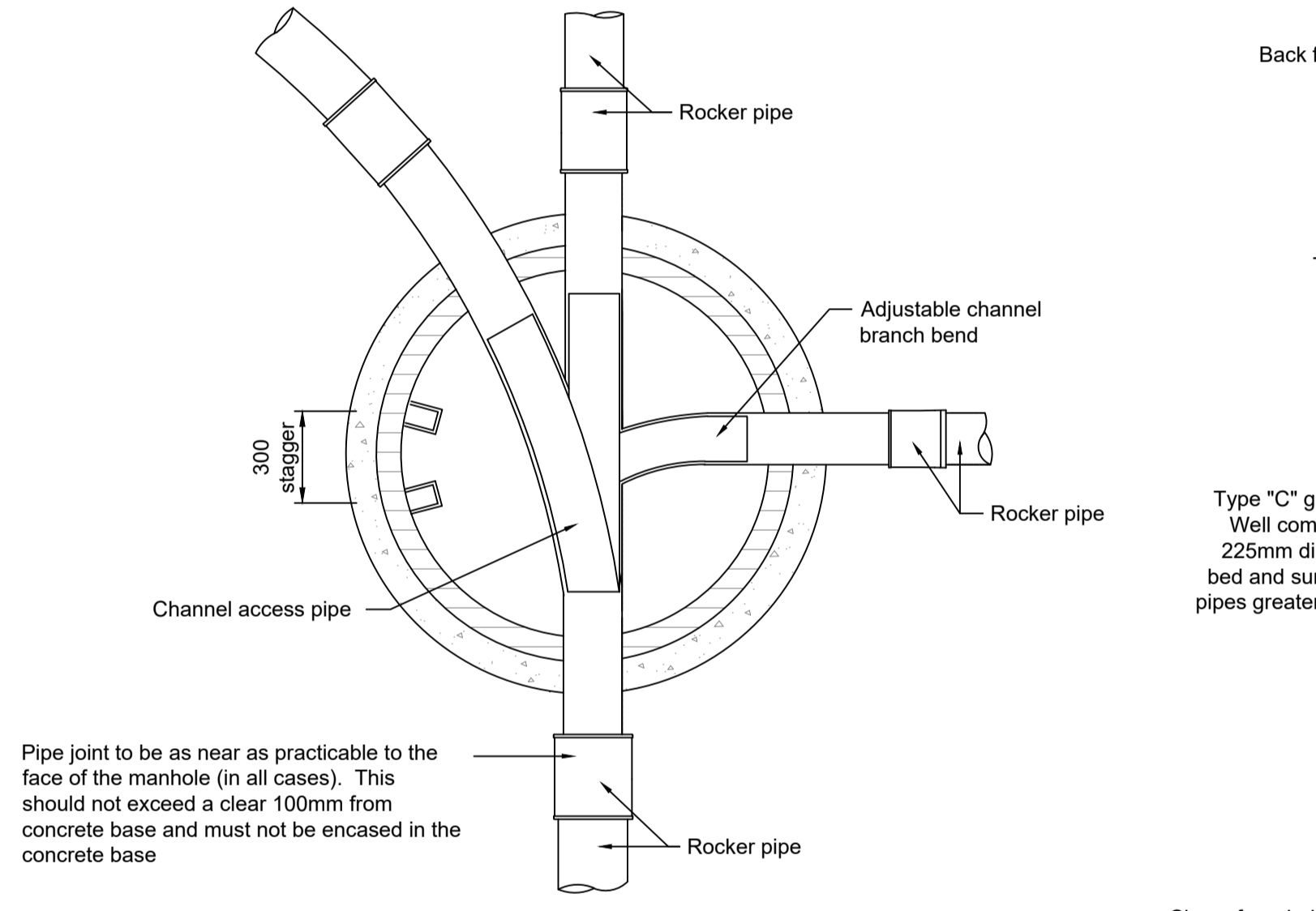
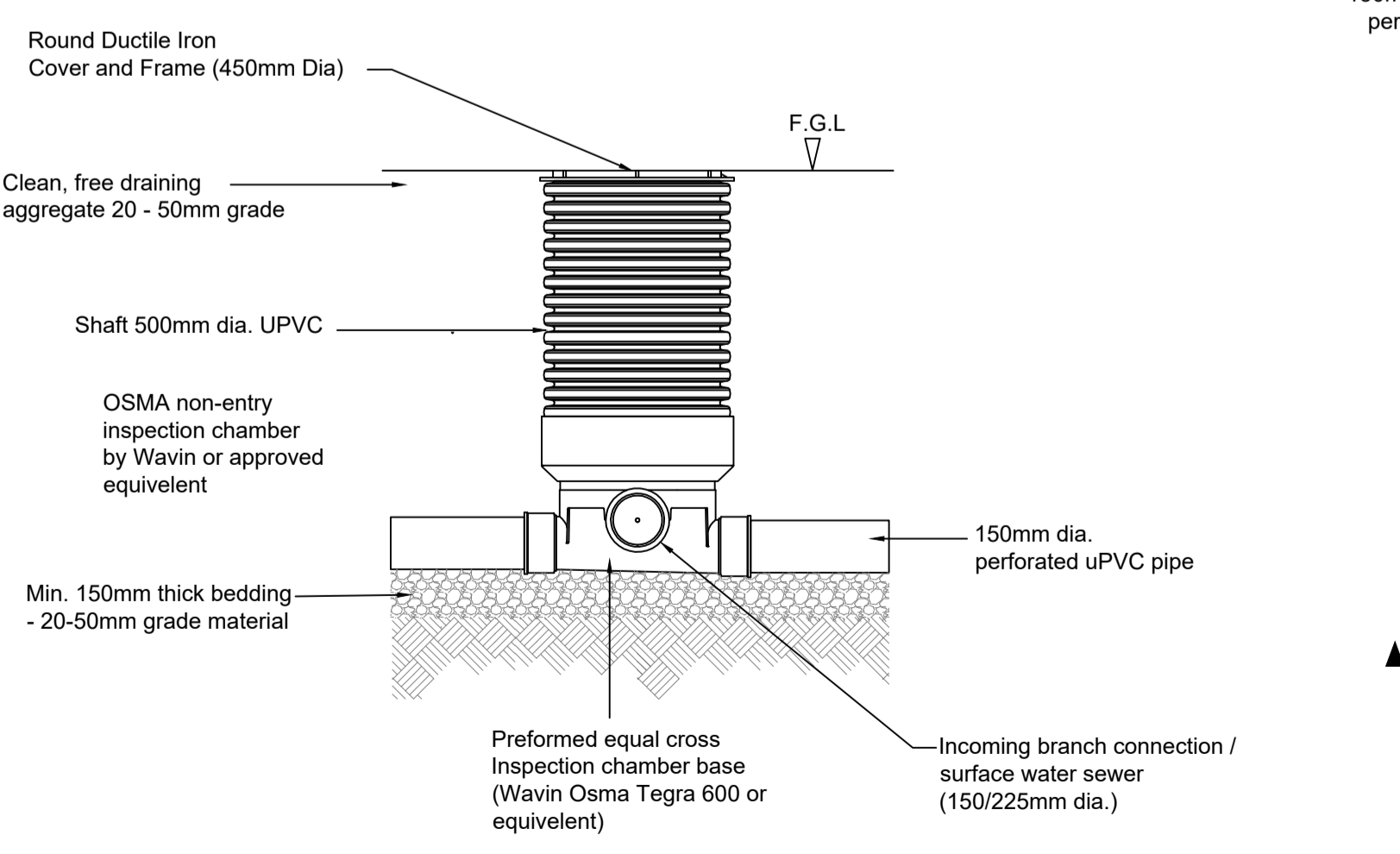


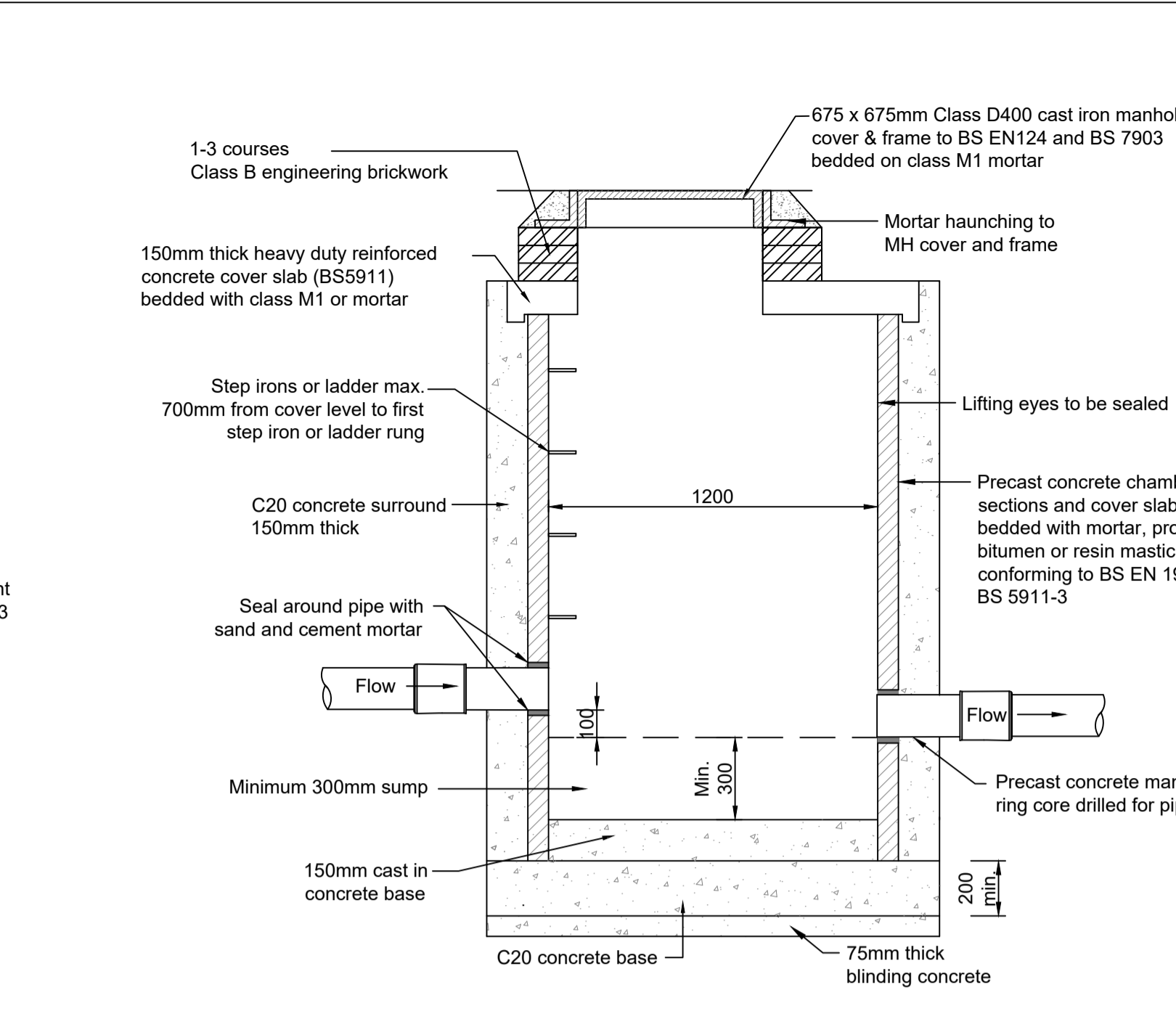
SECTION THROUGH TYPICAL MANHOLE TYPE B (Traditional Base)
 Max depth from cover level to soffit of pipe 3.0m
 (Sewers For Scotland 4th Edition)
 SCALE 1:20



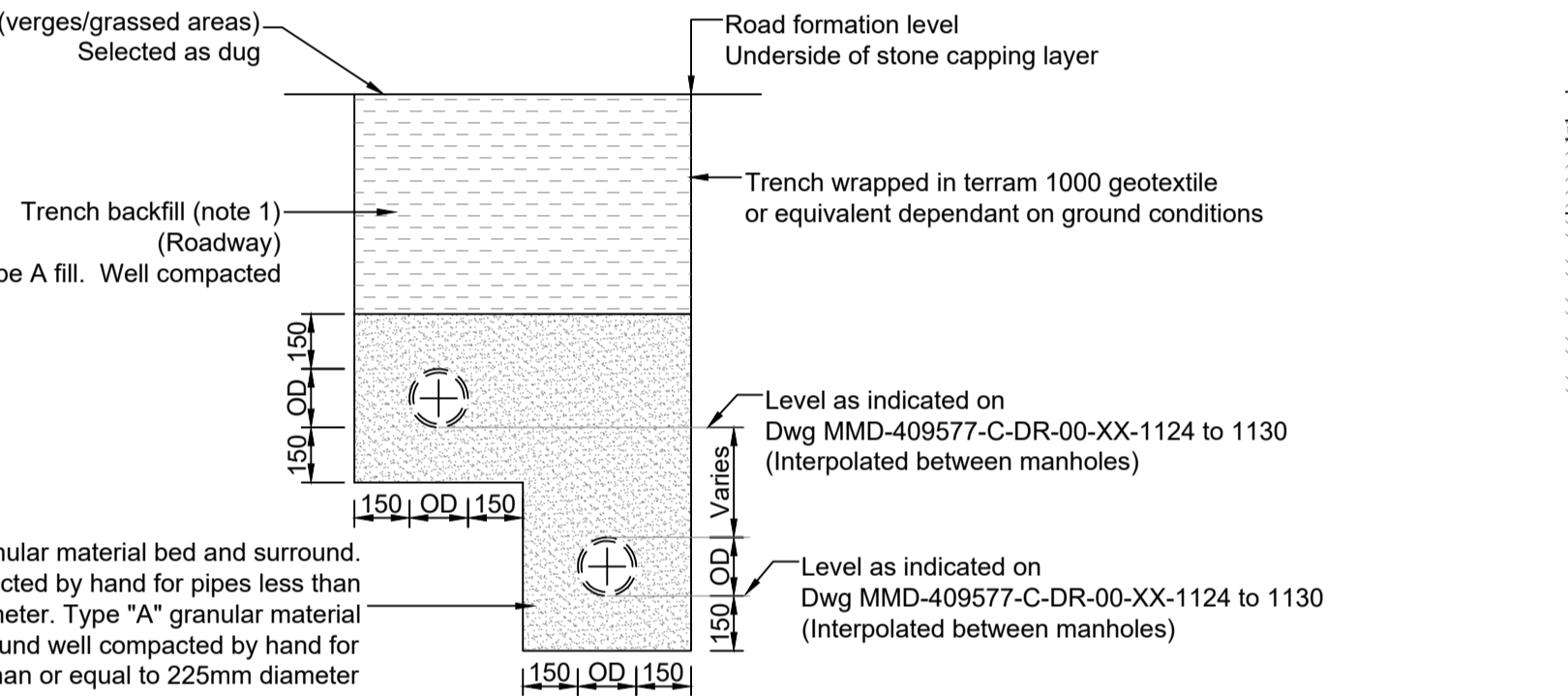
PLAN OF TYPICAL MANHOLE TYPE B (Traditional Base)
 SCALE 1:20



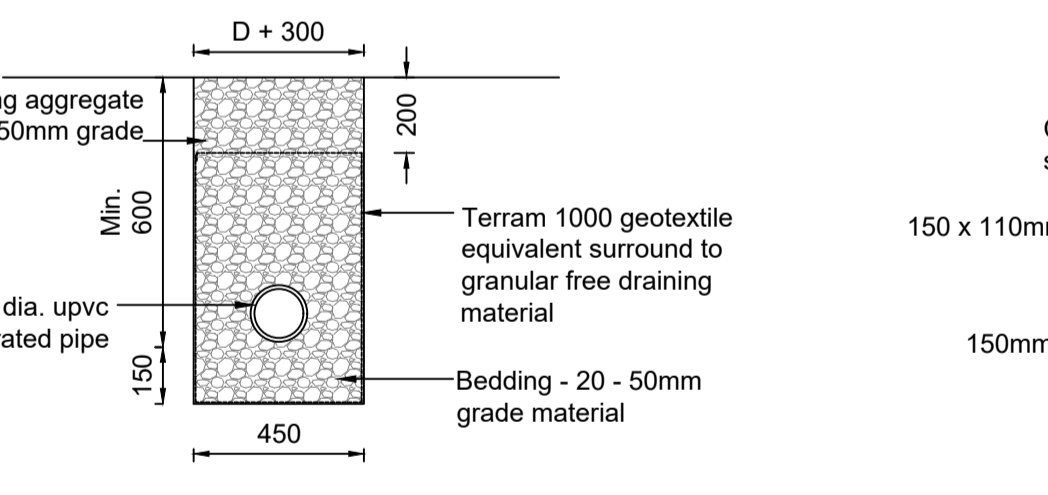
FILTER DRAIN INSPECTION CHAMBER DETAIL
 SCALE 1:20



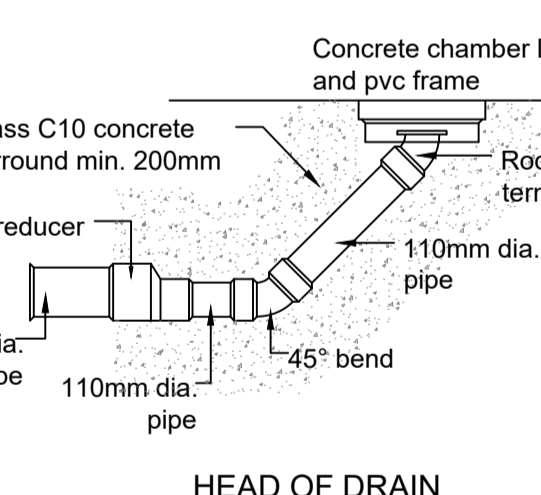
SECTION THROUGH TYPICAL CATCHPIT MANHOLE
 SCALE 1:20



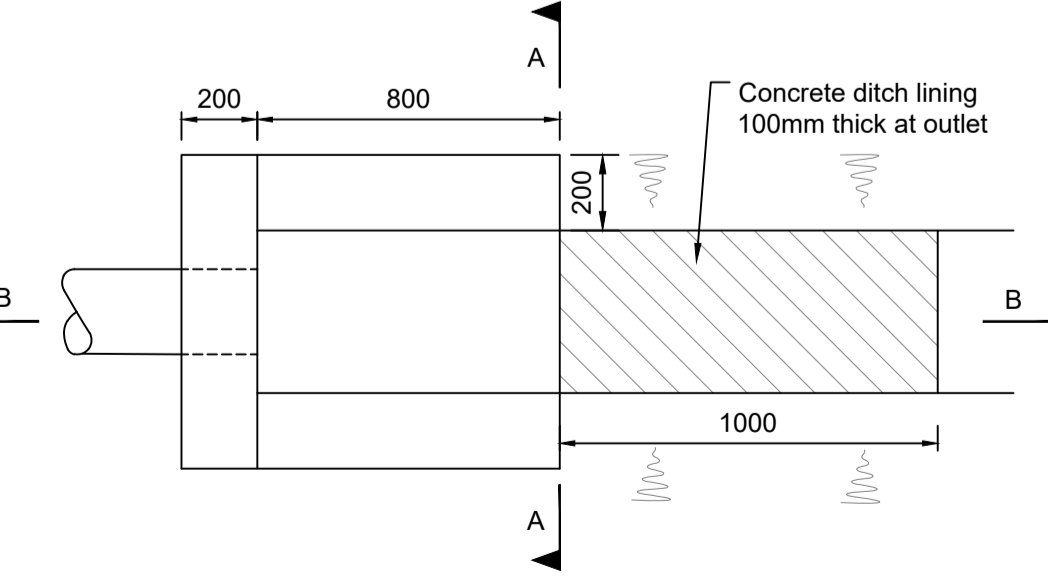
CLASS E2 BEDDING FOR uPVC PIPES TWIN TRACK SEWER PIPEWORK
 SCALE 1:20



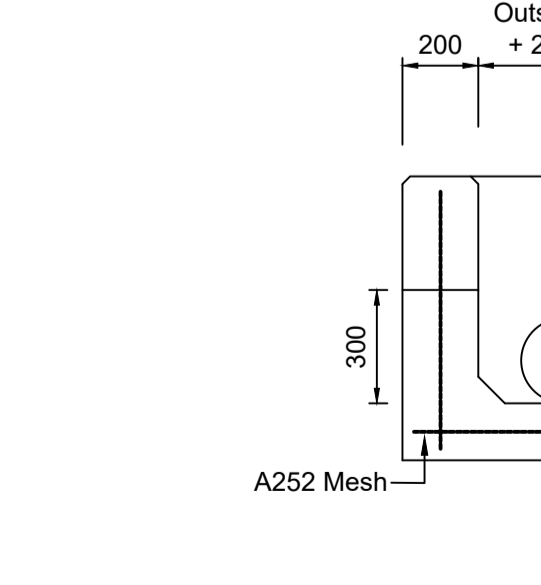
FILTER DRAIN DETAIL
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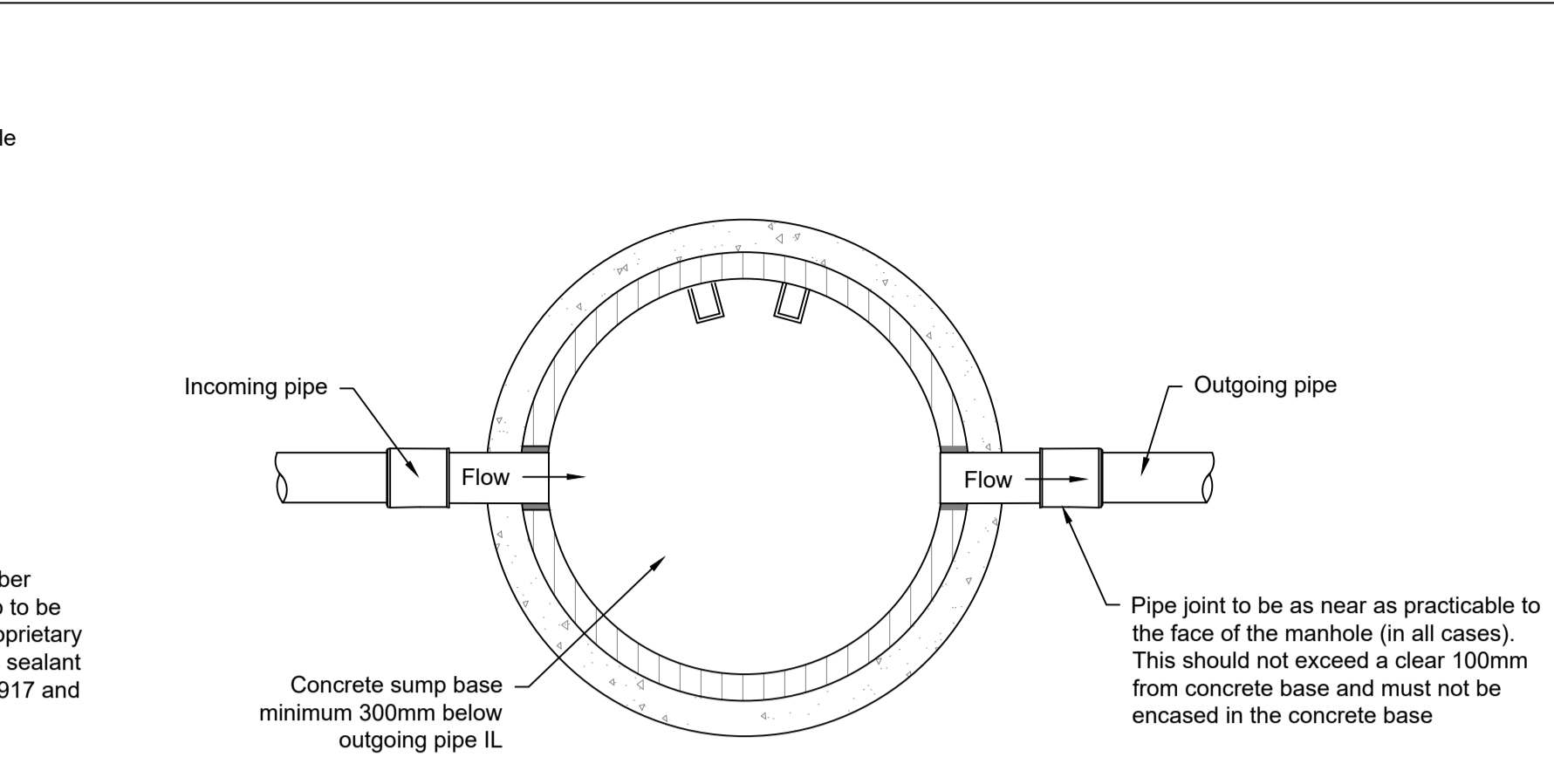
HEAD OF DRAIN RODDING POINT
 SCALE 1:20



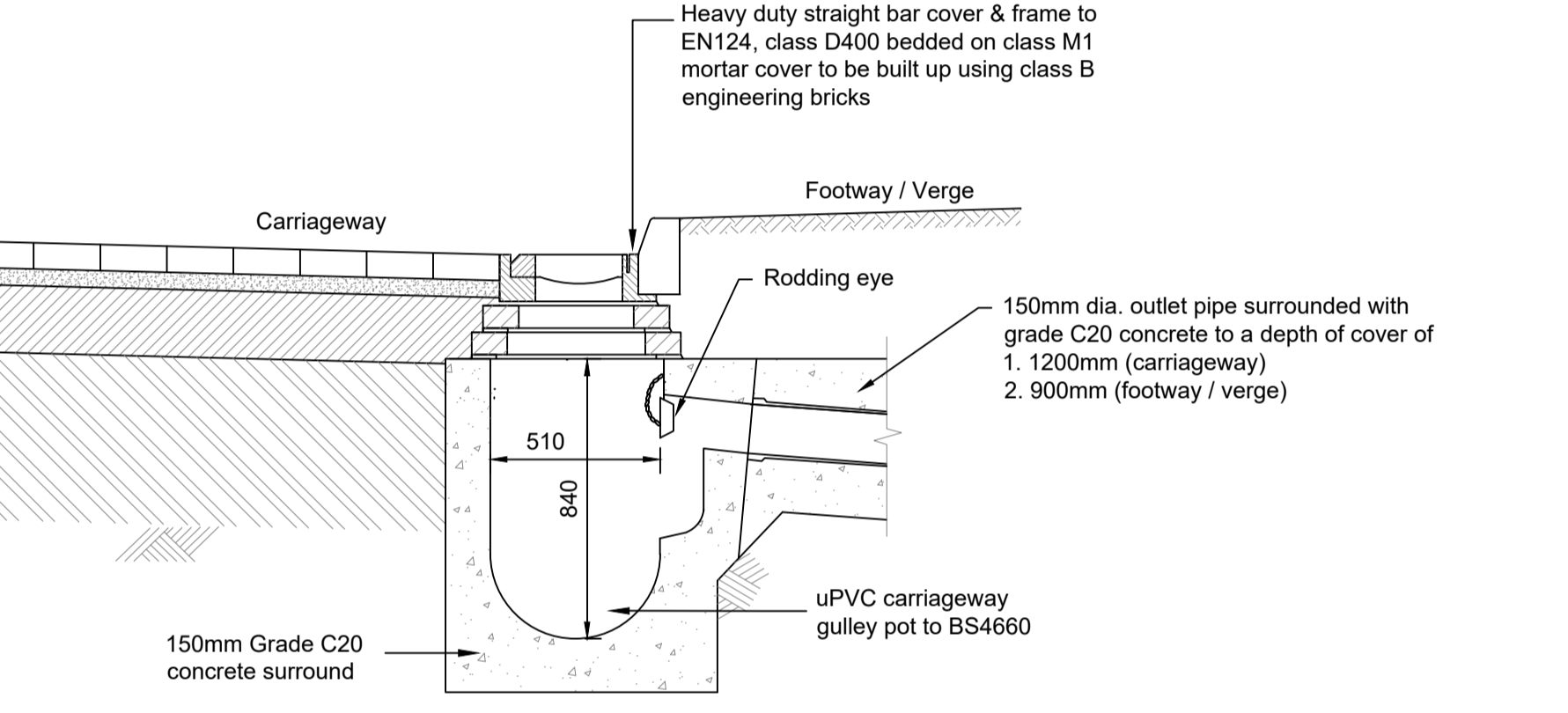
CONCRETE HEADWALL DETAILS PLAN
 SCALE 1:20



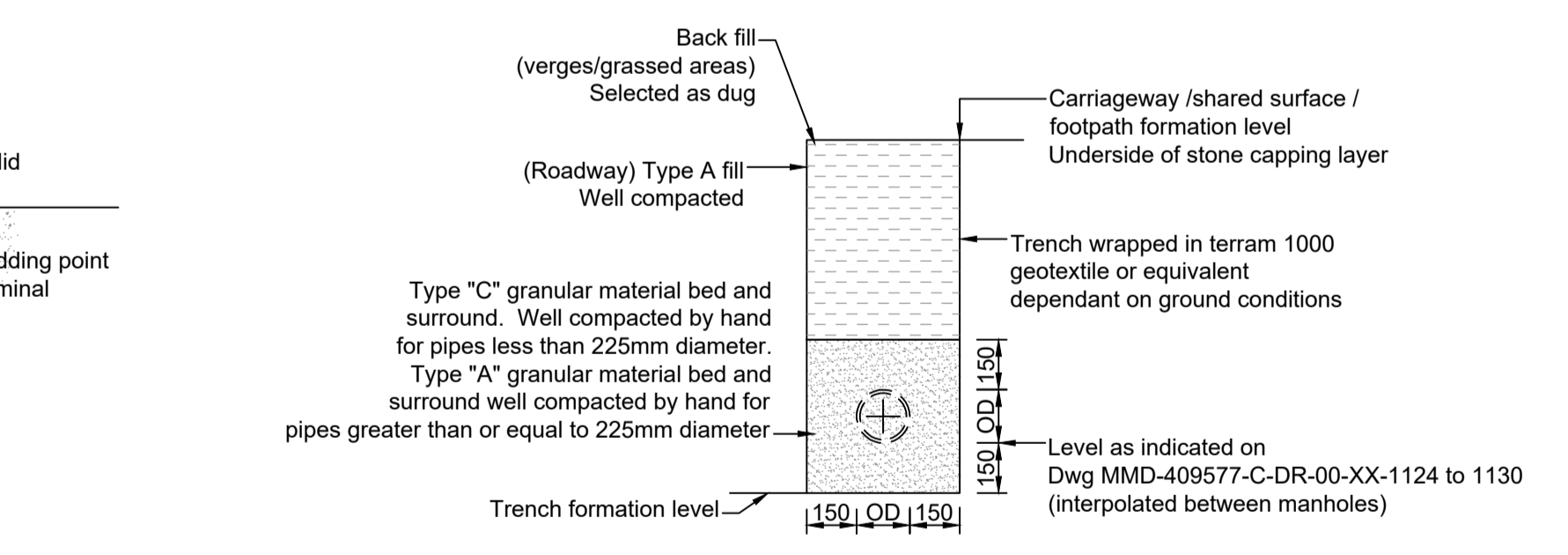
CONCRETE HEADWALL DETAILS SECTION A-A
 SCALE 1:20



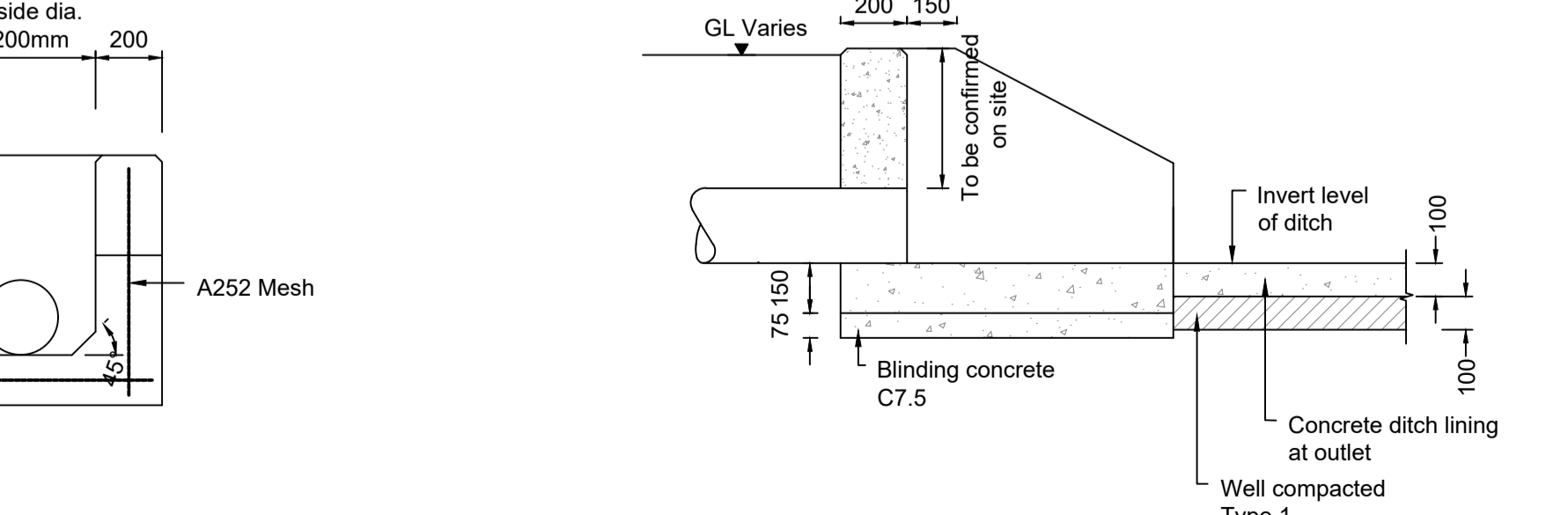
PLAN OF TYPICAL CATCHPIT MANHOLE
 SCALE 1:20



TYPICAL GULLY DETAIL at SHARED SURFACE
 SCALE 1:20



CLASS E BEDDING FOR uPVC PIPES SINGLE TRACK SEWER PIPEWORK
 SCALE 1:20



CONCRETE HEADWALL DETAILS SECTION B-B
 SCALE 1:20

Notes
 All dimensions are in millimetres unless noted otherwise.

SINGLE TRACK & TWIN TRACK PIPEWORK
 1.a) Backfilling of trenches shall be undertaken immediately the specified operations preceding it have been completed.
 b) Where excavated material is deemed unsuitable: either in its normal state or is allowed to become unsuitable after excavation it shall be replaced by Type B fill.
 c) No backfill material shall be placed in trenches containing water

PIPE BEDDING MATERIAL
 Granular bedding TYPE A for pipes shall consist of aggregates from natural sources complying with BS882. Grading shall comply with BS882 Table 4 as follows:-

Material X1:
 20mm nominal size graded aggregate, for use with pipes up to 525mm nominal diameter.
 90 - 100% passing 20mm sieve
 30 - 60% passing 10mm sieve
 0 - 10% passing 5mm sieve

Material Y1:
 20mm nominal size, single size aggregate, for use with pipes up to 525mm nominal diameter.
 85 - 100% passing 20mm sieve
 0 - 25% passing 10mm sieve
 0 - 5% passing 5mm sieve

Note: The material to be used for bedding and surround for concrete pipes shall not contain more than 0.3% sulphate expressed as sulphur trioxide.

Selected fill TYPE B shall be uniform readily compacted material free from vegetable matter, building rubbish, frozen soil, material susceptible to spontaneous combustion and clay lumps and stones retained on 75mm sieve and 37.5mm sieve respectively.

Granular bedding TYPE C shall be as for TYPE A but to pass a 10mm sieve.

Sand for bedding pipes shall comply with the provisions of BS882 Table 5. Grading Zone C

TYPE E material for backfilling field or French drains shall be hard clean crushed rock or gravel having a grading within the following limits:-

100% passing 63mm sieve
 85 - 100% passing 37.5mm sieve
 0 - 20% passing 20mm sieve
 0 - 5% passing 10mm sieve

NOTES FOR HEADWALL:

- Concrete to be grade C30
- 20x20 chamfers to be formed on all exposed arrises
- A252 fabric to be provided in walls and base. Minimum 40mm cover to fabric
- 75mm thick C7.5 blinding concrete to be placed under base slabs

Key to symbols

Reference drawings

P1	01:21	EJW	Preliminary Issue	JM	KB
Rev	Date	Drawn	Description	Ch'kd	App'd

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Title
 Proposed Housing at Staneyhill, Lerwick
 Work Stream 1 - Civils Infrastructure

Roads and Services Construction Details (sheet 3 of 3)

Designed	A Stout	AS	Eng check	J Moncrieff	JM
Drawn	E Wishart	EJW	Coordination	J Moncrieff	JM
Dwg check	A Stout	AS	Approved	K Burnett	KB

Scale at A1	Status	Rev	Security
1:20	PRE	P1	STD

Drawing Number
 MMD-409577-C-DR-00-XX-1304