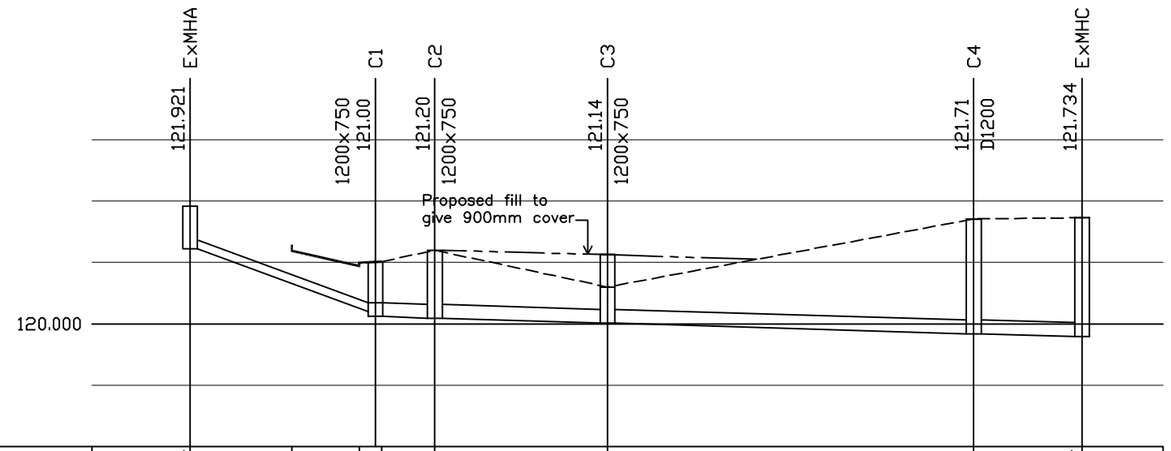
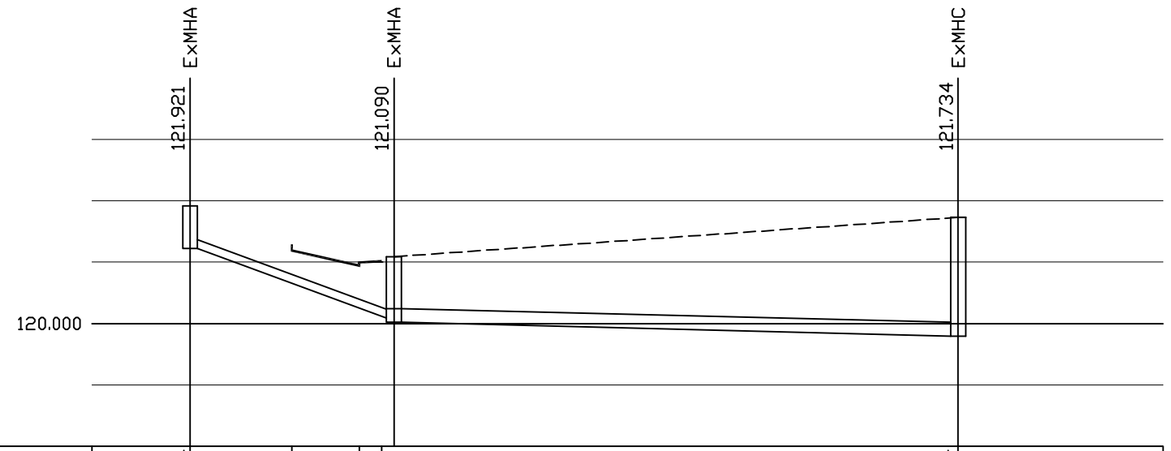


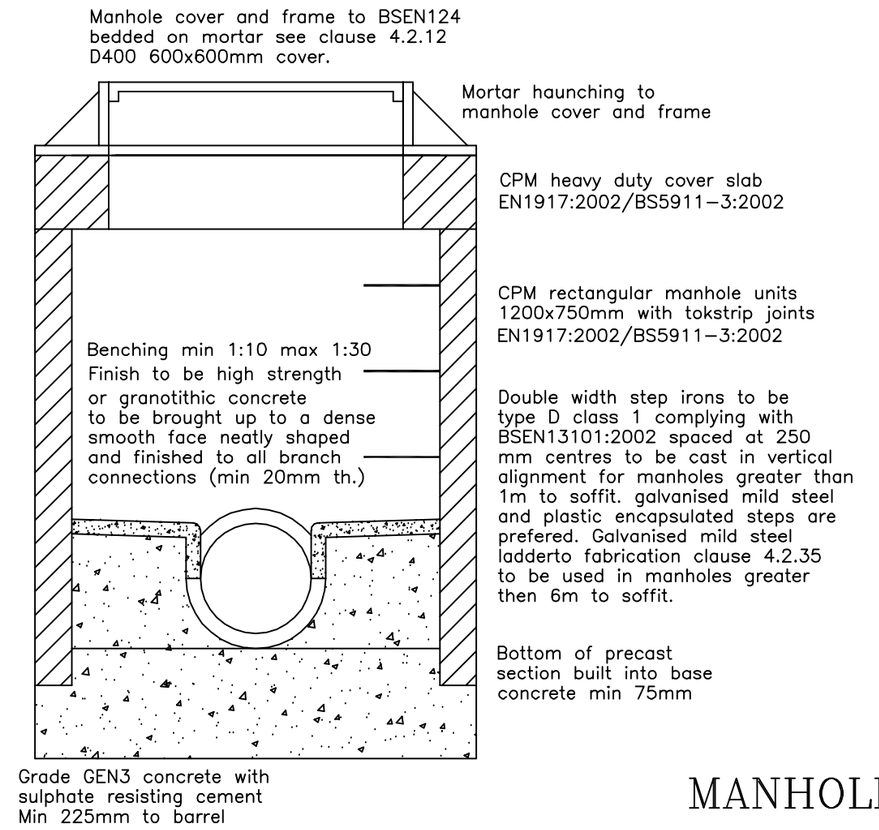
GROUND LEVEL	121.921	121.30 121.19 120.96 120.01	120.01	120.02 121.20	120.60	121.71	121.734
FOULWATER INVERT	121.221	120.196	120.121	120.092	120.010	119.837	119.794
FOULWATER DETAILS	EXISTING Dia 150 1 in 14.7		Dia 225 Circular CLAY 1 in 171 VC BSEN 295–1:1991		Dia 225 Circular CLAY 1 in 171 VC BSEN 295–1:1991	EXISTING Dia 150 1 : 203.5	
FOULWATER LENGTHS	15.11		4.84	14.07	29.87	8.84	
			Type S granular surround		Type S granular surround		

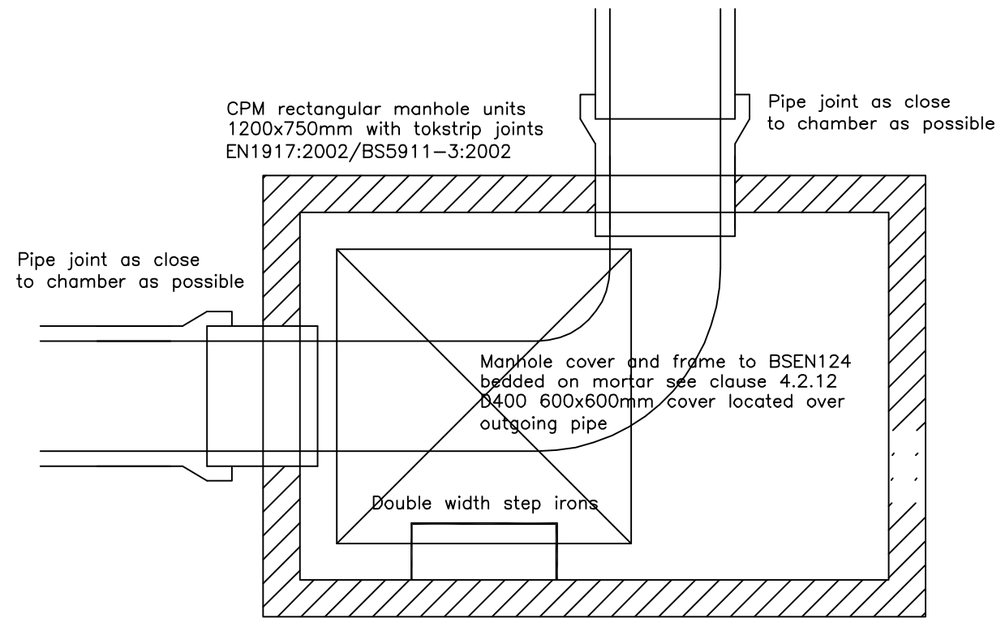
PROPOSED SEWER DIVERSION



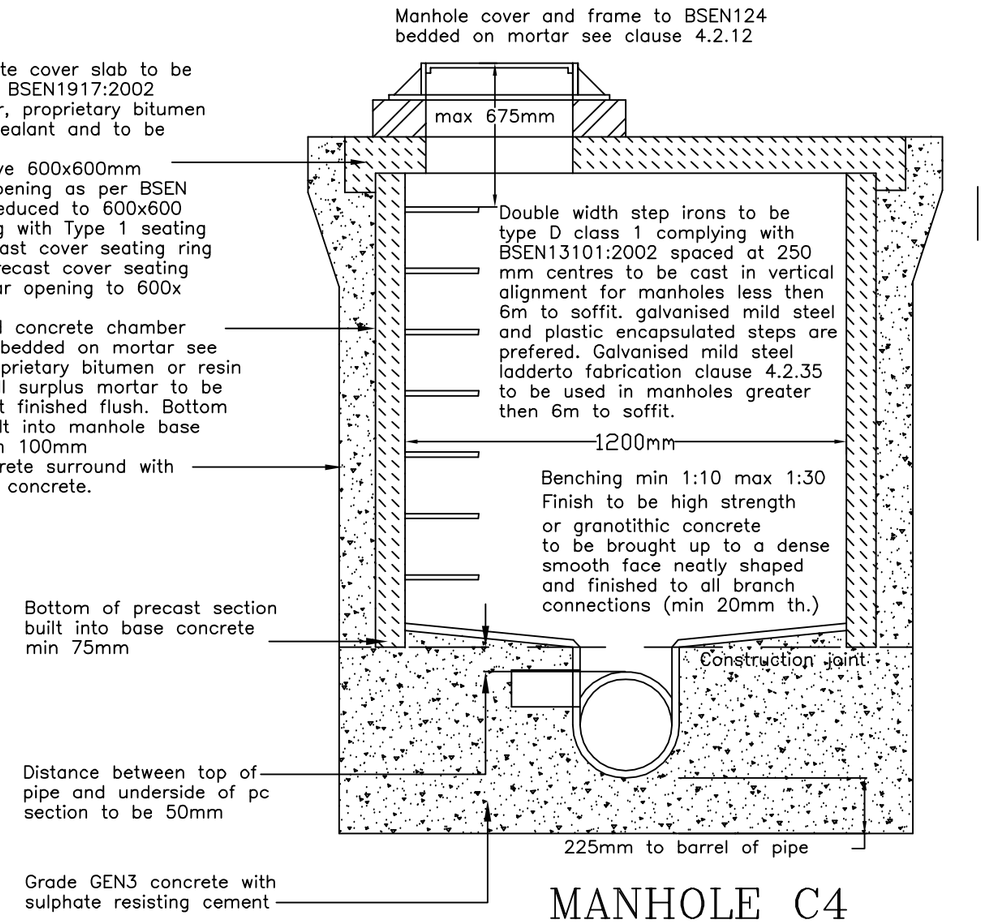
GROUND LEVEL	121.921	121.30 121.19 120.96 120.01 120.02	121.734	
FOULWATER INVERT	121.221	120.095 120.020	119.794	
FOULWATER DETAILS	EXISTING Dia 150 1 in 14.7	EXISTING Dia 150 1 : 203.5		
FOULWATER LENGTHS	16.61	46.01		

EXISTING SEWER SECTION





MANHOLES C1, C2 & C3



MANHOLE C4

Reinforced concrete cover slab to be kitmarked and to BSEN1917:2002 bedded on mortar, proprietary bitumen or resin mastic sealant and to be kitemarked
Cover slab to have 1200x675mm central clear opening as per BSEN 1917:2002 and reduced to 1200x600 mm clear opening with Type 1 seating ring. Type 2 precast cover seating ring laid on type 1 precast cover seating ring reducing clear opening to 600x 1200mm.
Precast reinforced concrete chamber rings to BS5911 bedded on mortar see clause 4.2.12 proprietary bitumen or resin mastic sealant. All surplus mortar to be removed and joint finished flush. Bottom of ring to be built into manhole base concrete minimum 100mm
Grade GEN3 concrete surround with sulphate resisting concrete.

Manhole construction – refer to CPA technical bulletin Sept 2001 outlining changes to relevent Britishe Product Standards BS5911–200:1994.
All precast concret products are to be kitemarked or they will be rejected as part of an adoptable system. Manhole cover slabs to BS5911
Manhole covers to have a clear opening of 600 x 600mm and shall be class D400 to BSEN124 with 150mm deep frames.
Filled ground must be filled and consolidated under the supervision of YW before any sewer works are carried out.
All adoptable sewers to be BSI kitemarked, (certified to WIS–4–35–01)

Plastic channels are not acceptable

All custom built ironwork to be hot dipped galvanised prior to final fitting.

Adoptable sewer pipes to be laid in max 3m lengths unless there is a specific operational need to lay longer lengths.

Yorkshire water are not obliged to accept filter drain / land drainagerunoff into the public sewer network or adoptable drainage network (directly or indirectly). An alternative method of disposal of land drainage runoff will therefore be required.

Cover slabs must carry the BSI kitemark or will be rejected by YW inspector. Where the clear opening of a kitmarked product is differant to that of the cover and frame a load bearing slab should be fitted bove the cover slab to bring the size down to 600x600mm for YWA specified cover size. Please refer to CPSA technical bullitan Autumn 2004 for kitemarked cover slab opening sizes.

Sulphate resistant cement (C20–DC2) and precast concrete productes must be used or a laboratory report provided proving that such precautions are not nessesary.

Sewers to be laid in class S bedding (150mm graular bed and surround. Where depth of cover is less then 1.2m in highways and verges (or less then 900mm in non vehile access areas) then a concrete slab should be provided above the granular bed and surround.

All adoptable sewer works and materials to be in accordance with Sewers for Adoption 6th edition. The relevant British / European anf Yorkshire Water standards / requirements / addendum & kitemarked

Sewers must have 5m clearance from trees and hedges see SfA6 for restrictions on tree planting / types

Bedding and backfill material to conform with the Water industry specification 4–08–02 (table A2)

R.A.B. ENGINEERING DESIGN LTD
12 BERRY HOLME CLOSE
SHEFFIELD S35 1AB
TEL.(0114)2464871

Black Stone Developments

Adj 20 Maple Road, Staincross
Drainage section & details

DRAWN BY rab

SCALE H1:500 V1:100 DATE Jan17

DRAWING No 1078-2 REV

PRELIMINARY ONLY