



COVER	I	A	111.918m
113.611m	N	B	111.993m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	111.522m
113.171m	N	B	111.447m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	110.994m
112.719m	N	B	110.994m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	111.214m
112.639m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	110.117m
111.841m	N	B	110.117m
DIAMETER	V	C	110.342m
1800mm	E	D	
Type B	R T	E	



COVER	I	A	109.136m
110.863m	N	B	109.136m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	107.997m
109.777m	N	B	107.922m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	106.584m
109.039m	N	B	106.509m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	106.968m
109.035m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	106.203m
108.816m	N	B	106.578m
DIAMETER	V	C	106.203m
1800mm	E	D	
Type B	R T	E	



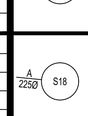
COVER	I	A	106.038m
108.290m	N	B	106.038m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	105.990m
108.056m	N	B	105.990m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	105.950m
107.75m	N	B	105.950m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	117.691m
119.117m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	114.572m
116.323m	N	B	114.497m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	114.299m
116.569m	N	B	114.224m
DIAMETER	V	C	
1800mm	E	D	
Type B	R T	E	



COVER	I	A	114.098m
116.164m	N	B	114.098m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	114.034m
115.942m	N	B	114.034m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	115.284m
116.709m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	



COVER	I	A	115.175m
117.187m	N	B	115.175m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	



COVER	I	A	113.764m
115.479m	N	B	113.914m
DIAMETER	V	C	113.764m
1800mm	E	D	
Type B	R T	E	



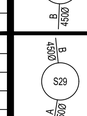
COVER	I	A	112.394m
114.176m	N	B	112.469m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	112.268m
114.051m	N	B	112.268m
DIAMETER	V	C	
1800mm	E	D	
Type B	R T	E	



COVER	I	A	111.914m
113.697m	N	B	111.914m
DIAMETER	V	C	
1800mm	E	D	
Type B	R T	E	



COVER	I	A	111.588m
113.371m	N	B	111.588m
DIAMETER	V	C	
1800mm	E	D	
Type B	R T	E	



COVER	I	A	112.338m
113.763m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	110.384m
111.864m	N	B	110.159m
DIAMETER	V	C	110.159m
1800mm	E	D	
Type B	R T	E	



COVER	I	A	108.525m
110.392m	N	B	108.525m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	107.763m
109.570m	N	B	107.613m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	107.526m
110.595m	N	B	107.526m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



COVER	I	A	107.434m
109.781m	N	B	107.434m
DIAMETER	V	C	
1800mm	E	D	
Type B	R T	E	



COVER	I	A	105.95m
107.75m	N	B	105.95m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	



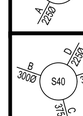
COVER	I	A	106.945m
107.945m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Highway	R T	E	



COVER	I	A	107.55m
108.952m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Highway	R T	E	



COVER	I	A	106.735m
108.260m	N	B	
DIAMETER	V	C	
1500mm	E	D	
Highway	R T	E	



COVER	I	A	106.45m
107.975m	N	B	106.45m
DIAMETER	V	C	106.375m
1500mm	E	D	106.525m
Highway	R T	E	

COVER	I	A	106.265m
108.019m	N	B	106.265m
DIAMETER	V	C	
1500mm	E	D	
Highway	R T	E	

COVER	I	A	105.95m
107.75m	N	B	106.175m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	

COVER	I	A	105.850m
107.75m	N	B	105.85m
DIAMETER	V	C	105.85m
1800mm	E	D	105.85m
Type B	R T	E	

COVER	I	A	104.639m
108.303m	N	B	
DIAMETER	V	C	
1800mm	E	D	
Type A	R T	E	

COVER	I	A	116.40m
118.279m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	115.75m
117.903m	N	B	115.75m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	112.75m
114.735m	N	B	112.75m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	111.40m
113.570m	N	B	111.40m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	111.00m
113.130m	N	B	111.00m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	110.50m
112.685m	N	B	110.50m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	117.15m
118.709m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	114.00m
116.521m	N	B	114.00m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	113.75m
116.608m	N	B	113.75m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	

COVER	I	A	113.55m
116.204m	N	B	113.55m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	113.44m
115.971m	N	B	113.44m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	113.205m
115.600m	N	B	113.205m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	111.75m
114.033m	N	B	111.75m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	109.50m
111.806m	N	B	109.50m
DIAMETER	V	C	109.50m
1500mm	E	D	
Type B	R T	E	

COVER	I	A	108.60m
110.948m	N	B	108.60m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	108.184m
109.743m	N	B	108.184m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.726m
109.046m	N	B	107.726m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	111.20m
113.513m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	111.047m
113.310m	N	B	111.047m
DIAMETER	V	C	
1500mm	E	D	
Type B	R T	E	

COVER	I	A	109.60m
111.865m	N	B	109.60m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	108.164m
110.428m	N	B	108.164m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	107.983m
109.428m	N	B	107.983m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.829m
109.064m	N	B	107.829m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.592m
108.850m	N	B	107.592m
DIAMETER	V	C	107.592m
1500mm	E	D	
Type B	R T	E	

COVER	I	A	107.70m
109.123m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.376m
108.30m	N	B	107.376m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.232m
108.317m	N	B	107.232m
DIAMETER	V	C	107.232m
1200mm	E	D	
Type E	R T	E	

COVER	I	A	107.072m
108.069m	N	B	107.072m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	106.867m
107.920m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	106.478m
108.519m	N	B	106.478m
DIAMETER	V	C	106.403m
1200mm	E	D	
Type B	R T	E	

COVER	I	A	106.25m
109.117m	N	B	106.25m
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

COVER	I	A	105.869m
107.00m	N	B	105.869m
DIAMETER	V	C	
1200mm	E	D	
Type E	R T	E	

COVER	I	A	105.60m
108.382m	N	B	
DIAMETER	V	C	
1200mm	E	D	
Type B	R T	E	

General Notes.

1. Do not scale this drawing. If in doubt, ask.

2. This drawing is to be read in conjunction with all other relevant Engineers, Architects and specialist design drawings and details.

3. All dimensions are in metres unless noted otherwise. All levels are in metres unless noted otherwise.

4. Any discrepancies noted on site are to be reported to the Engineer immediately.

5. The Contractor shall establish exact levels of the existing foul and surface water sewers, and/or proposed level at discharge point, prior to the commencement of any drainage works.

6. The Contractor must ensure that the gradients indicated on the longitudinal sections are checked between the levels shown, prior to laying pipes. At no times must the contractor proceed with pipe laying by dialling the gradient shown into a laser without checking. Any discrepancy in this respect must be reported to the engineer prior to pipe laying.

7. The Contractor shall check his pipe gradients by means of profiles and traveller to verify the laser gradients.

8. In the event of the above procedures not being followed, the client will accept no responsibility whatsoever for any consequential loss or damage.

9. The Contractor is responsible for ensuring that all works are to the satisfaction of the Engineer and shall be deemed to have included within his rates for any necessary testing.

10. Pipes of different diameters entering manholes should be installed with soffits at the same level.

11. Sewers shall be constructed to the satisfaction of Severn Trent Water and in accordance with the W.S.A. publication "Sewers for Adoption", 6th Edition.

12. A protective plastic membrane is to be applied to all foul sewers that are laid above surface water sewers..

13. Catch pits shall not be adopted.

14. Easements at any change in width, these should be 2.5m to each side the centreline of pipe for pipe sizes upto 300mm diam. And 5m each side of the centre of pipe for 300mm dia or greater.

15. Where pipe crossing, plastic membrane to be used for protection to eliminate any chances of cross contamination.

16. No backdrops to be used. Steeper gradients are preferred to the use of backdrops.

17. Precast concrete manhole rings will not be cut under any circumstances. Other options, manhole built up with concrete or brickwork to the top of pipe.

18. Protective concrete cover slabs to be used on pipes in non traffic area which doesn't achieve 0.9m cover level and 1.2m cover in trafficked areas.

19. All cover and frames to be kitemarked.

20. Type E manhole the opening cover and frame should be located centrally over the pipe - please refer to SFA6th edition figure 2.8 Type E details on page 38.

21. The outside of the sewer should be in