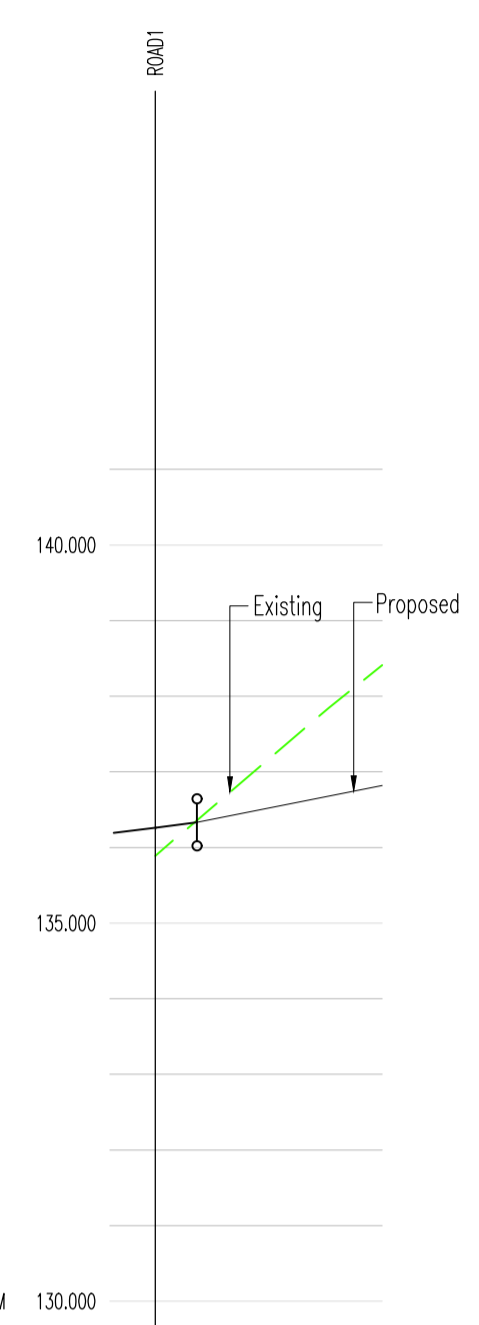
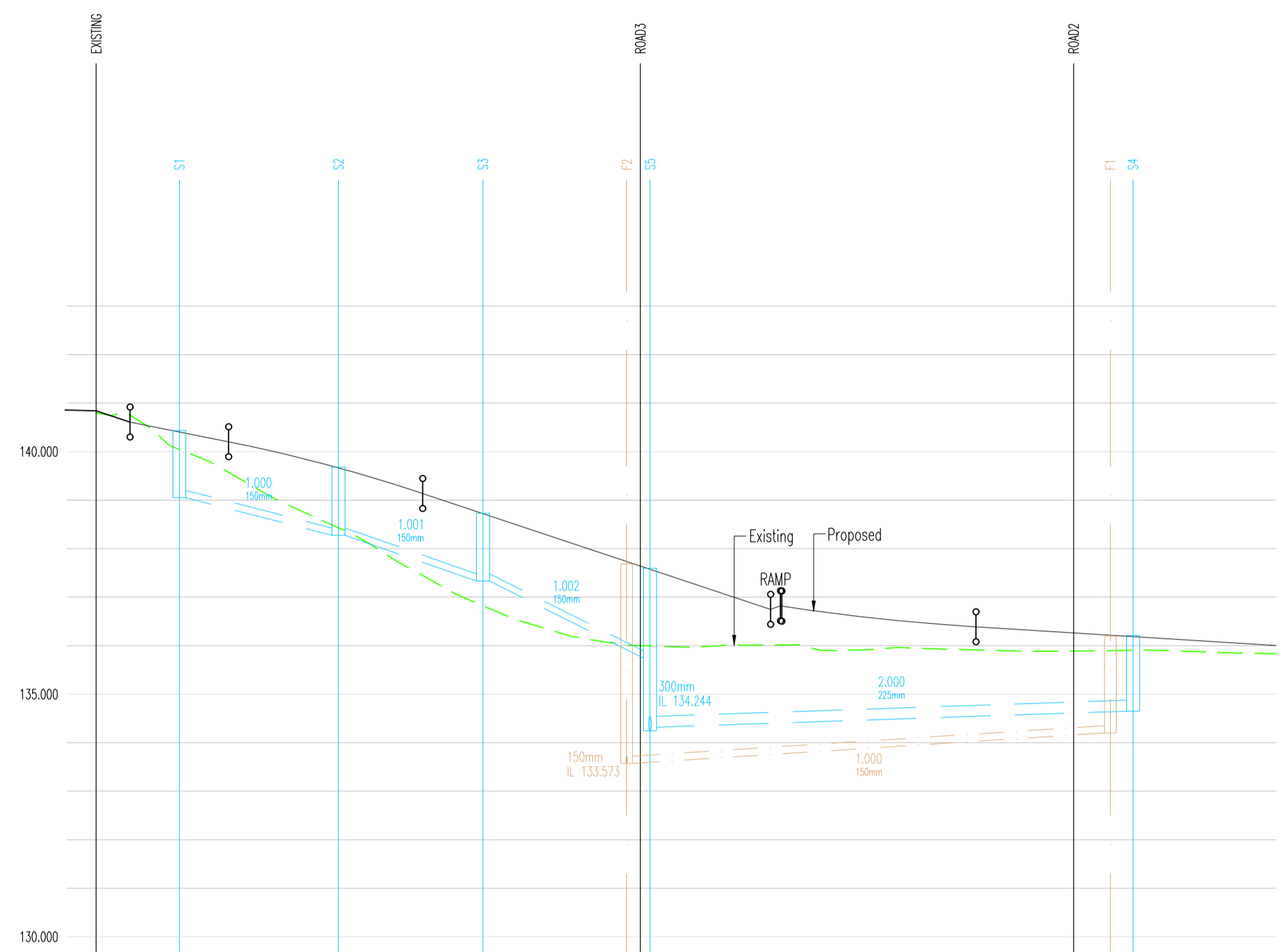


ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN

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 BSI 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 clayware 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.
- If plastic pipes are to be used then the following should apply:-
  - All adoptable sewers to be BSI Kitemark (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 dia foul & 150mm dia 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-C22) 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 feet's 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.



ROAD1	0+00	3+466	6+944	10+000	13+059	14+413	18+827	20+000	24+897	25+000	30+000	33+658	39+824	40+000	50+000	54+674	56+007	60+000	60+995	66+511	70+678	75+000	80+000	85+000	90+000	90+678	100+000	100+737	104+527	108+853	110+000	120+000	121+821			
CHANGING																																				
EXISTING GROUND LEVEL	140.800																																			
ALIGNMENT LEVEL	140.609																																			
VERTICAL ALIGNMENT	G=-4.000% 1: -25.0		L= 20.000 KF= -7.51880										G=-6.660% 1: -15.0		G= 7.000% 1: 35.3		G= 7.000% 1: 35.3		G= 11.42857 L= 20.000		G= -1.250% 1: -80.0															
HORIZONTAL ALIGNMENT	R= 40.000																																			
LEFT HAND CHANNEL		140.437	140.417	140.202	140.147	139.922	139.651	139.371	139.136	138.714	138.046	137.382	136.749	136.014	135.249	134.481	133.662	132.814	131.967	131.118	130.278	129.437	128.596	127.755	126.914	126.073	125.232	124.391	123.550	122.709	121.868	121.027	120.186	119.345		
RIGHT HAND CHANNEL		140.318	140.300	140.078	139.853	139.591	139.322	139.044	138.759	138.468	138.171	137.868	137.561	137.250	136.935	136.616	136.293	135.966	135.635	135.300	134.961	134.618	134.271	133.920	133.565	133.206	132.843	132.476	132.105	131.730	131.351	130.968	130.581	130.190	129.795	
STORMWATER COVER LEVEL		140.153																																		
STORMWATER INVERT		139.650																																		
STORMWATER DETAILS		Pipe 1.000 Dia 150 Circular CLAY 1 in 21 Class S Bed and Surround		Pipe 1.001 Dia 150 Circular CLAY 1 in 15 Class S Bed and Surround				Pipe 1.002 Dia 150 Circular CLAY 1 in 11 Class S Bed and Surround				Pipe 2.000 Dia 225 Circular CLAY 1 in 150 Class S Bed and Surround																								
STORMWATER LENGTHS		16.251		14.652				16.897				49.693																								
FOULWATER COVER LEVEL																																				
FOULWATER INVERT																																				
FOULWATER DETAILS																																				
FOULWATER LENGTHS																																				

ROAD2	0+00	2+750	4+750	10+000	15+000
CHANGING					
EXISTING GROUND LEVEL	136.889				
ALIGNMENT LEVEL	136.332				
VERTICAL ALIGNMENT	G= 4.000% 1: 25.0				
HORIZONTAL ALIGNMENT					
LEFT HAND CHANNEL		136.480	136.490	136.690	136.890
RIGHT HAND CHANNEL		136.343	136.353	136.553	136.753

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

IC	14.11.25	Preliminary	MI	MI	
Rev	By	Date	Revision	Chk	Appd.

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TITLE  
**LONGITUDINAL SECTIONS SHEET 1 OF 5**

PROJECT  
**COCKLEY HILL, KIRKHEATON**

CLIENT  
**GLEESON HOMES**

DRAWING STATUS  
**FOR APPROVAL**

Scale  
**1:500H 1:100V @ A1**

Date  
**NOV 25**

Drawn  
**IC**

Chk.  
**MI**

Org. No.  
**2298/03/06.01**

Rev  
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