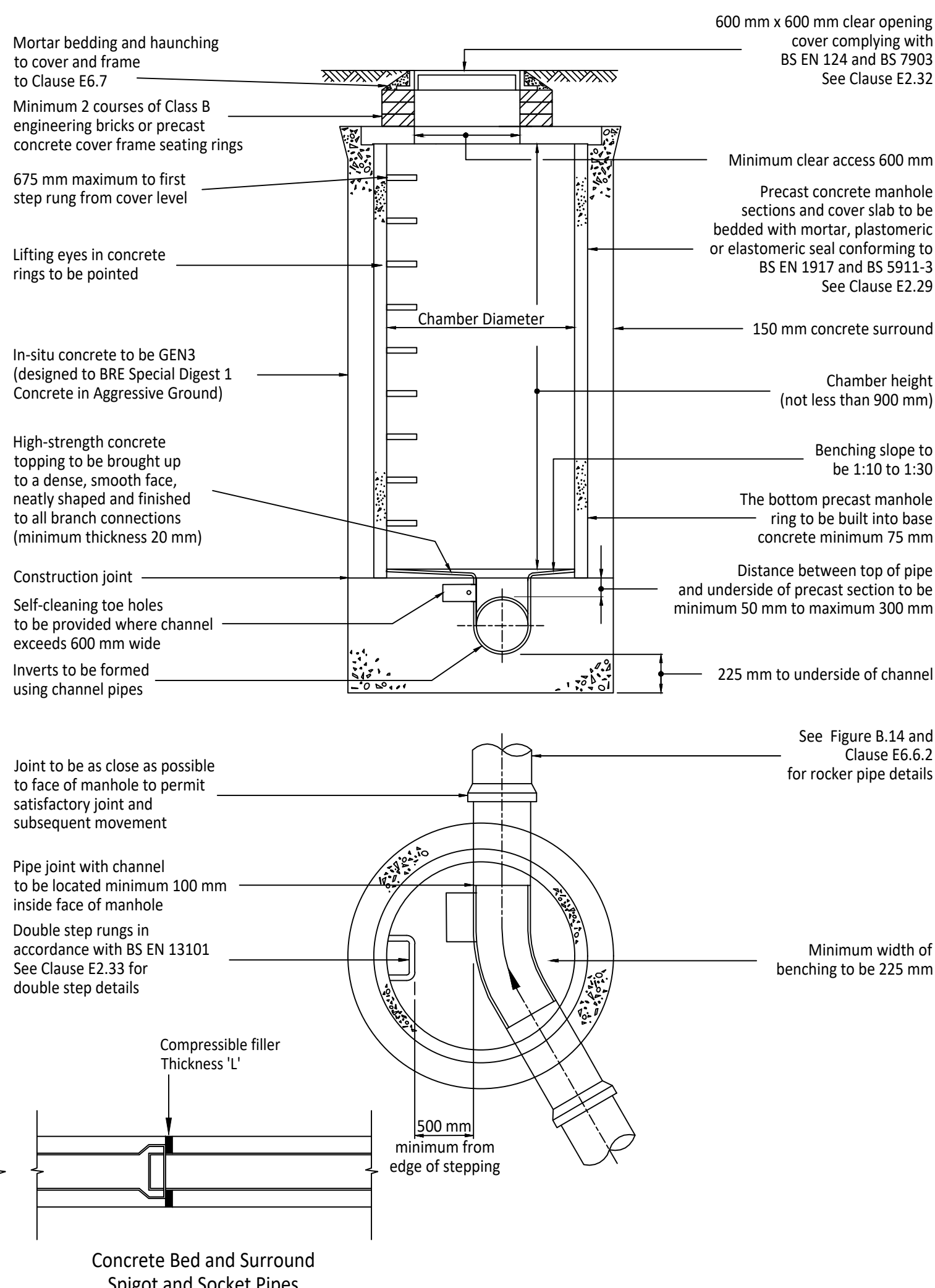


ADOPTABLE MANHOLE DETAIL - TYPE 2
Maximum depth from cover level to soffit of pipe 3.0 m



Plastic chambers and rings shall comply with BS EN 13598-1 and BS EN 13598-2 or have equivalent independent approval

Sited in driveways/paved areas

Labels for Driveway/Paved Areas:

- Mortar bedding and haunching to cover and frame to Clause E6.7
- 150 mm deep concrete collar
- Minimum radius to be 500 mm for a 100 mm diameter pipe and 600 mm for a 150 mm diameter pipe to allow entry of maintenance equipment
- Joints between base and shaft and shaft components to be fitted with watertight seals
- Granular bedding material
- Cover complying with BS EN 124 and BS 7903
- Minimum internal dimensions: 180 mm diameter or 225 mm x 100 mm
- DOT Type 1 sub base (thickness varies) or concrete surround
- Base unit to have all connections with a diameter greater than 150 mm set at soffit level

Sited in domestic gardens

Labels for Domestic Gardens:

- Mortar bedding and haunching to cover and frame to Clause E6.7
- Topsoil
- Minimum radius to be 500 mm for a 100 mm diameter pipe and 600 mm for a 150 mm diameter pipe to allow entry of maintenance equipment
- Joints between base and shaft and shaft components to be fitted with watertight seals
- Granular bedding material
- Cover complying with BS EN 124 and BS 7903
- Gardens - Class A15
- See Clause E2.32
- Minimum internal dimensions: 180 mm diameter or 225 mm x 100 mm
- DOT Type 1 sub base (thickness varies) or concrete surround
- Base unit to have all connections with soffit levels set no lower than that of the main pipe

Access Chamber Detail

Labels for Access Chamber Detail:

- Flexible inlet/outlet and/or bend (maximum angle 45°)
- Unused inlet to be sealed and watertight
- Joint to be as close as possible to face of chamber to permit satisfactory joint and subsequent movement

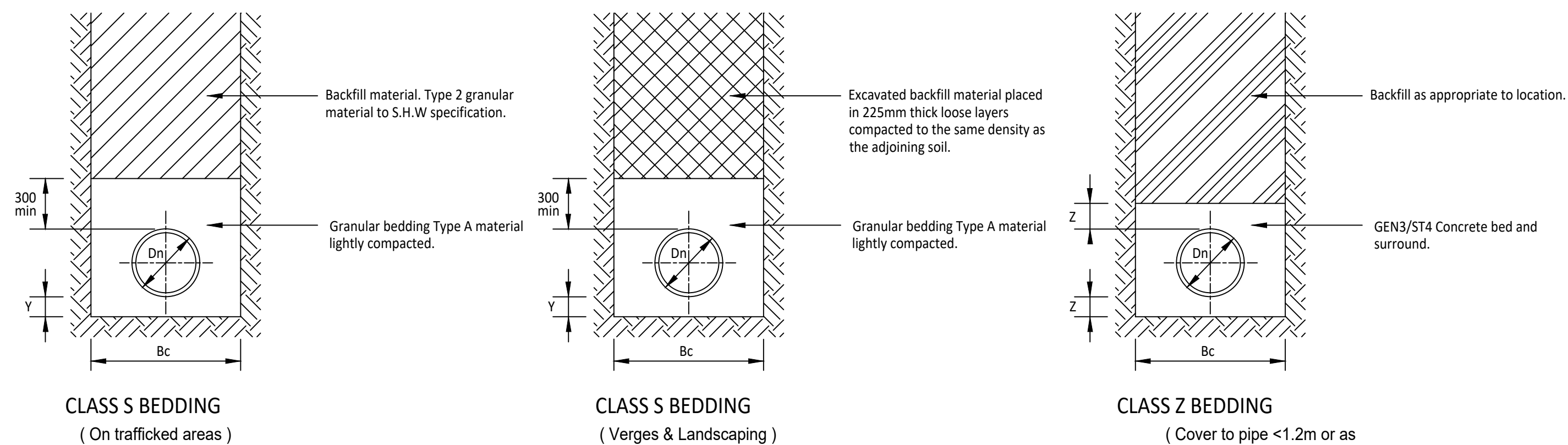
Where chambers are positioned on 90° corners, always use the main channel by fitting a 45° bend on the inlet and outlet

Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

1. Do not scale.
2. Refer to all other Project Drawings.
3. All sewers to comply with the requirements of the water authorities publication "Sewer Sector Guidance (SSG)" together with Southern Water's Technical Advisories.
4. All public sewers are to be the subject of a Section 104 agreement of the Water Industry Act 1991.
5. Invert levels of existing manholes and sewers are to be checked on site before construction commences and results are reported to the Engineer.
6. All manhole inverts to comply with BS EN1424, and be stamped with BSI Kitemark. Covers to suit loading as below;
 - Carriageways and Roads - D400
 - Driveways and Verges - C250
 - Footways and Pedestrian Areas - B200
 - Gardens/Landscaping - A15
7. All sewer pipes, up to, and including 225mm are to be vitrified clay to BS EN252.
8. All sewer pipes greater than 225mm diameter and above concrete pipes to BS EN1916.
9. All drainage shall be installed and tested strictly in accordance with the Manufacturers' printed instruction BS EN 752, BS EN 1601, Local Water Authority requirements and the Building Regulations.
10. All bedding shall be Class 5 untested otherwise.
11. All trenches under existing and proposed public highway are to be backfilled with thoroughly compacted Type 1 granular sub-base material.
12. Drainage shall be beneath footways 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 encased in concrete bed and treated.
13. Chambers with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety devices.
14. The use of precast concrete products made with sulphate resistant cement is mandatory unless a laboratory report proves such precautions are not necessary.
15. All gully connections to use a minimum diameter pipe of 150mm and to be surrounded by a minimum of 150mm of grade C8/C10 concrete over its full length (which should not exceed 15m) and its connection to the carriage system.

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

Maximum depth from cover level to soffit of pipe in areas subject to vehicle loading 3 m, non-entry



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	36	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

Selected fill material, whether selected from locally excavated material or imported, shall consist of uniform, readily compatible 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.

Form vertical construction joints in GEN3/ST4 concrete surround at face of every pipe joint using compressible board (refer to table for thickness 'L', precut to finished profile of concrete and pipe. Fill any gap between spigot and socket with resilient material to prevent entry.

