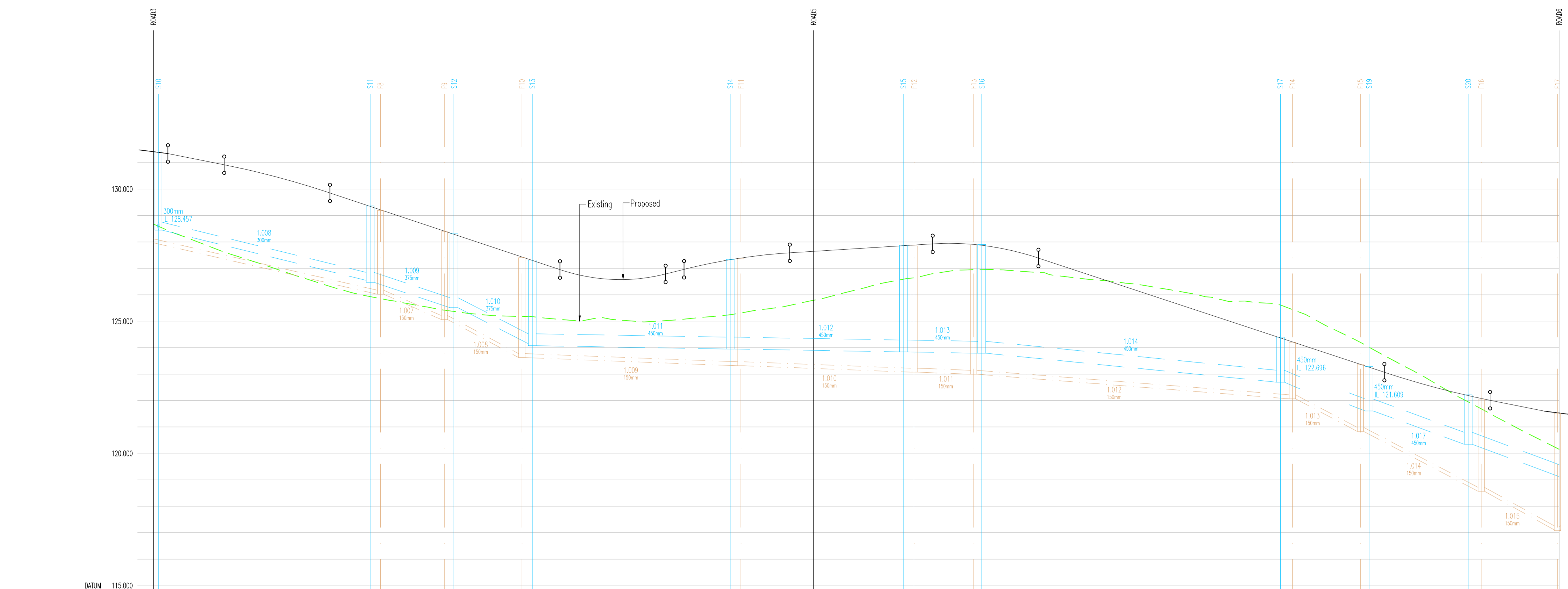


ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN

Adoption General Notes

- All adoptable sewer works and materials to be in accordance with Sewerage Sector Guidance (SSG), the relevant British/European and the adopting Water Authority standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Filled ground must be filled and consolidated under the supervision, and to the satisfaction, of Yorkshire Water before any sewer works are carried out.
- Cover slabs must carry the BS Kitemark or may be rejected by Yorkshire Water inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600x600mm for Yorkshire Water specified cover size. Please refer to the Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued autumn 2004 for Kitemarked cover slab opening sizes.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5 metres clearance from trees and hedges, (please also refer to Figure 2.3 on page 33 in 'Sewers for Adoption' 6th Edition for restrictions on tree planting adjacent to sewers).
- Sewers to be laid in Class 'S' bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in non vehicular access areas) then a concrete slab should be provided above the granular bed and surround.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2)
- Adoptable plastic sewer pipes to be BSI Kitemarked (Certified to WIS 4-35-01 and BS/EN13476). Adoptable sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer.
- Plastic channel sections in manholes are not acceptable and layover is preferable. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the bedding.
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- Yorkshire Water's policy is not generally to accept Type 'C' brick manhole and 1050mm dia manhole rings. Instead it is preferred that you use a type 'B' manhole with 1200mm dia or 1500mm dia. rings, with the opening sited over the channel where depth of cover to pipe soffit is 1-1.5m.
 - All adoptable sewers to be BSI Kitemarked (certified to WIS 4-35-01).
 - Bedding and backfill material to conform to the requirements of Water Industry Specification 4-08-02 (Table A2)
- Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
- Where plastic pipes are installed into the ground prior to getting full technical approval, the developer must provide a CCTV survey of the prospectively adoptable sewers and a deformation test (Light-Line test) of the plastic pipes.
- Demarcation chambers to be a min. 450mm chamber for 100mm foul & 150mm surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 350mm is required for safety reasons.
- Maximum depth of demarcation chamber to be 3m, where depth exceeds 3m, manhole to be constructed as type B manhole.
- Where a 5125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
- Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Land Drainage Authority/Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff is required.
- Sulphate resisting cement (C20-D02) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Strength of vitrified clay pipes (if used) to be 40KN/m for 1000, 40KN/m for 1500, 45KN/m for 2250 and 72KN/m for 3000. All concrete pipes to be Class 120 concrete to EN 1916/BS 5911-1:2002.
- All levels of existing drainage to be confirmed prior to work commencing on site.
- The contractor must allow for any fees required for road and sewer opening permits, sewer connections and make the appropriate applications.
- There should be enough clearance to accommodate the bedding for both pipes, approx 300mm; if crossover is near rocker then the clearance needed may be increased.



CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL	VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	LEFT HAND CHANNEL	RIGHT HAND CHANNEL	STORMWATER COVER LEVEL	STORMWATER INVERT	STORMWATER DETAILS	STORMWATER LENGTHS	FOULWATER COVER LEVEL	FOULWATER INVERT	FOULWATER DETAILS	FOULWATER LENGTHS
0+000	128.675	131.346	C _v = -4.000%				131.446	128.447	Pipe 1.008	39.872			Dia 150	44.010
0+250	127.876	131.056	1: -25.0		131.174	131.037	128.983	128.447	Dia 300					
0+500	127.077	130.920			131.174	130.987	128.983	128.447	Class S Bed and Surround					
0+750	126.278	130.884			130.920	130.785	128.983	128.447						
1+000	125.479	130.626			130.695	130.558	128.983	128.447						
1+250	124.680	130.368			130.435	130.297	128.983	128.447						
1+500	123.881	130.110			130.141	130.003	128.983	128.447						
1+750	123.082	129.852			129.815	129.678	128.983	128.447						
2+000	122.283	129.594			129.482	129.345	128.983	128.447						
2+250	121.484	129.336			129.149	129.012	128.983	128.447						
2+500	120.685	129.078			128.816	128.679	128.983	128.447						
2+750	119.886	128.820			128.483	128.346	128.983	128.447						
3+000	119.087	128.562			128.150	128.013	128.983	128.447						
3+250	118.288	128.304			127.817	127.680	128.983	128.447						
3+500	117.489	128.046			127.484	127.347	128.983	128.447						
3+750	116.690	127.788			127.151	127.014	128.983	128.447						
4+000	115.891	127.530			126.816	126.679	128.983	128.447						
4+250	115.092	127.272			126.483	126.346	128.983	128.447						
4+500	114.293	127.014			126.150	126.013	128.983	128.447						
4+750	113.494	126.756			125.817	125.680	128.983	128.447						
5+000	112.695	126.498			125.484	125.347	128.983	128.447						
5+250	111.896	126.240			125.151	125.014	128.983	128.447						
5+500	111.097	125.982			124.818	124.681	128.983	128.447						
5+750	110.298	125.724			124.485	124.348	128.983	128.447						
6+000	109.499	125.466			124.152	124.015	128.983	128.447						
6+250	108.700	125.208			123.819	123.682	128.983	128.447						
6+500	107.901	124.950			123.486	123.349	128.983	128.447						
6+750	107.102	124.692			123.153	123.016	128.983	128.447						
7+000	106.303	124.434			122.820	122.683	128.983	128.447						
7+250	105.504	124.176			122.487	122.350	128.983	128.447						
7+500	104.705	123.918			122.154	122.017	128.983	128.447						
7+750	103.906	123.660			121.821	121.684	128.983	128.447						
8+000	103.107	123.402			121.488	121.351	128.983	128.447						
8+250	102.308	123.144			121.155	121.018	128.983	128.447						
8+500	101.509	122.886			120.822	120.685	128.983	128.447						
8+750	100.710	122.628			120.489	120.352	128.983	128.447						
9+000	99.911	122.370			120.156	120.019	128.983	128.447						
9+250	99.112	122.112			119.823	119.686	128.983	128.447						
9+500	98.313	121.854			119.490	119.353	128.983	128.447						
9+750	97.514	121.596			119.157	119.020	128.983	128.447						
10+000	96.715	121.338			118.824	118.687	128.983	128.447						
10+250	95.916	121.080			118.491	118.354	128.983	128.447						
10+500	95.117	120.822			118.158	118.021	128.983	128.447						
10+750	94.318	120.564			117.825	117.688	128.983	128.447						
11+000	93.519	120.306			117.492	117.355	128.983	128.447						
11+250	92.720	120.048			117.159	117.022	128.983	128.447						
11+500	91.921	119.790			116.826	116.689	128.983	128.447						
11+750	91.122	119.532			116.493	116.356	128.983	128.447						
12+000	90.323	119.274			116.160	116.023	128.983	128.447						
12+250	89.524	119.016			115.827	115.690	128.983	128.447						
12+500	88.725	118.758			115.494	115.357	128.983	128.447						
12+750	87.926	118.500			115.161	115.024	128.983	128.447						
13+000	87.127	118.242			114.828	114.691	128.983	128.447						
13+250	86.328	117.984			114.495	114.358	128.983	128.447						
13+500	85.529	117.726			114.162	114.025	128.983	128.447						
13+750	84.730	117.468			113.829	113.692	128.983	128.447						
14+000	83.931	117.210			113.496	113.359	128.983	128.447						
14+250	83.132	116.952			113.163	113.026	128.983	128.447						
14+500	82.333	116.694			112.830	112.693	128.983	128.447						
14+750	81.534	116.436			112.497	112.360	128.983	128.447						
15+000	80.735	116.178			112.164	112.027	128.983	128.447						
15+250	79.936	115.920			111.831	111.694	128.983	128.447						
15+500	79.137	115.662			111.498	111.361	128.983	128.447						
15+750	78.338	115.404			111.165	111.028	128.983	128.447						
16+000	77.539	115.146			110.832	110.695	128.983	128.447						
16+250	76.740	114.888			110.499	110.362	128.983	128.447						
16+500	75.941	114.630			110.166	110.029	128.983	128.447						
16+750	75.142	114.372			109.833	109.696	128.983	128.447						
17+000	74.343	114.114			109.500	109.363	128.983	128.447						
17+250	73.544	113.856			109.167	109.030	128.983	128.447						
17+500	72.745	113.598			108.834	108.697	128.983	128.447						
17+750	71.946	113.340			108.501	108.364	128.983	128.447						
18+000	71.147	113.082			108.168	108.031	128.983	128.447						
18+250	70.348	112.824			107.835	107.698	128.983	128.447						
18+500	69.549	112.566			107.502	107.365	128.983	128.447						
18+750	68.750	112.308			107.169	107.032	128.983	128.447						
19+000	67.951	112.050			106.836	106.699	128.983	128.447</						