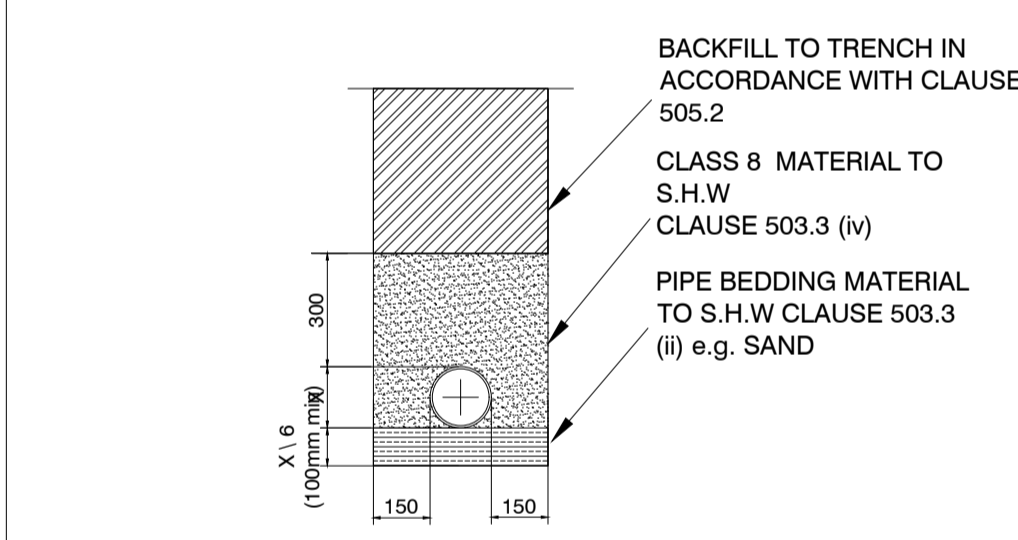
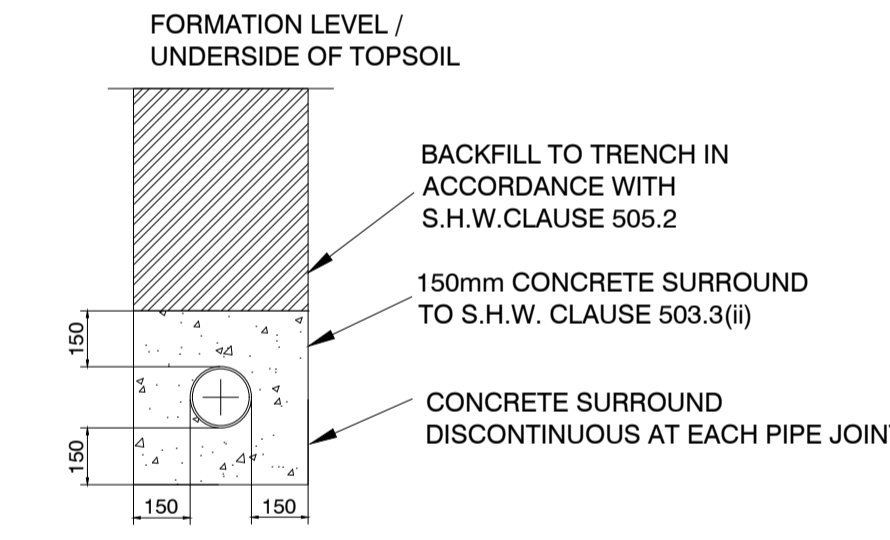


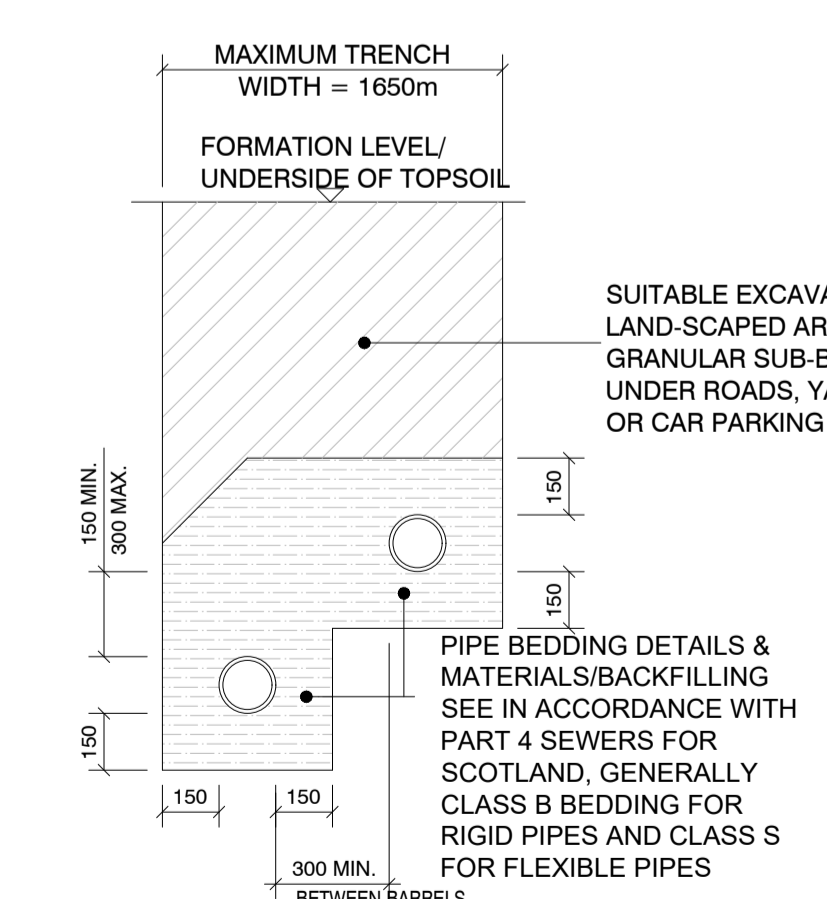
**DETAIL 1  
PC CONCRETE MANHOLE TYPE B  
DEPTH UP TO 3.0m (1:20)**



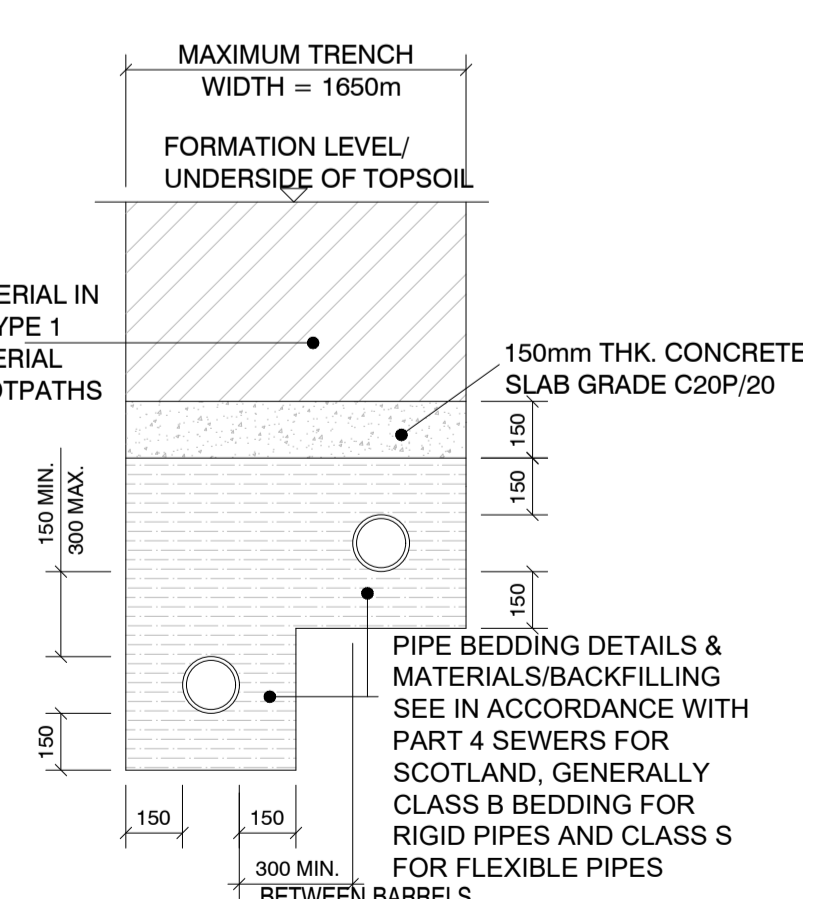
**DETAIL 3  
TRENCH / BEDDING DETAIL  
TYPE N, HCD, DWG F1 (1:20)**



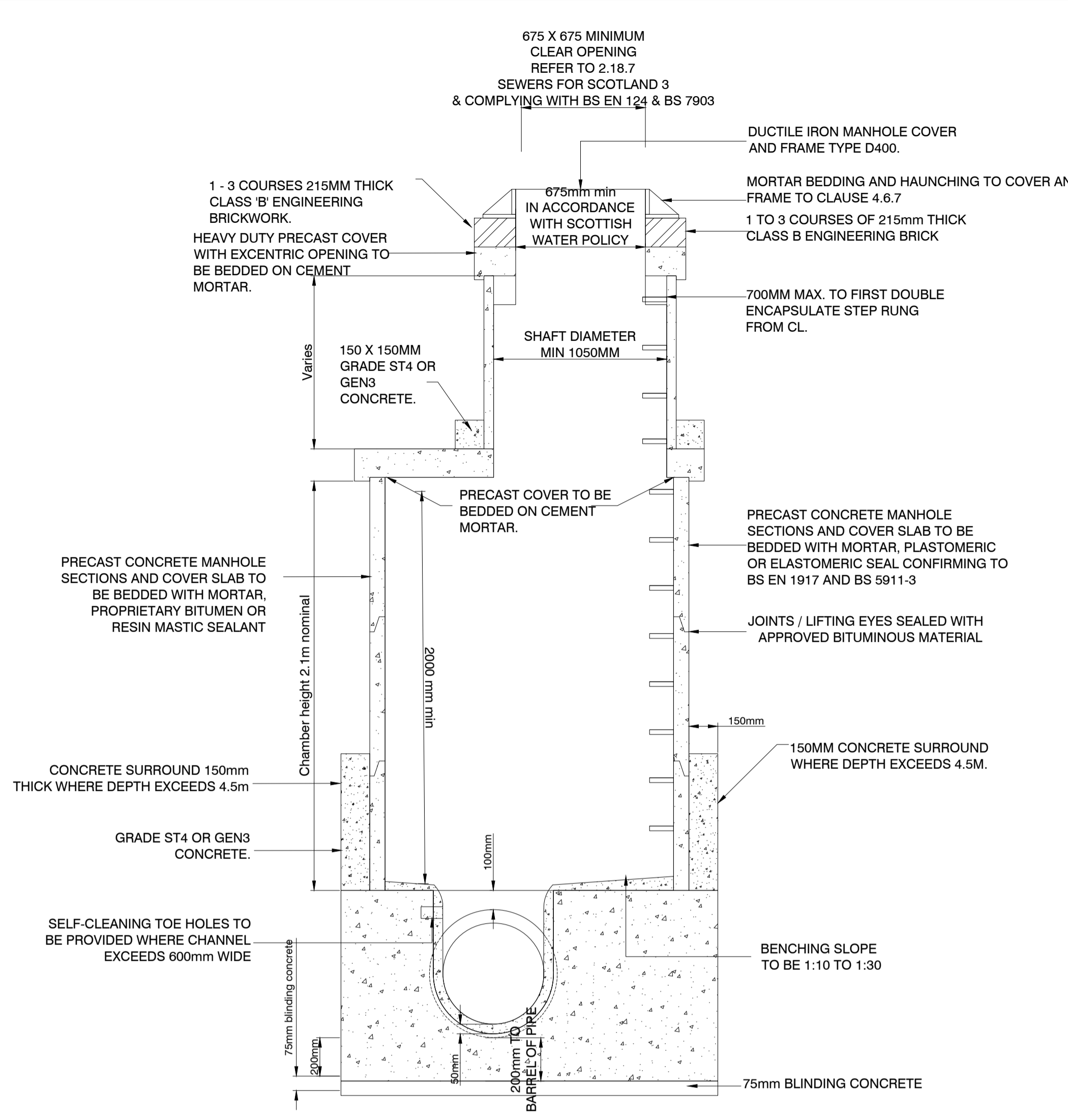
**DETAIL 4  
CONCRETE PROTECTION CLAY / CONCRETE PIPES &  
ALTERNATIVE FOR UPVC (1:20)  
(TYPE Z, HCD DWG F1)**



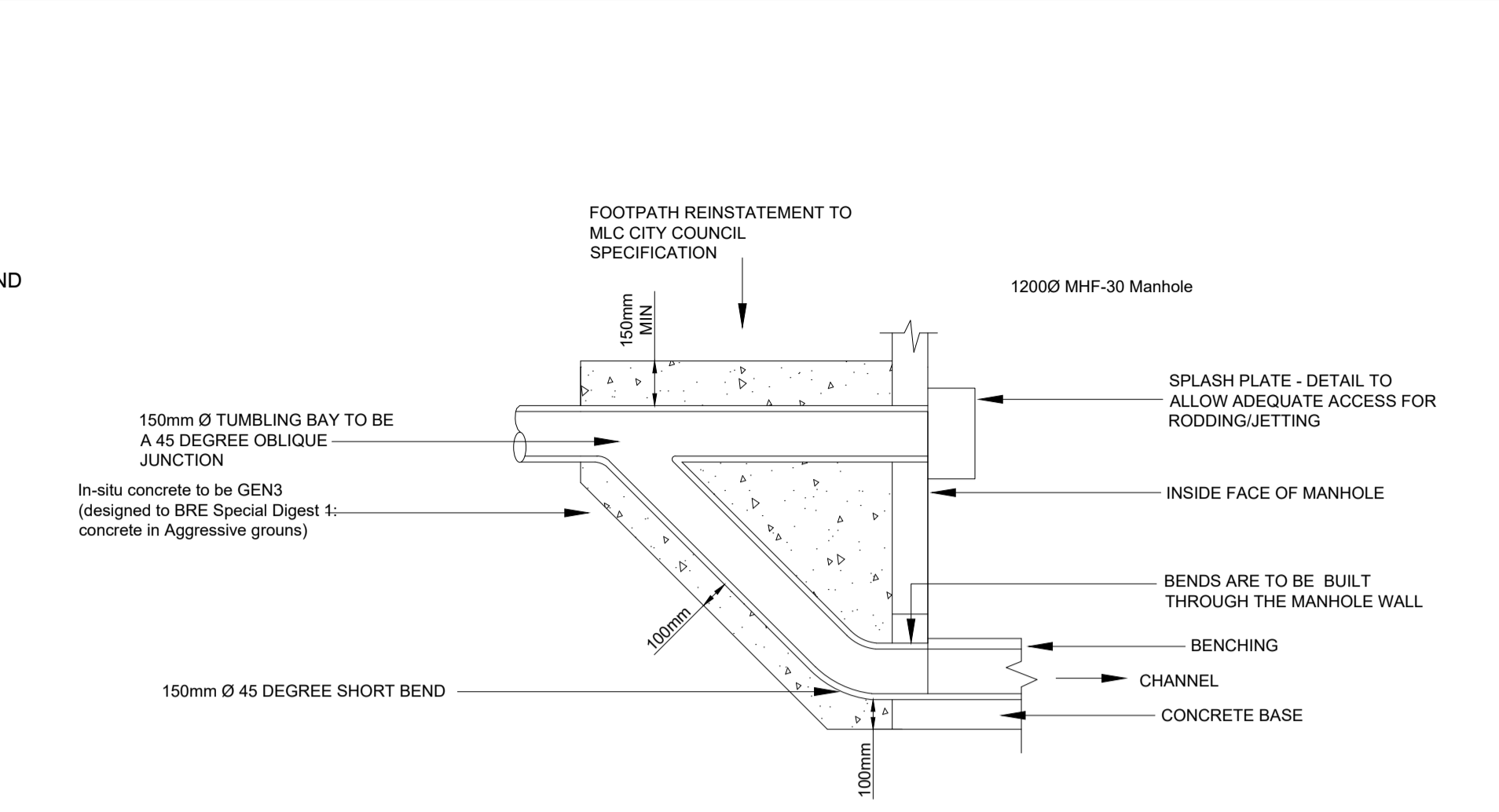
**DETAIL 6  
BEDDING DETAIL  
FOR PVCu PIPES (1:20)**



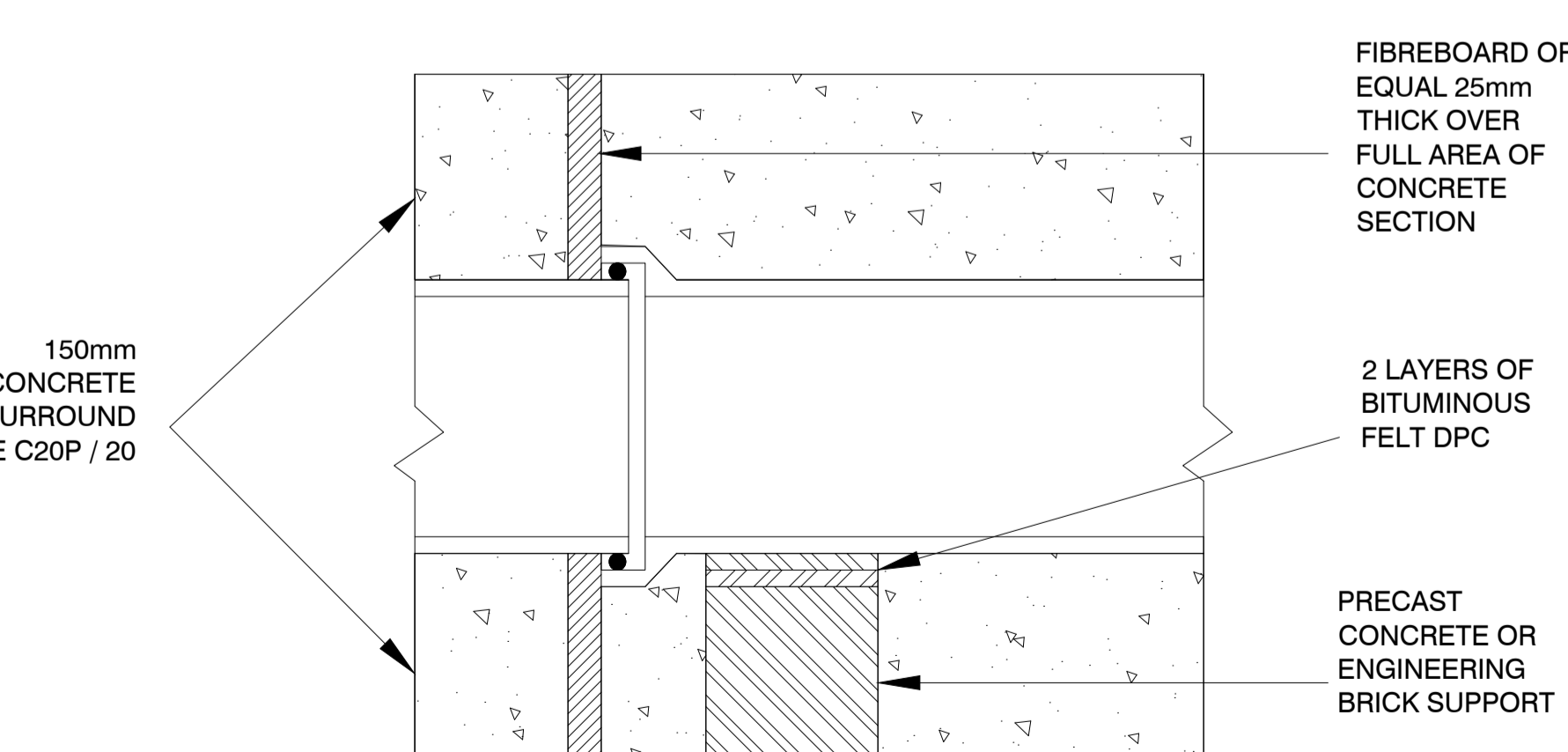
**DETAIL 7  
CONCRETE PROTECTION  
FOR PVCu PIPES (1:20)**



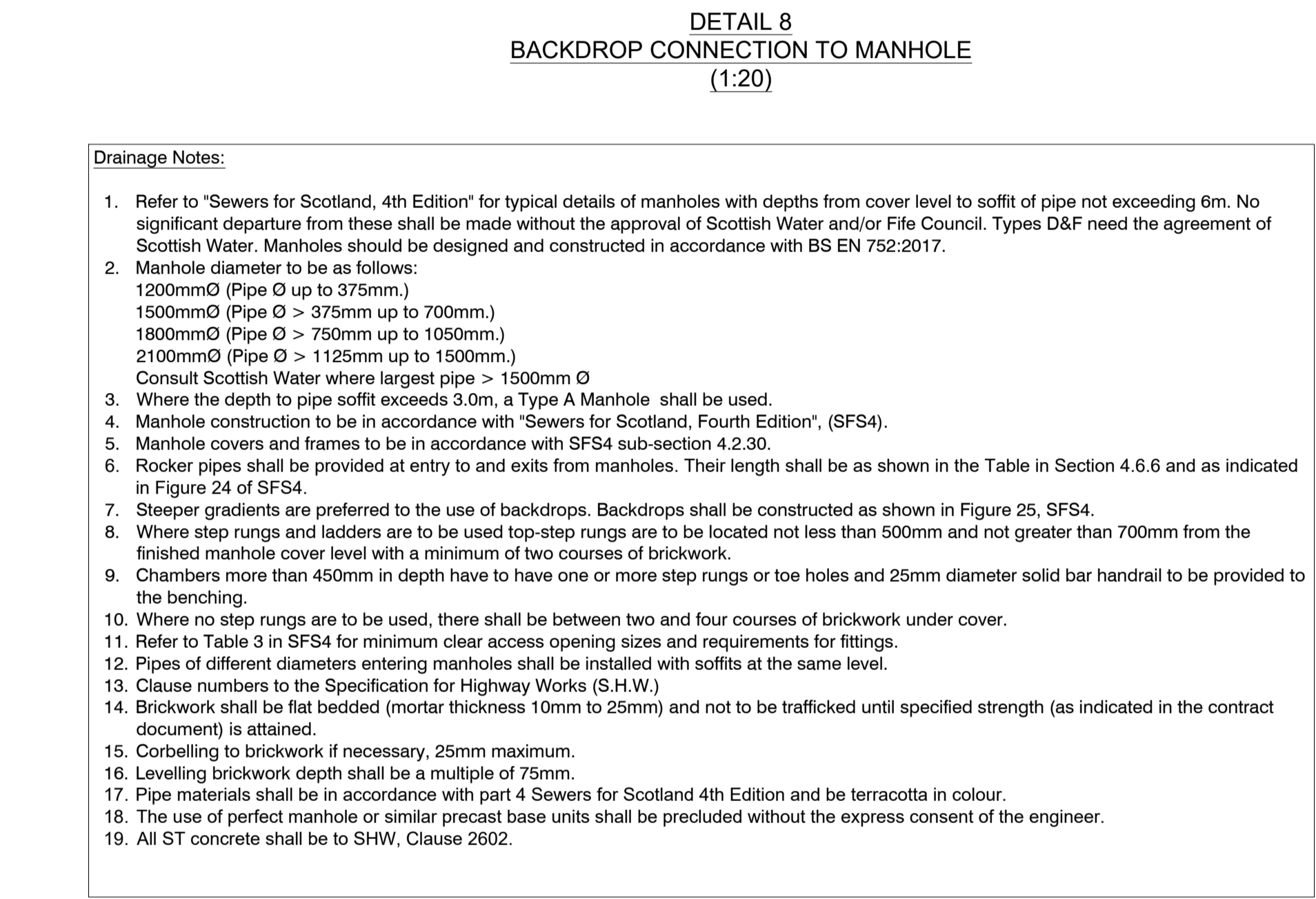
**DETAIL 2  
TYPICAL MANHOLE DETAIL - TYPE A  
DEPTH FROM COVER LEVEL TO PIPE SOFFIT 3-6m 1 in 20**



**DETAIL 8  
BACKDROP CONNECTION TO MANHOLE  
(1:20)**



**DETAIL 8  
EXPANSION JOINT IN CONCRETE SUPPORT (NTS)**



**DETAIL 9  
TRAPPED ROAD GULLY DETAIL (1:20)**

- Drainage Notes:**
- Refer to "Sewers for Scotland, 4th Edition" for typical details of manholes with depths from cover level to soffit of pipe not exceeding 6m. No significant departure from these shall be made without the approval of Scottish Water and/or Fife Council. Types D&F need the agreement of Scottish Water. Manholes should be designed and constructed in accordance with BS EN 752:2017.
  - Manhole diameter to be as follows:  
1200mmØ (Pipe Ø up to 375mm.)  
1500mmØ (Pipe Ø > 375mm up to 700mm.)  
1800mmØ (Pipe Ø > 700mm up to 1050mm.)  
2100mmØ (Pipe Ø > 1125mm up to 1500mm.)  
Consult Scottish Water where largest pipe > 1500mm Ø
  - Where the depth to pipe soffit exceeds 3.0m, a Type A Manhole shall be used.
  - Manhole construction to be in accordance with "Sewers for Scotland, Fourth Edition", (SFS4).
  - Manhole covers and frames to be in accordance with SFS4 sub-section 4.2.30.
  - Rocker pipes shall be provided at entry to and exits from manholes. Their length shall be as shown in the Table in Section 4.6.6 and as indicated in Figure 24 of SFS4.
  - Steeper gradients are preferred to the use of backdrops. Backdrops shall be constructed as shown in Figure 25, SFS4.
  - Where step rungs and ladders are to be used top-step rungs are to be located not less than 500mm and not greater than 700mm from the finished manhole cover level with a minimum of two courses of brickwork.
  - Chambers more than 450mm in depth have to have one or more step rungs or toe holes and 25mm diameter solid bar handrail to be provided to the benching.
  - Where no step rungs are to be used, there shall be between two and four courses of brickwork under cover.
  - Refer to Table 3 in SFS4 for minimum clear access opening sizes and requirements for fittings.
  - Pipes of different diameters entering manholes shall be installed with soffits at the same level.
  - Clause numbers to the Specification for Highway Works (S.H.W.)
  - Brickwork shall be flat bedded (mortar thickness 10mm to 25mm) and not to be trafficked until specified strength (as indicated in the contract document) is attained.
  - Corbelling to brickwork if necessary, 25mm maximum.
  - Levelling brickwork depth shall be a multiple of 75mm.
  - Pipe materials shall be in accordance with part 4 Sewers for Scotland 4th Edition and be terracotta in colour.
  - The use of perfect manhole or similar precast base units shall be precluded without the express consent of the engineer.
  - All ST concrete shall be to SHW, Clause 2602.

Rev	Date	Description	Initials
P01	18.02.21	RCC Issue	

**Ironside Farrar**  
Environmental Consultants  
111 McDonald Road, EDINBURGH, EH7 4NW  
0131 550 6500 | mail@ironsidefarrar.com  
EDINBURGH | GLASGOW | MANCHESTER

Project Name  
**Roths Mill Residential**

Client  
**Bellway Homes East Scotland**

The  
**Proposed Drainage Construction Details**

N. Point Scale 1:500 Bar Scale 0 12.5 25m

Date 18.02.21 Paper Size A1 Quality Assurance  
SOS 1001/2016  
SGS UKAS Certificate GB0254539  
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Drawn by KZ Checked by NK  
FOR PLANNING

Project No. Class Drawing No. Revision  
**50785-34-001-P01**

**THIS IS THE DRAWING**  
REFERRED TO IN THE APPLICATION

SIGNED Kamila Zaborowska (AGENT)

ON BEHALF OF Bellway Homes East Scotland

DATE 24.02.2021

Note: Please do not scale from this drawing