

(Maximum depth from cover level to soffit of pipe 3m)

Class M1, M2 or epoxy mortar
haunching to manhole cover & frame

Stainless steel (grade 316S31 BS.59)
polypropylene encapsulated all to BS.
parts 1-2, double step rungs (280mm
width at 250mm centres max.

High strength concrete topping (Min. 20mm thick) to be brought up to a dense, smooth face, neatly shaped & finished to all branch connections. Benching slope to be between 1 in 10 & 1 in 30

Toe holes to be provided in
channel of sewers above
600mm diameter

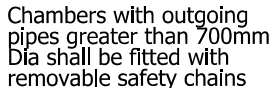
· Rocker pipe to table

ROCKER PIPES	
SEWER DIAMETER (mm)	EFFECTIVE LENGTH (mm)
150 TO 600	600
601 TO 750	1000
OVER 750	1250

- Minimum width of benching to be 225mm

- Pipe joint with channel to be located minimum 100mm inside face of manhole

Joint to be as close as possible to face of manhole to permit satisfactory joint and subsequent movement

S14 Concrete
Sulphate Resisting

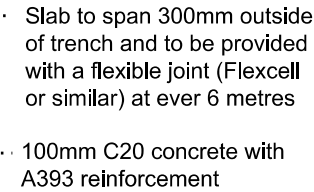
1. Backfilling under roads and paving: Backfill from top of granular bedding up to formation level with Granular Subbase Material Type 1 to Highways Agency specification for Highway Works 1998 Clause 803, laid and compacted in 150mm layers.

2. Backfilling under landscaped areas: Backfill from top of granular bedding up to underside of topsoil with selected Class B1 material, Class B1 fill whether selected from locally excavated material or imported, shall consist of uniform readily compactable material, free from vegetable matter, building rubbish and frozen material, or materials susceptible to spontaneous combustion, and excluding clods of loam or clay larger than 80 mm, and stones larger than 75 mm and materials of excessively high moisture content. Clay lumps and stones retained on 75mm and 37.5mm sieves respectively shall be excluded from the fill material. Laid and compacted in layers not exceeding 300mm.

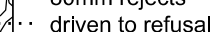
3. Do not use heavy compactors before there is 600mm of material over pipe.

Pipe Nominal Bore (DN)	Maximum Particle Size (mm)	Class of Bedding	Suitable materials	
			Imported granular materials (Note a)	Maximum CF value for as-dug granular material (Note b)
100	10	S	10mm nominal single- size	0.15
		B		0.30 (Note c)
		F		0.15
		N	Course, Medium or fine sand	
Over 100 to 150	15	S	14mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	Coarse, medium or fine sand	
Over 150 to 500	20	S	14mm to 5mm graded or 20mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	All in aggregate or coarse medium or fine sand	
Over 500 (Note d)	40	S	14mm to 5mm graded or 20mm to 5mm graded or 40mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	All in aggregate or coarse medium or fine sand	

- (a) Imported granular materials to include aggregates to BS 882, air-cooled blast furnace slag to BS 1047 and sintered pulverized-fuel ash to BS 3797
- (b) Compaction fraction value, See Appendix A
- (c) The higher the CF value for as dug bedding and sidefill materials the greater the required effort for adequate compaction.
- (d) Angular materials should be chosen to ensure sufficient support is provided to these heavy pipes. Crushed rock aggregates to BS 882 are recommended. Air-cooled blast furnace slag to BS 3797 or other granular materials may be used if they show a similar degree of angularity



CLASS S(S) CONCRETE
PROTECTION
(LESS THAN 1.2m COVER IN ROAD
OR 0.9m COVER IN LANDSCAPED
AREAS)



For use where unstable sand layers are encountered

1. Contractors must check all dimensions on site. only figured dimensions are to be worked from. Discrepancies must be reported to the architect or engineer before proceeding. © this drawing is copyright.

2. All works to be undertaken in accordance with sewers for adoption 6th addition with any Southern water additions or deletions

3. Until technical approval has been obtained from the relevant authorities, all drawings are issued as preliminary and not for construction. should the contractor commence site work prior to approval being given it is entirely at his own risk.

4. All adoptable drainage works to be constructed as detailed in the Southern Water sewerage design standards for adoption 7th edition, or as stipulated in Southern Water's addendum

C	Bedding details amended as per ADC Engineer comments	CLS	JGF	12-05-20	
B	Concrete surround & catch pit details retitled	JGF	JGF	20-04-20	
A	Additional details added	CLS	JGF	02-04-20	
REV	DESCRIPTION	DRN	CHD	DATE	
☒	PRELIMINARY	☐	INFORMATION	☐	TENDER
☐	CONSTRUCTION	☐	AS BUILT		

SCALE NTS@ A2 DATE FEB 2020

DRAWN CLS CHK JGF

DRAWING NO. 17748-BARN-5-910 REV C

TITLE YAPTON ROAD
BARNHAM

DETAILS



Woods Hardwick

Architecture | Engineering | Planning | Surveying

BEDFORD : HEAD OFFICE	BIRMINGHAM
15-17 Goldington Road	Fort Dunlop, Fort Parkway
Bedford MK40 3NH	Birmingham B24 9FE
T: +44 (0) 1234 268862	T: +44 (0) 121 6297784

ONLINE: mail@woodshardwick.com | woodshardwick.com