

The diagram illustrates a trench wall assembly with the following labeled components from top to bottom:

- Mortar bedding and haunching to cover and frame to Clause E8.7**: The top layer above the concrete blocks.
- Brickwork or concrete blocks to be corbelled (maximum 30 mm per course) suit cover**: A layer of masonry blocks.
- Precast concrete chamber sections complying with Clause E2.29 jointed with mortar, elastic or plastic seals. Chamber walls to be minimum 125 mm**: The main structural wall section.
- Benching slope to be 1:10 to 1:30**: The sloped face of the precast chamber.
- Inverts to be formed using channel pieces**: Horizontal reinforcement at the base of the wall.
- 60 mm minimum**: The thickness of the invert layer.
- In-situ GEN3 concrete complying with E4.1 and BRE Special Digest 1**: The base concrete layer.
- Under-slab to fit-in with 1200 x**: The bottom-most layer under the slab.
- 1350 mm minimum**: The width of the trench opening.
- Cover slab to fit-in with 1200 x**: The top surface slab.
- 1220 mm x 685 mm multiple ductile iron cover Cover complying with Clause E2.32**: The circular manhole cover at the top.

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.

PLAN

Plastic chambers and rings shall comply with Clause E2.31

Mortar bedding and haunching to cover and frame to Clause E6.7

Surface course

Binder course

Base course

Minimum 50 mm gap between slab and chamber unit

Flexible seal
(Seal needs to be watertight and provide a suitable specification for the details and material)

Temporarily cap shaft during construction

Joints between base and shaft and between shaft components to be fitted with watertight seals

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

Cover complying with Clause E2.32

If distance from cover level to soffit of pipe is > 1m, access opening shall be restricted to 350 mm diameter or 300 mm x 300 mm

Class B engineering brickwork or precast concrete cover frame

sealing rings

Precast concrete slab or in-situ concrete slab support cover and frame

Granular type 1 sub-base material to Clause E2.43 (thickness varies)

Minimum internal dimensions 450 mm diameter or 450 mm x 450 mm

Minimum 150 mm thick granular type 1 sub-base material to Clause E2.43 or GEN3 in-situ concrete surround complying with E4.1 and BRE Special Digest 1 in accordance with the manufacturer's instruction

Base unit to have all connections with soffits levels set no lower than that of the main pipe

Granular bedding material

Invert of connecting pipe at least 50 mm above that of the main pipe

Not to scale



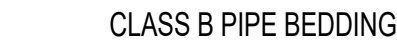
PIPE BEDDING FOR RIGID APPLIES (NON ADOPTIVE DRAINS)

 Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter

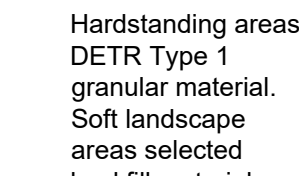
 Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.

 Selected fill or granular fill free from stones larger than 40mm

'x' - Denotes external pipe diameter.



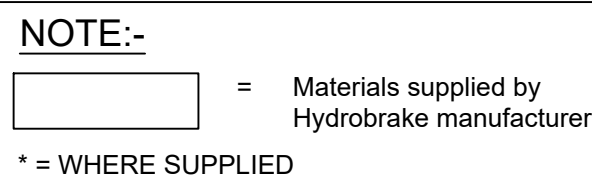
(Not To Scale)



(Scale 1:25)

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

1. All adoptable risers, bends and junctions shall be verified dry in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.
2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to the sewer is greater than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class 2 bedding.
3. All private building drainage shall be constructed in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for floor drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
4. Where a pipe is within 1m of a foundation the trench shall be filled with class G3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class G3 concrete.
5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class G3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boots (fibresorb or polyseal) shall be provided at a maximum of 6m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
7. All sumps shall have rodless access plates fitted at all bases (ground floor level).
8. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
9. Any discrepancy between the drawing and site should be reported immediately to the Engineer.
10. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance



Note: All dimensions and specifications shall be confirmed with manufacturer prior to construction

shall be confirmed with

(Scale 1:25)

Diagram illustrating a pivoting bypass door in a closed position. The door is labeled "Pivoting bypass door*" and is shown with an "INTAKE FLOW" arrow pointing towards it. The door is partially open, revealing a circular opening with a diameter labeled "1'6\"".

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