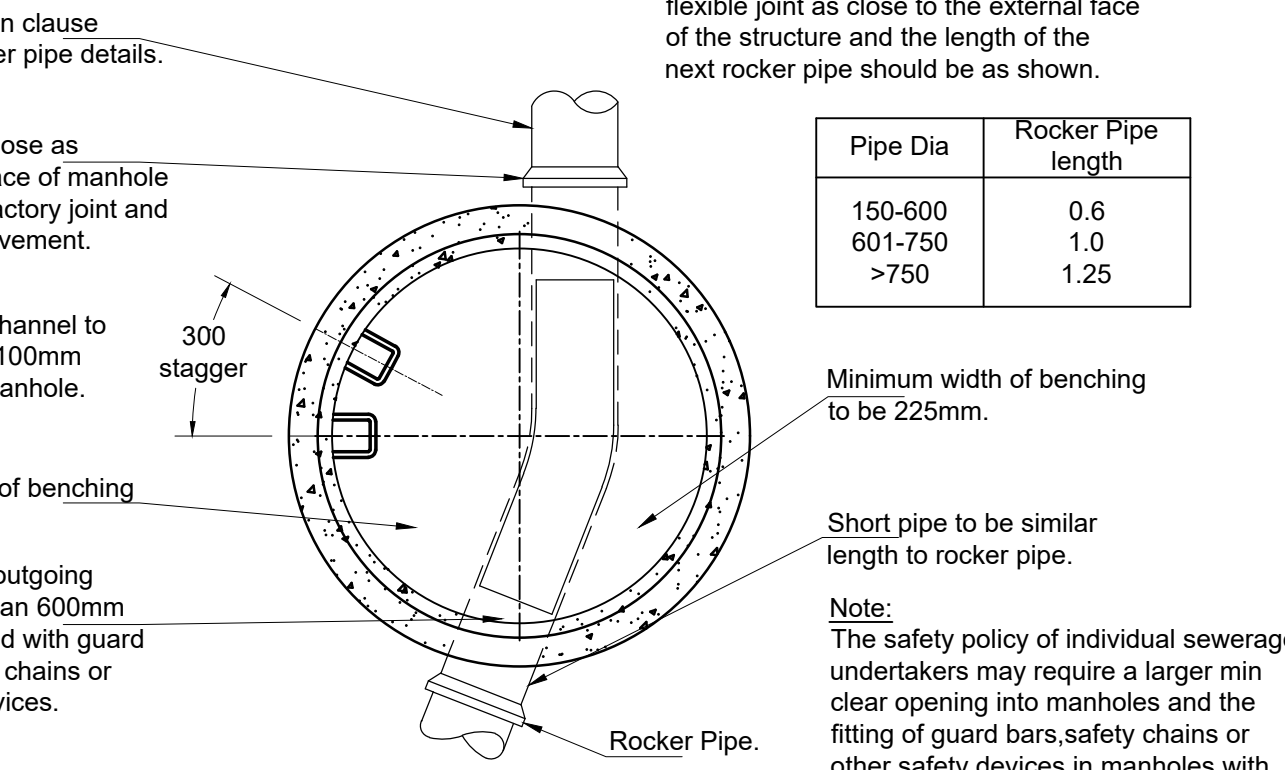
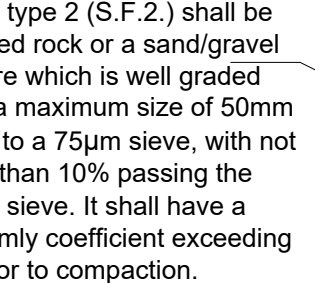


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5. All dimensions shown on this drawing are in millimeters unless noted otherwise.
6. If the Contractor considers that they do not have sufficient information to safely complete the works detailed on this drawing, they should contact the Engineer.
7. All works are to be carried out in accordance with the Building Regulations (as amended) and to the approval of Building Standards.



Backfilling and surfacing in accordance with 5.3.4. Selected Filling type 2 (S.F.2) shall be crushed rock or a sand/gravel mixture which is well graded from a maximum size of 50mm down to a 75µm sieve, with not more than 10% passing the 75µm sieve. It shall have a uniformly coefficient exceeding 10 prior to compaction.

Granular bed and surround to clause 5.5.4. See Table 1.



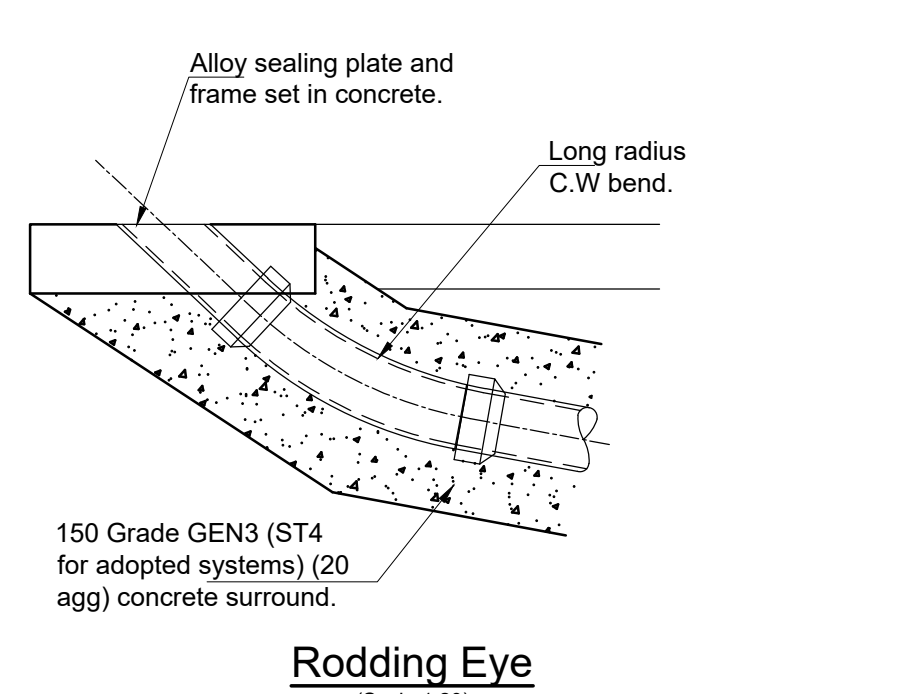
300

150

Min

Min

Typical Connection Detail
for S.V.P.'s
(Scale 1:20)



Gully grate and frame to EN 1241, Grade D400 as Stanton
 or Slaveley watergate A, Type
 GA1-450 with anti-theft pin, or
 similar approved.
 Gully frame bedded
 on 3:1 cement mortar
 Carriageway
 Mortar fillet.
 150mm dia pipe.
 Precast concrete gully
 chamber 375x750 in car
 parks & 450x900 in roads.
 150mm surround of grade
 GEN3 (G14 for adapted
 systems) concrete.
 150mm foundation of grade
 GEN3 (G14 for adapted
 systems) concrete.

1220mm x 685mm man cover ductile iron cover bedded on mortar.

1240

675 max

150

Brickwork or precast masonry units to be corbelled to suit cover.

Galvanized M.S. step irons at 250 or 350mm ctrs throughout.

High strength concrete topping min 20mm thick.

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

Pipe joint with channel to be located inside face of manhole.

GEN3 (ST4 for adopted systems) with sulphate resisting concrete unless agreed otherwise.

See specification use 4.6.6.2 for pipe details.

Mortar haunching to manhole cover and frame.

Class B engineering bricks or precast concrete masonry units 225mm thick.

Arch over pipe.

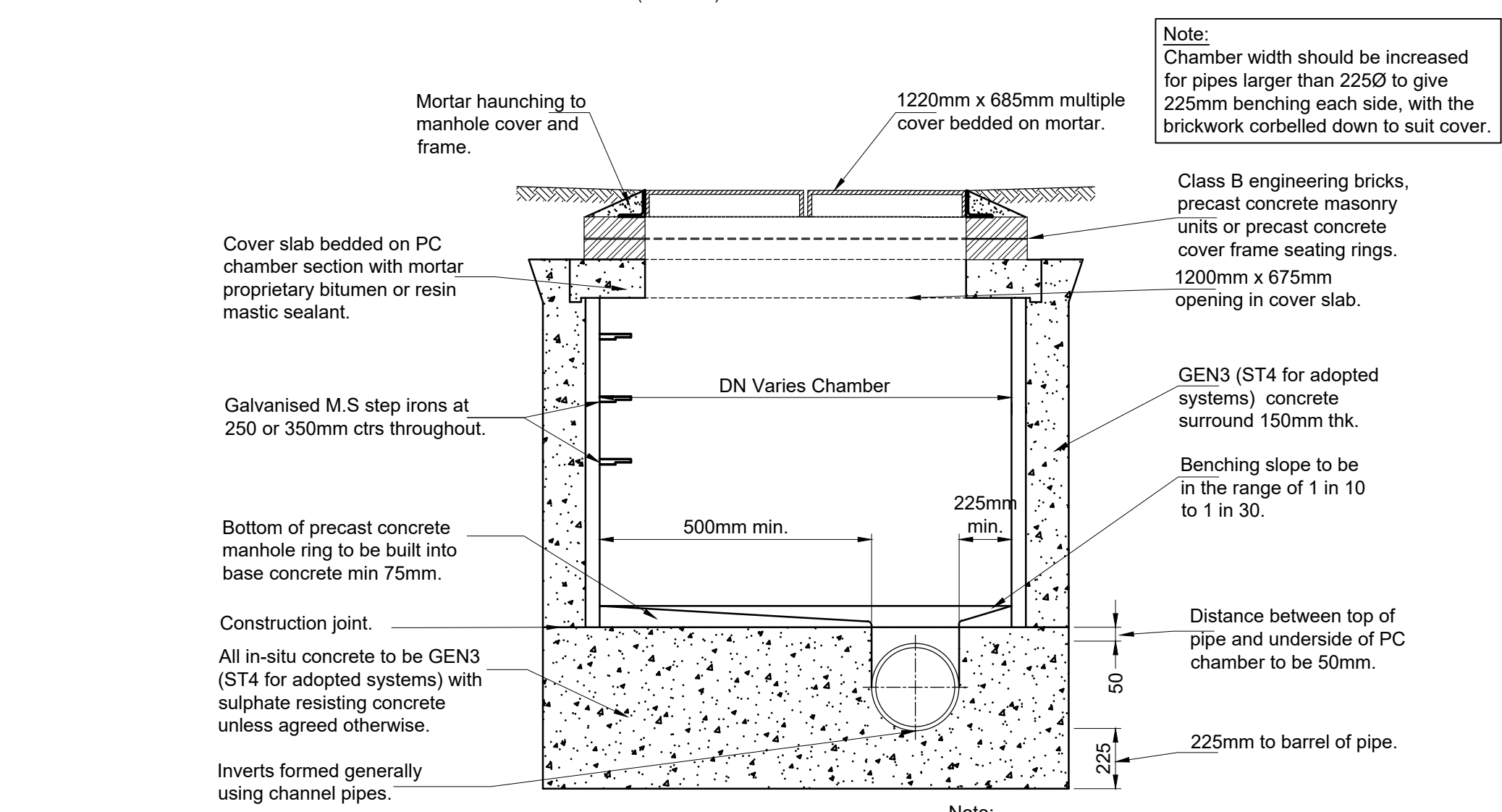
Benching slope to be in the range of 1 in 10 to 1 in 30. 225mm to barrel of pipe.

Inverts formed generally using channel pipes.

Internal dimensions of manhole normally 1240x675, but manhole width should be increased for pipes larger than 225mm to give 225mm benching each side, with the brickwork/masonry units corbelled down to suit cover.

See spec clause 9 rock p.

Typical Manhole Detail - Type D (non-preferred)
Depth from ground level to soffit of pipe less than 1.00m



The diagram illustrates the construction of a manhole. The cross-section (left) shows a concrete chamber with a cover slab on top, a base concrete ring, and invert pipes at the bottom. The plan view (right) shows the circular chamber with a diameter labeled 'DN varies Chamber'. Key dimensions and materials are specified in the annotations.

Annotations:

- Mortar haunching to manhole cover and frame.
- 750mm x 750mm minimum clear opening. Cover frame bedded on mortar.
- Class B engineering bricks, precast concrete masonry units or precast concrete cover frame sealing rings. 750mm x 750mm opening in cover slab.
- Cover slab bedded on PC chamber section with mortar, proprietary bitumen or resin mastic sealant.
- High strength concrete topping to be brought up to a dense, smooth face, neatly shaped and finished to all branch connections (min thickness 20mm).
- DN varies Chamber
- GEN3 (ST4 for adopted systems) concrete surround 150mm thick.
- Benching slope to be in the range of 1 in 10 to 1 in 30.
- Distance between top of pipe and underside of PC chamber to be 50mm.
- 725mm to barrel of pipe.
- Bottom of precast concrete manhole ring to be built into base concrete min 75mm.
- Construction joint.
- All in-situ concrete to be GEN3 (ST4 for adopted systems) with sulphate resisting concrete unless agreed otherwise.
- Inverts formed generally using channel pipes.
- 50
- 225

Temporary Works Note

Contractor to review temporary cover to attenuation tank during ground works operations. Consider installation of tank to be sequenced following completion of general groundworks to avoid potential temp loading damage to tank.

Backfill to be Type 1 or 6F2 to formation level compacted in min 150mm layers in accordance with BKP earthwork spec

Proffordrolled natural ground to achieve min CBR = 5% as per tank specialist

Attenuation Tank Backfill Detail (Temporary)
(Scale 1:20)

Ground bearing ground floor slab

150mm type 1

Backfill to be Type 1 or 6F2 to formation level compacted in min 150mm layers in accordance with BKP earthwork spec

Proffordrolled natural ground to achieve min CBR = 5% as per tank specialist

Attenuation Tank Backfill Detail (Permanent)
(Scale 1:20)

Depth min to specialist details

Cover Level 139.940m

500 deep attenuation tank - see specialist details

Invert Level 139.440m

50mm sand or shingle in accordance with specialist details

Temporary Formation Level Approx 140.500m FFL

200

Cover Level 139.940m

500 deep attenuation tank - see specialist details

Invert Level 139.440m

50mm sand or shingle in accordance with specialist details

ion Tank Backfill Detail
(Permanent)
(Scale 1:20)

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DRAWING No:

14834-BKP-V1-XX-DR-C-510