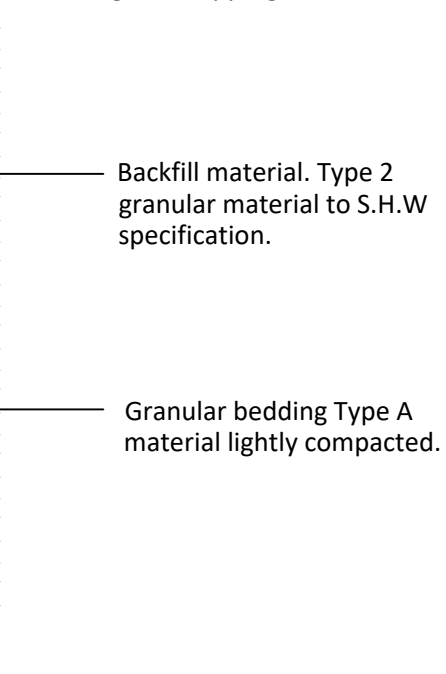
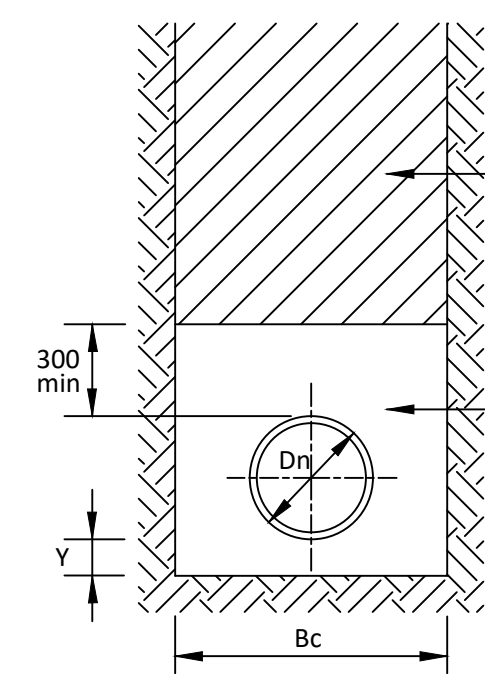
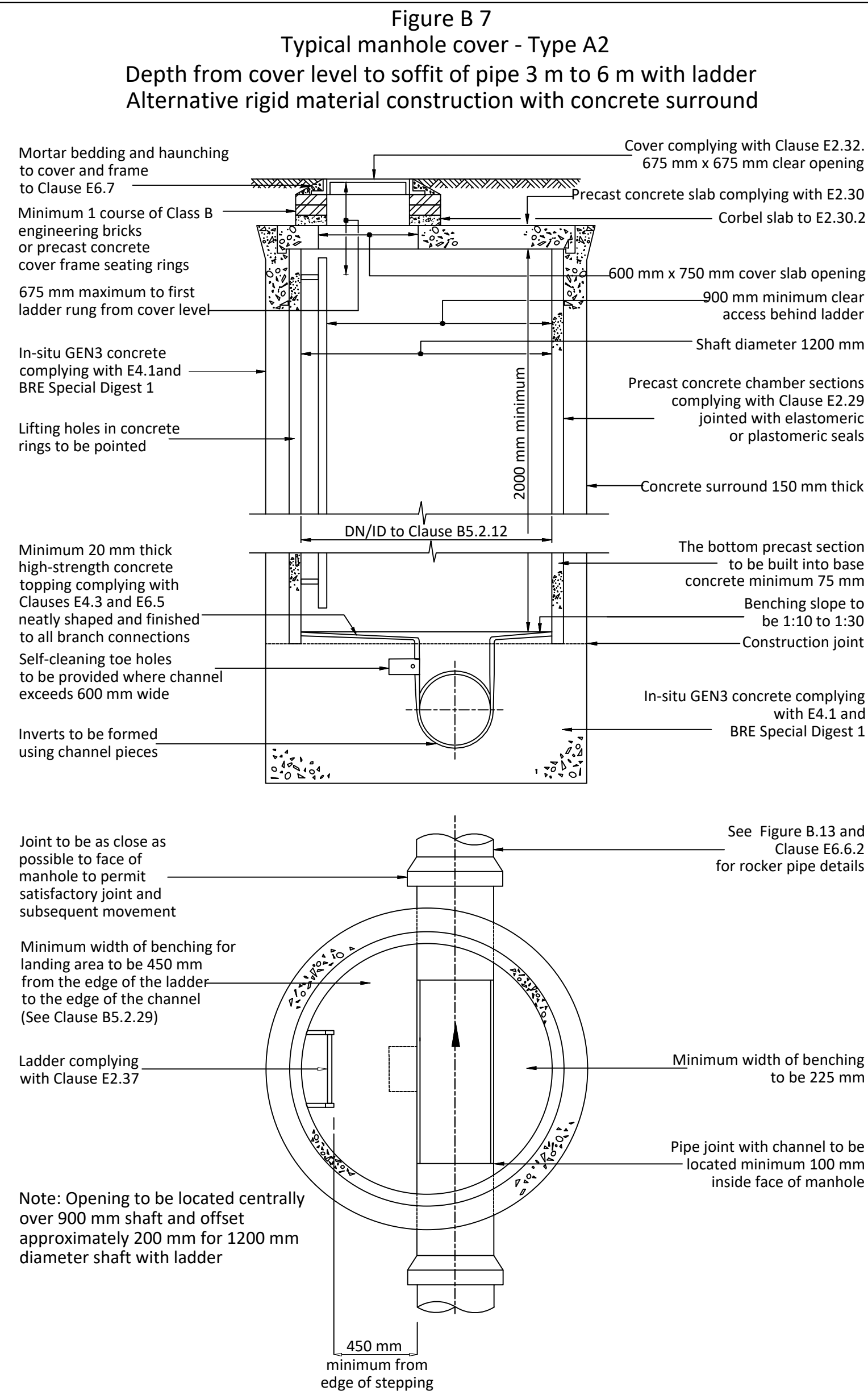




GRANULAR BEDDING

Nominal bore of pipe (mm)	Alternative Aggregate sizes (mm)	
	Single sized	Graded
100	-	-
150	10 or 14	14-5
225-300	14 or 20	14-5 or 20-5
375-525	14 or 20	14-5 or 20-5
>525	14, 20 or 40	14-5, 20-5 or 40-5

Granular bedding for pipes and backfilling material for temporary drains (trench sub-drains) shall consist of aggregates from natural sources to BS EN 13242 and BS EN 1744-1 or sintered pulverised fuel ash complying with the relevant provisions of BS 3892; sized in accordance with the above table

Selected fill material, 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 clay of liquid limit greater than 80 and/or plastic limit greater than 55 and materials of excessively high moisture content. Clay lumps and stones shall be retained on 100mm and 40mm sieves respectively.

TRENCH WIDTHS & KEY DIMENSIONS

Dia Dn (mm)	Width Bc (mm)		Y(mm)		L(mm)	Z MIN (mm)
	Max	Min	Y1 (Uniform Soil)	Y2 (Rock)		
100	550	450	100	200	18	150
150	600	490	150	200		150
225	700	580	150	200		150
300	750	680	150	200	18	150
375	1050	950	150	200		150
450	1150	1030	150	200		150
525	1200	1120	150	200	36	150
600	1350	1240	150	200		150
675	1450	1330	150	200		225
750	1500	1400	150	200	36	225
825	1600	1490	150	225		225
900	2100	1900	150	225		225
975	2150	1950	175	250	54	300
1050	2250	2050	175	275		300
1200	2500	2250	200	300		300
OVER 1200	O.D.+1000	O.D.+800	I.D./6	I.D./4	54	400

Figure B 10
Typical manhole detail - Type B
Depth from cover level to soffit of pipe 1.5 m to 3.0 m
Alternative Rigid material construction with concrete surround

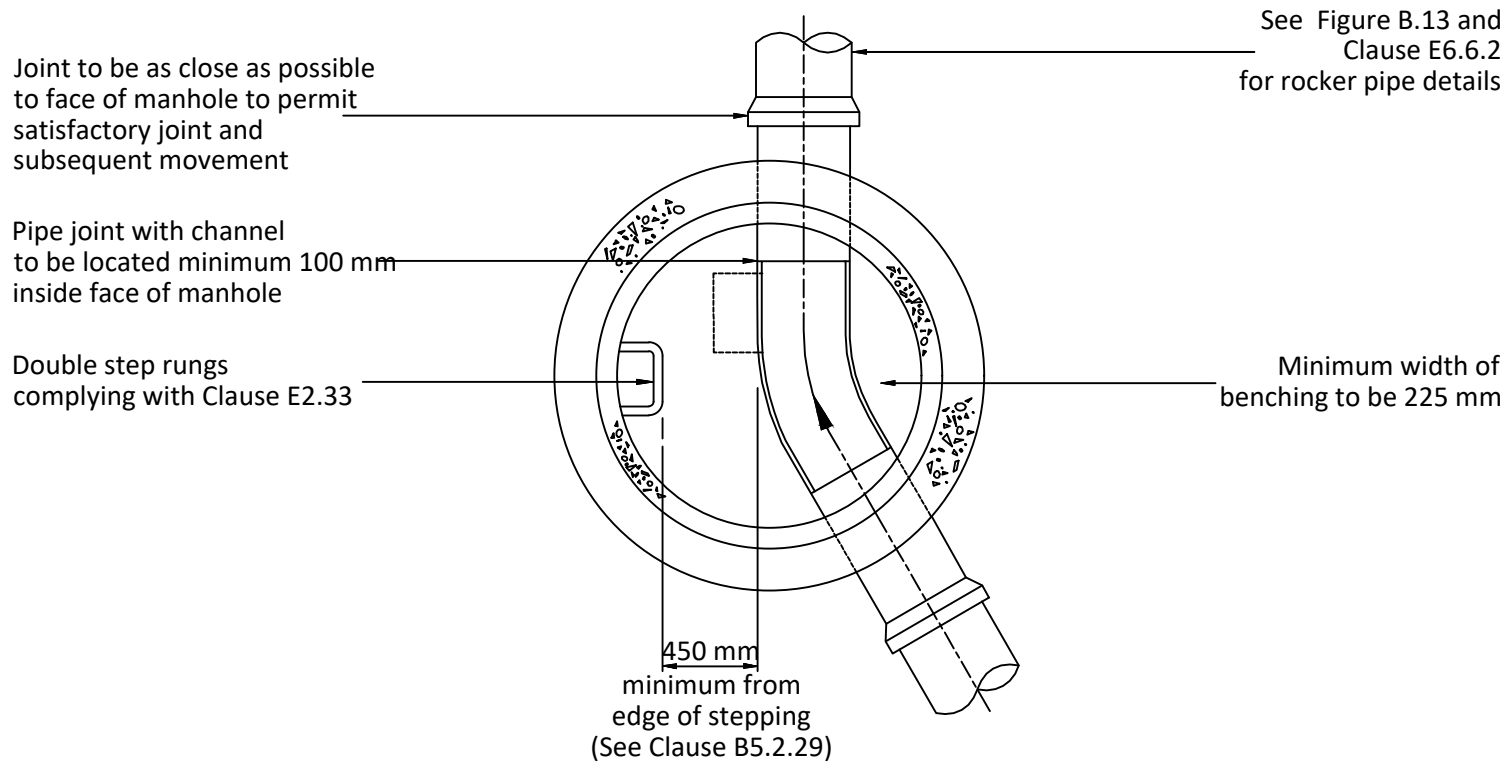
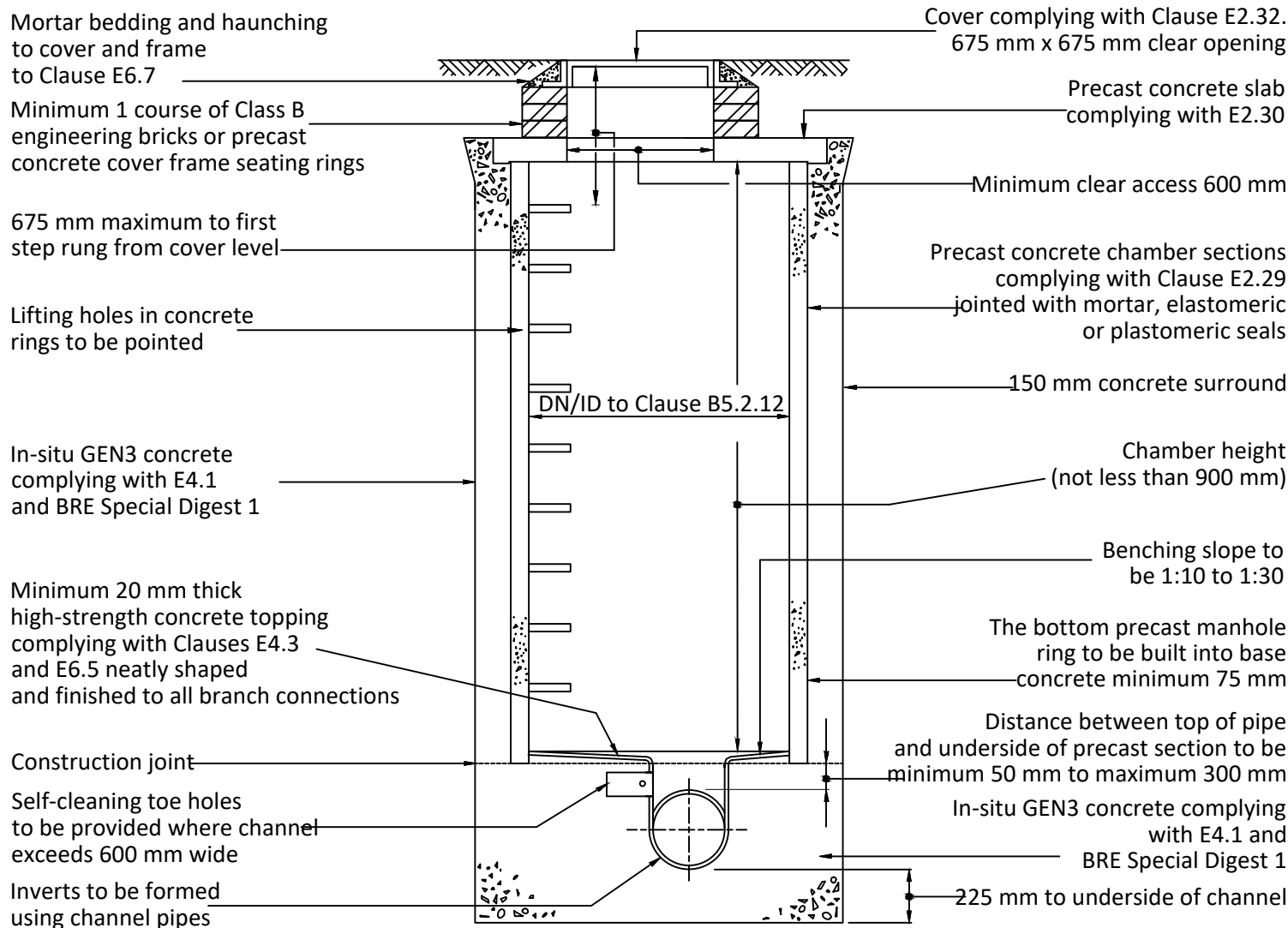
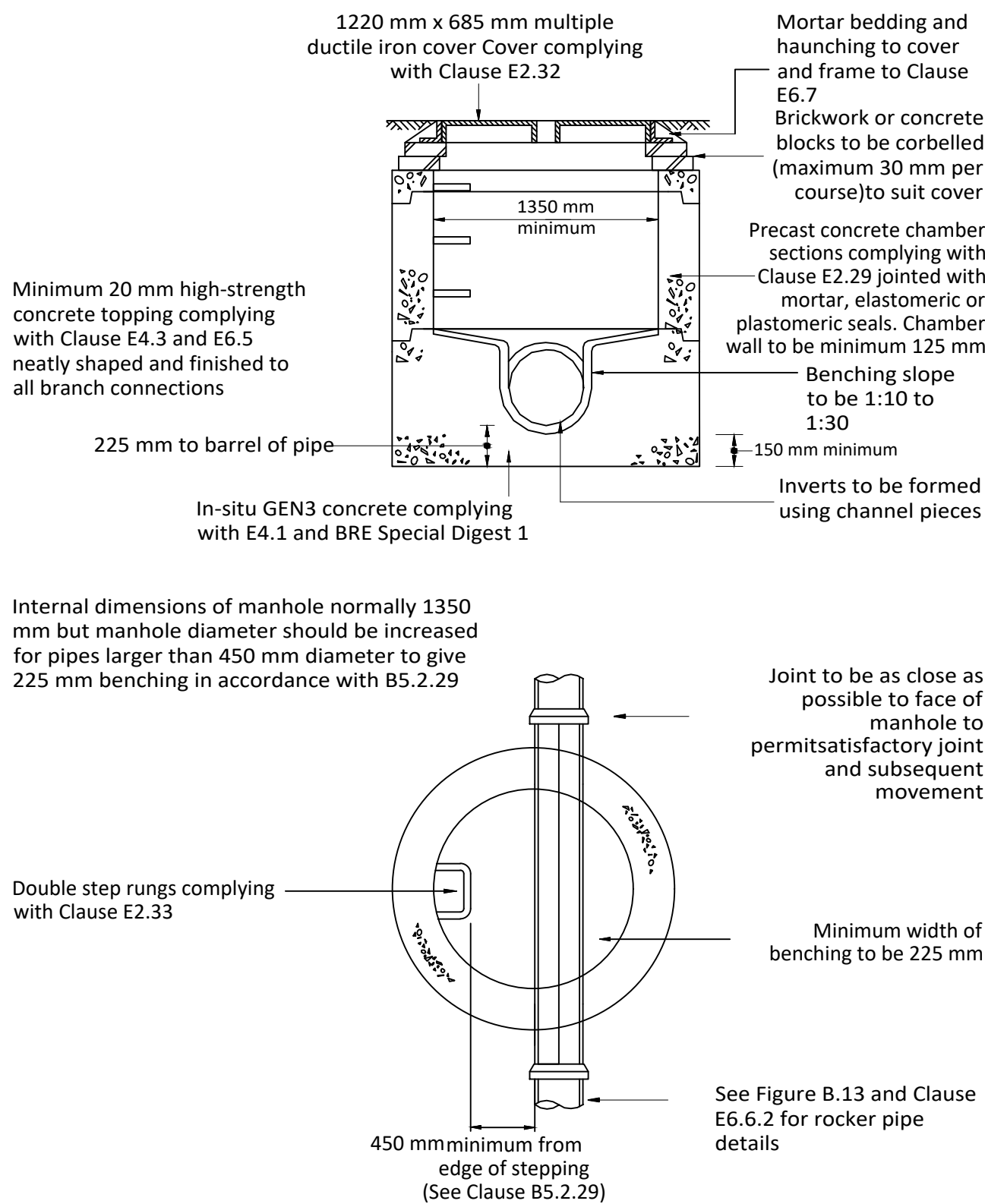
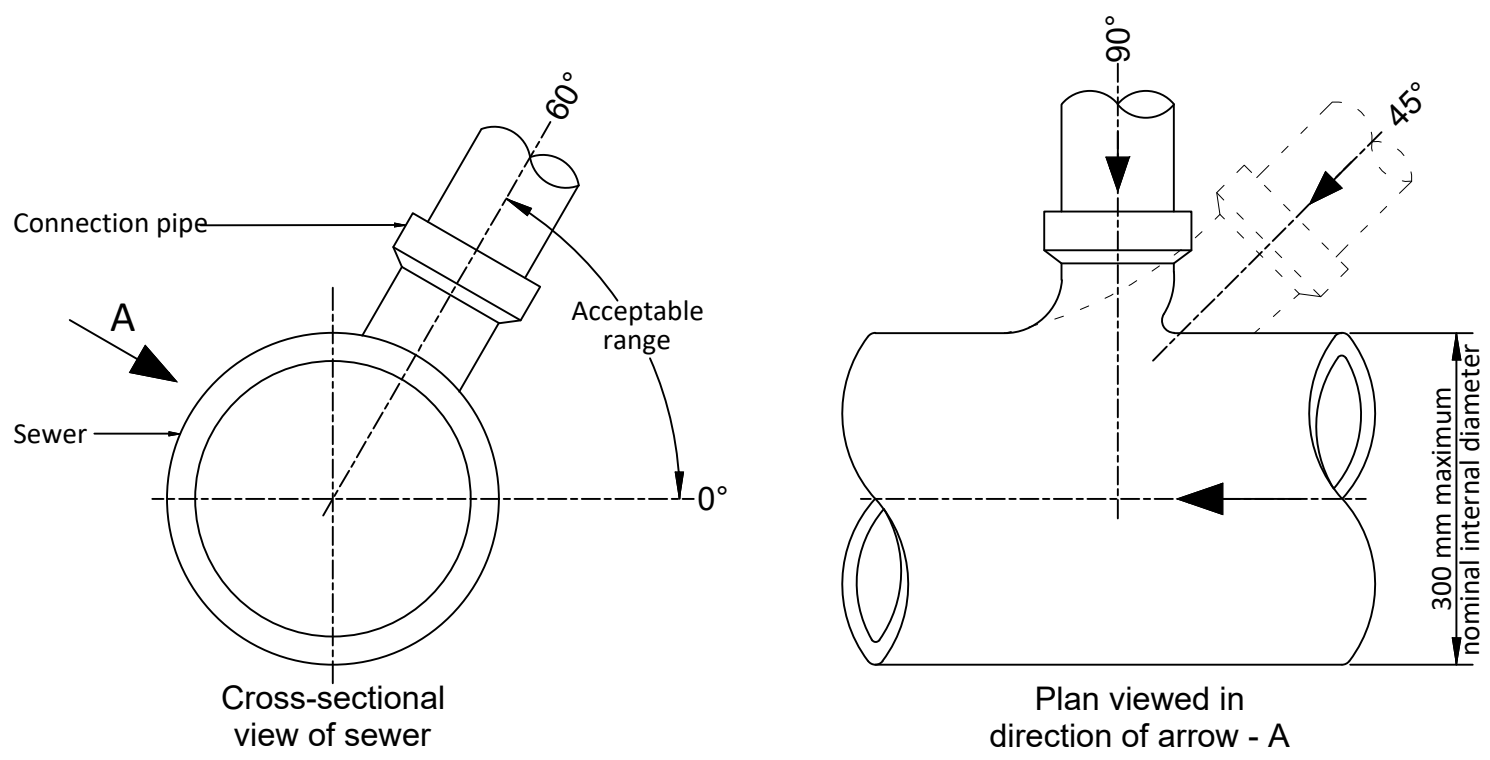


Figure B 15
Typical manhole detail - Type C
Depth from cover level to soffit of pipe less than 1.5 m
Rigid material construction

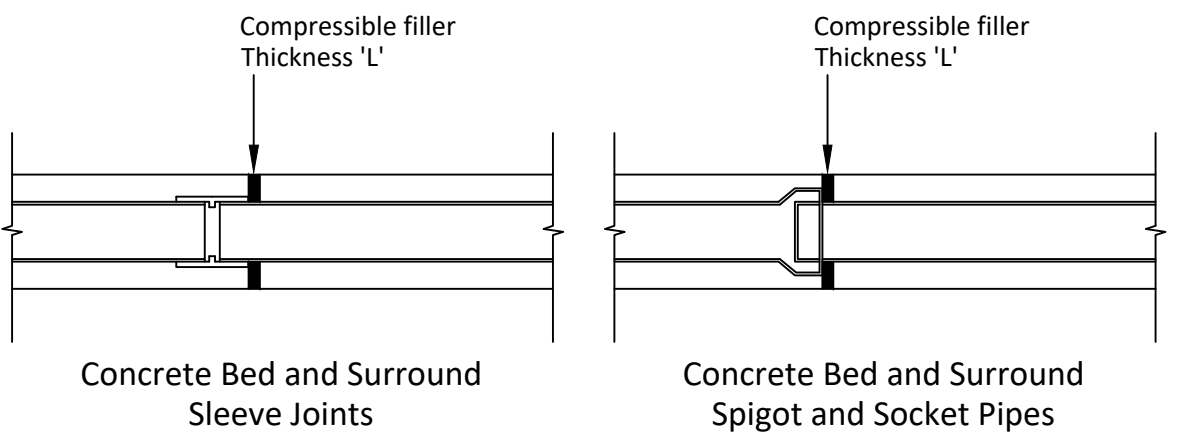
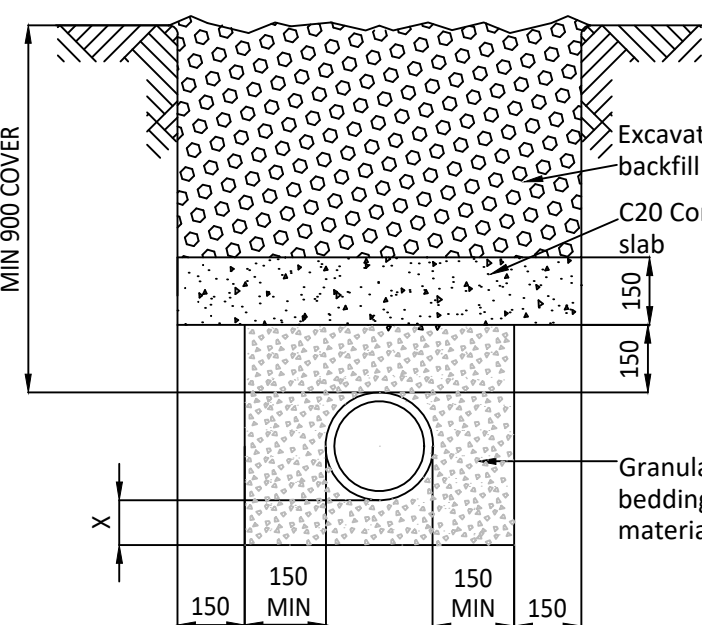


Note: The use of precast concrete chamber units to E2.29 with 150 mm GEN3 in-situ concrete complying with E4.1 and BRE Special Digest 1 in place of brickwork construction is permitted.

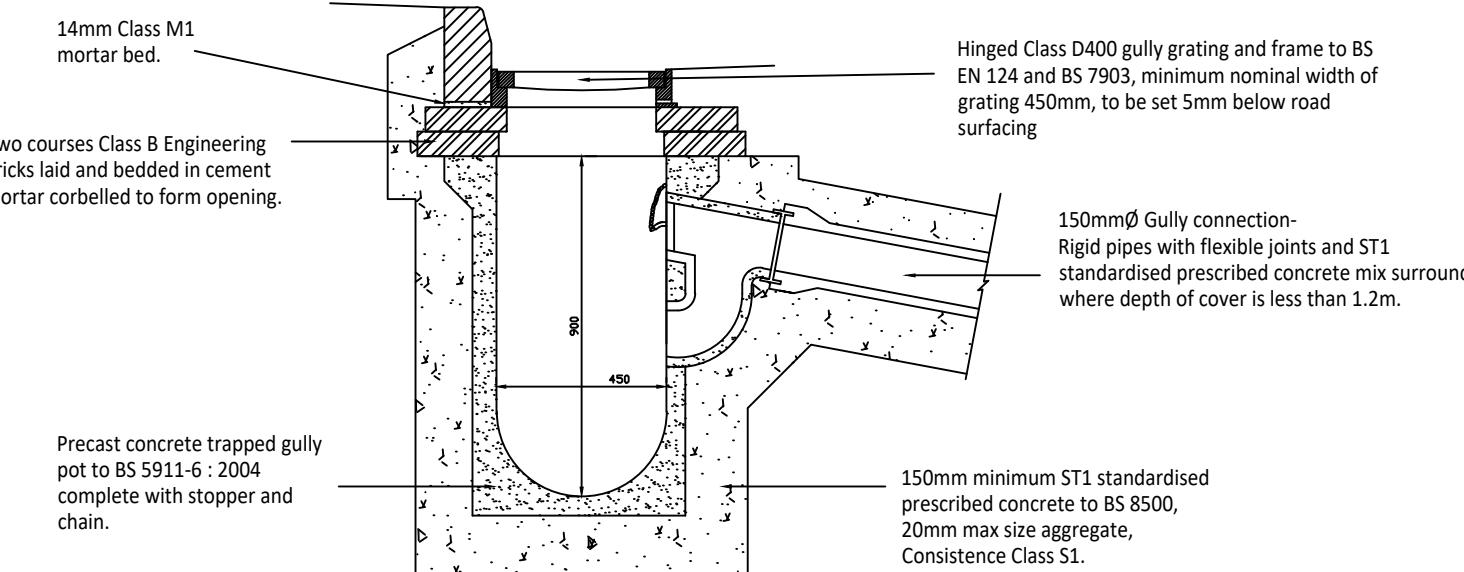
Figure B 26
Connections to sewer



CONCRETE SLAB PROTECTION



FLEXIBLE JOINT DETAILS



Gully Detail

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- GENERAL NOTES:
- Do not scale.
 - Refer to all other Project Drawings.
 - All sewers to comply with the requirements of Design and Construction Guidance together with any Southern Water addendum.
 - All public sewers are to be the subject of a Section 104 agreement of the Water Industry Act 1991.
 - Invert levels of existing manholes and sewers are to be checked on site before construction commences and results reported to engineers.
 - All manhole ironworks to comply with BS EN124, and be stamped with BS Kitemark. Covers to suit loading as below:
 - Carriageways and Roads - D400
 - Driveways and Verges - C250
 - Footways and Pedestrian Areas - B125
 - Gardens/Landscaping - A15
 - All sewer pipes, up to, and including 600mm are to be PVC-U to BS EN13476-2. Pipe manufacturer to be IWNL approved supplier.
 - All drainage shall be installed and tested strictly in accordance with the Manufacturers' printed instructions, BS EN 752, BS EN 1601, Thames Water requirements and the Building Regulations.
 - All bedding shall be Class S unless noted otherwise.
 - All trenches under existing and proposed public highways are to be backfilled with thoroughly compacted Type 1 granular sub-base material.
 - Drainage laid beneath roads and areas of vehicular access (car parking etc) with less than 1200mm of cover shall be encased in concrete bed and surround with associated movement joints. Drainage laid beneath paths, footways and pedestrian areas with less than 900mm of cover shall be similarly treated.
 - Chambers with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety devices.
 - The use of precast concrete products made with sulphate resisting cement is mandatory, unless a laboratory report proves such precautions are not necessary.
 - All gully connections to use a minimum diameter pipe of 150mm and to be surrounded by a minimum of 150mm of grade C8/10 concrete over its full length (which should not exceed 15m) and its connection to the carrier system.
 - All laterals to be 150mm laid at 1:80 (surface), 1:60 (foul) unless otherwise noted.

- DRAINAGE NOTES:
- Do not scale.
 - Refer to all other Project Drawings.
 - All drainage to be in accordance with Document H of the Building Regulations, together with NHB Standards Chapter 5.3 & BS8301.
 - All private drains to be 100mm diameter unless stated otherwise.
 - Where pipes pass through footings, retaining or screen walls, laterals to be provided over drains.
 - Where inverts are less than 0.6m deep, inspection chambers (min dia 190mm) or access fittings (225x100mm) to be used, elsewhere proprietary plastic, brick or pcc ics to be used (sized in accordance with table 11 of Approved Document H).
 - All gullies connected direct to drains to be roddable.
 - Rainwater downpipes to be easily removable for rodding or to be provided with rodding access at ground level.
 - Unless noted otherwise FW ICs & REs to be 0.6m below DPC level, SW ICs & REs to be 0.45m.
 - Adequate precautions in accordance with Approved Document H and manufacturer's recommendations to be taken to protect drains (particularly plastic) at shallow depths.

ALL PIPE BEDDING TO BE CLASS 'S' GRANULAR SURROUND UNLESS NOTED OTHERWISE ON THE DRAWING

P1	02/22	First Issue		CB	SM
Rev	Date	Description	Drawn	Checked	

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REDROW HOMES
Project
LAND SOUTH OF A259, ANGMERING

Title
FULL APPLICATION DRAINAGE CONSTRUCTION DETAILS SHEET 1

Status
FOR APPROVAL

Scale	Date	Drawn	Checked
AS SHOWN@A1	FEB 2022	CB	SM
Drawing No	Revision		
A334-FA-55	P1		