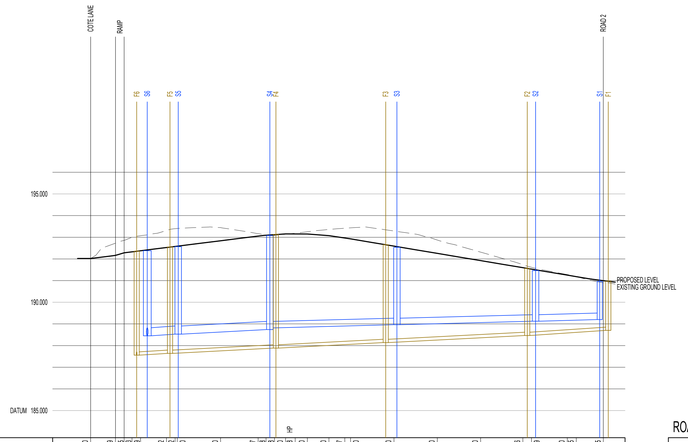
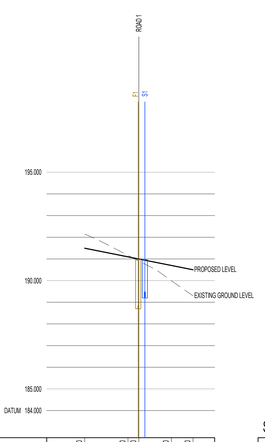
YORKSHIRE WATER REF
H-3-XXX-XXX



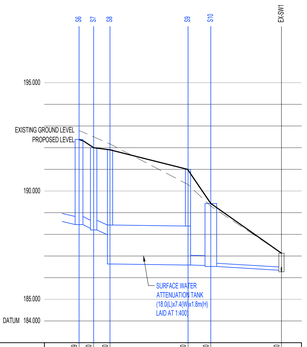
ROAD 1

CHAINAGE	0.000	5.729	7.745	11.545	17.822	19.822	20.000	30.000	39.867	42.478	45.000	47.456	50.000	55.000	59.867	60.000	70.000	80.000	90.000	99.726	101.725	110.000	112.002	118.315
EXISTING GROUND LEVEL	192.000	193.000			193.464			193.444		193.122			193.353		193.433		193.291	192.870	192.314	191.717		191.278		190.601
CENTRE LINE	192.019	192.163	192.326	192.479	192.339	192.464	192.589	192.714	192.839	192.964	193.087	193.155	193.151	193.074	192.926	192.759	192.591	192.424	192.257	192.089	191.922	191.754	191.587	191.420	191.252	191.083	191.085	191.086
VERTICAL ALIGNMENT	G= 2.500% 1: 40.0				L= 20.000 Kf= -3.42027			G= -3.347% 1: -29.9																
HORIZONTAL ALIGNMENT	R= 6.740			R= 5.763			R= 4.709													R= 10.153				
LEFT HAND CHANNEL	192.231	192.242	192.307	192.409	192.533	192.688	192.763	192.896	192.963	193.033	193.105	193.224	193.222	193.141	192.995	192.827	192.660	192.493	192.325	192.158	191.991	191.823	191.656	191.488	191.339	191.275	191.308	191.316
RIGHT HAND CHANNEL	192.125	192.134	192.224	192.271	192.396	192.471	192.646	192.765	192.843	193.018	193.087	193.082	193.005	192.837	192.669	192.503	192.355	192.188	192.020	191.853	191.686	191.518	191.351	191.185	191.038	190.962	190.969	190.976
STORMWATER COVER LEVEL	192.379				192.566				193.077				192.538							191.463				190.963
STORMWATER INVERT	190.450	190.630	190.505		190.740	190.815			190.865	190.865			190.125	190.125			190.200							
STORMWATER DETAILS	DIA 375 CIRC CONC 1 IN 84			DIA 375 CIRCULAR CONC 1 IN 102			DIA 300 CIRCULAR CLAY 1 IN 157				DIA 300 CIRCULAR CLAY 1 IN 201				DIA 300 CIRCULAR CLAY 1 IN 157									
STORMWATER LENGTHS	6.686			21.364			29.583				32.240				14.803									
FOULWATER COVER LEVEL	192.380			192.424			193.133			192.666			191.991				190.975							
FOULWATER INVERT	187.590	187.640	187.540		187.886	187.886			188.140	188.140			188.465	188.465			188.700							
FOULWATER DETAILS	DIA 150 CRC CLAY 1 IN 97			DIA 150 CIRCULAR CLAY 1 IN 100			DIA 150 CIRCULAR CLAY 1 IN 89				DIA 150 CIRCULAR CLAY 1 IN 102				DIA 150 CIRCULAR CLAY 1 IN 79									
FOULWATER LENGTHS	7.738			24.422			26.339				32.653				18.679									



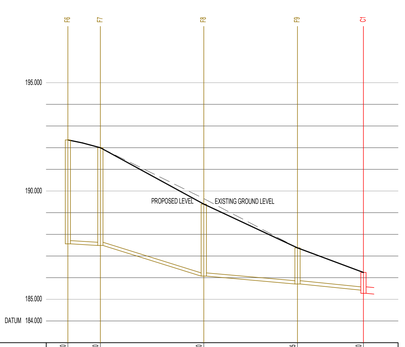
ROAD 2

CHAINAGE	0.000	10.000	12.500	20.000	25.000
EXISTING GROUND LEVEL	192.148	191.162	189.866	189.303	
CENTRE LINE	191.455	191.296	191.097	190.898	190.930
VERTICAL ALIGNMENT	G= -3.980% 1: -25.1				
HORIZONTAL ALIGNMENT					
LEFT HAND CHANNEL	191.426	191.077	191.028	190.829	190.630	190.421
RIGHT HAND CHANNEL	191.564	191.365	191.166	190.967	190.768	190.569
STORMWATER COVER LEVEL	190.963				
STORMWATER INVERT	189.200				
STORMWATER DETAILS					
STORMWATER LENGTHS					
FOULWATER COVER LEVEL	190.975				
FOULWATER INVERT	188.700				
FOULWATER DETAILS					
FOULWATER LENGTHS					



S6 - EX-SW1

GROUND LEVEL	192.375	192.340	192.170	190.300	189.200	187.130
STORMWATER COVER LEVEL	192.375	192.000	191.900	191.000	189.425	187.130
STORMWATER INVERT	185.950 185.950	187.373 187.373	187.585 187.585	186.585 186.585	186.585 186.585	186.345
STORMWATER DETAILS	DIA 375 CIRC CONC 1 IN 21	DIA 450 CIRC CONC 1 IN 17	1800 HIGH ATTENUATION TANK 1 IN 400		DIA 450 CIRC CONC 1 IN 263	DIA 150 CIRCULAR CLAY 1 IN 96
STORMWATER LENGTHS	3.371	3.774	18.000		5.265	16.297
FOULWATER COVER LEVEL						
FOULWATER INVERT						
FOULWATER DETAILS						
FOULWATER LENGTHS						



F6 - C1

GROUND LEVEL	192.380	192.000	189.650	187.375	186.242
STORMWATER COVER LEVEL					
STORMWATER INVERT					
STORMWATER DETAILS					
STORMWATER LENGTHS					
FOULWATER COVER LEVEL	192.380	192.000	189.650	187.375	186.242
FOULWATER INVERT	187.590 187.590	187.465 187.465	186.915 186.915	185.710 185.710	185.457
FOULWATER DETAILS	DIA 150 CIRCULAR CLAY 1 IN 100	DIA 150 CIRCULAR CLAY 1 IN 17	DIA 150 CIRCULAR CLAY 1 IN 50	DIA 150 CIRCULAR CLAY 1 IN 53	
FOULWATER LENGTHS	7.501	23.861	21.629	15.213	

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE FORTEM SECTION 104 LAYOUT 1018 - 102.
2. * LEVELS TO BE CHECKED AND VERIFIED AGAINST PROPOSED DESIGN PRIOR TO COMMENCEMENT OF WORKS.

YORKSHIRE WATER NOTES:

(THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE WORKS)

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.

MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.

WHERE B125 COVER AND FRAMES HAVE BEEN APPROVED, THIS MUST BE KITEMARKED, DUCTILE IRON, MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.

YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.

COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL 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 600MM X 600MM FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), "TECHNICAL BULLETIN" ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.

SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.

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 35 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 NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.

BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).

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 POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES 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.

ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS EN 13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNELS IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINNISH CANNOT BE OBTAINED ON THE BENCHING.

THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100MM DIA 40KN/m, 150MM DIA 40KN/m, 225MM DIA 49KN/m AND 300MM DIA 72KN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN 13476.

THE CLEARANCE OF THE CROSSOVER POINTS (MIN 300MM) BETWEEN THE SURFACE WATER SEWERS, FOUL WATERS SEWERS, RISING MAINS AND OTHER SERVICES SHOULD BE SUFFICIENT CLEARANCE TO PROVIDE 150MM GRANULAR BED AND SURROUND AROUND BOTH PIPES.

CLAY PIPE STRENGTH REQUIREMENTS	
100mm DIA	MINIMUM CRUSHING STRENGTH = 40kN/m
150mm DIA	MINIMUM CRUSHING STRENGTH = 40kN/m
225mm DIA	MINIMUM CRUSHING STRENGTH = 49kN/m
300mm DIA	MINIMUM CRUSHING STRENGTH = 72kN/m
CONCRETE PIPE STRENGTH REQUIREMENTS	
ALL CONCRETE PIPES SHOULD BE CLASS 120 (54kN/m)	

DRAWING SUBJECT TO THE APPROVAL OF YORKSHIRE WATER

DRAWING SUBJECT TO THE APPROVAL OF LOCAL AUTHORITY

Rev	Date	Amendments	By

Drawing Status.

TENDER PACK

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Client

ALFA HOMES

Project

COTE LANE, THURGOLAND

Drawing Title.

LONG SECTIONS

Drawn: PB
Checked: RD
Scale: 1:100V 1:500H @ A0
Date: JAN 2019

Drawing No. 1018 - 104
Rev. -

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