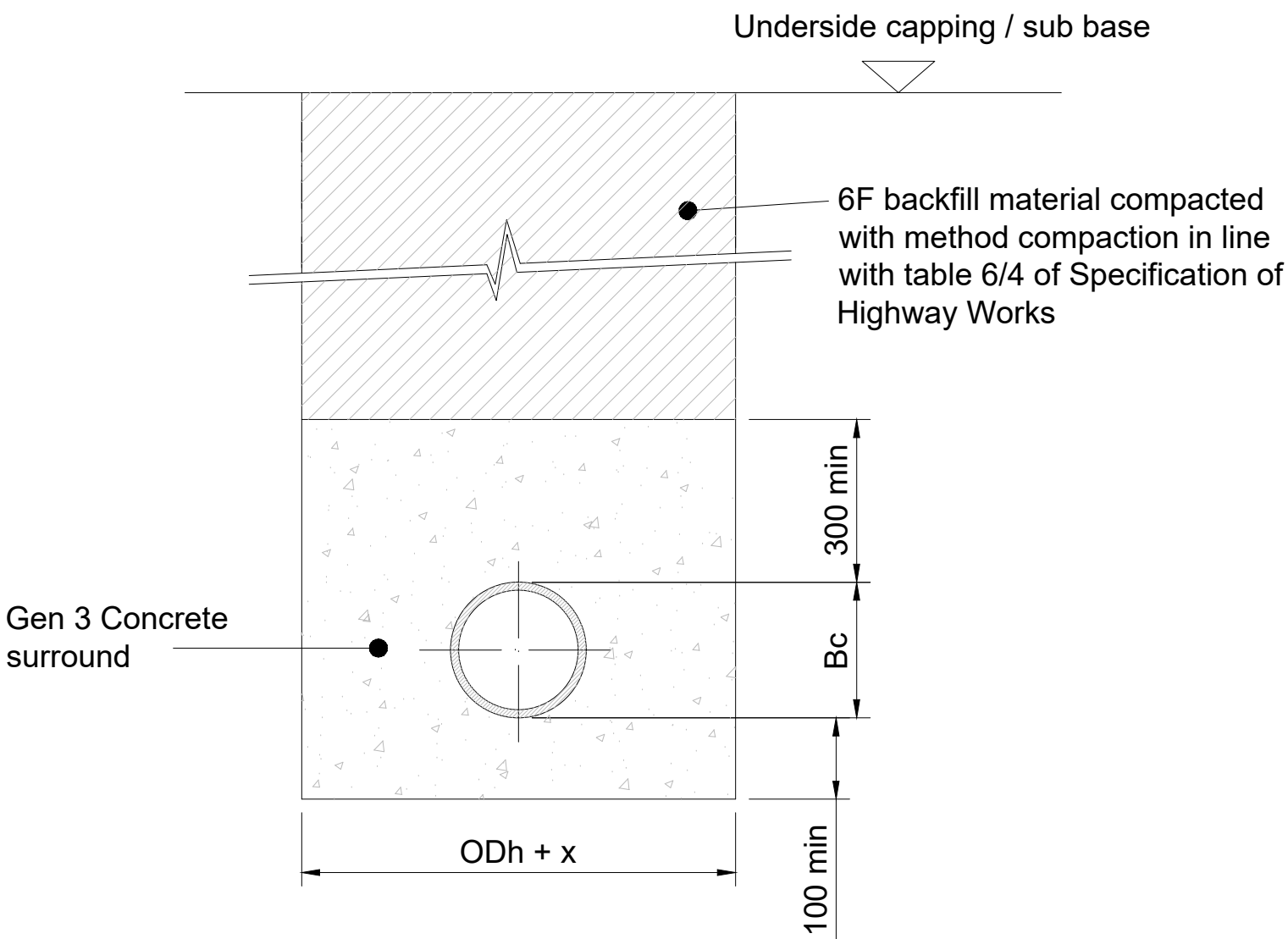
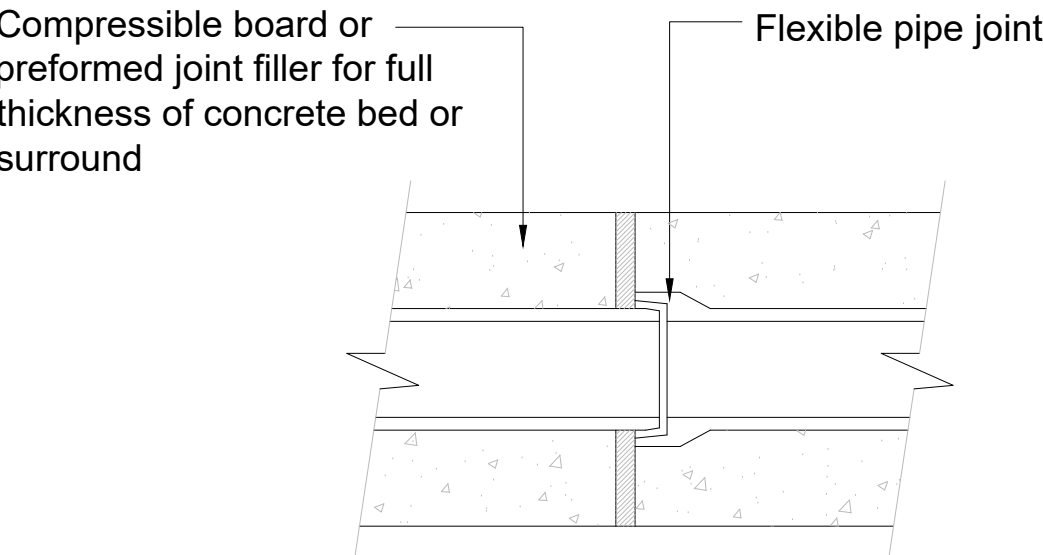


Filename: \\HYD-MAN-SVR-10\Data\Manchester Central Office\STRUCTURES\C-22975\Welcomb St Manchester\01\_WIP\08\_Drawing\C-22975-HYD-XX-DR-C-1101-1105-103\_Drainage and External Pavement Details.dwg



**Class Z Bedding Detail - Cover <0.9m**  
(Excavation and backfill material to be wrapped with Geotextile)

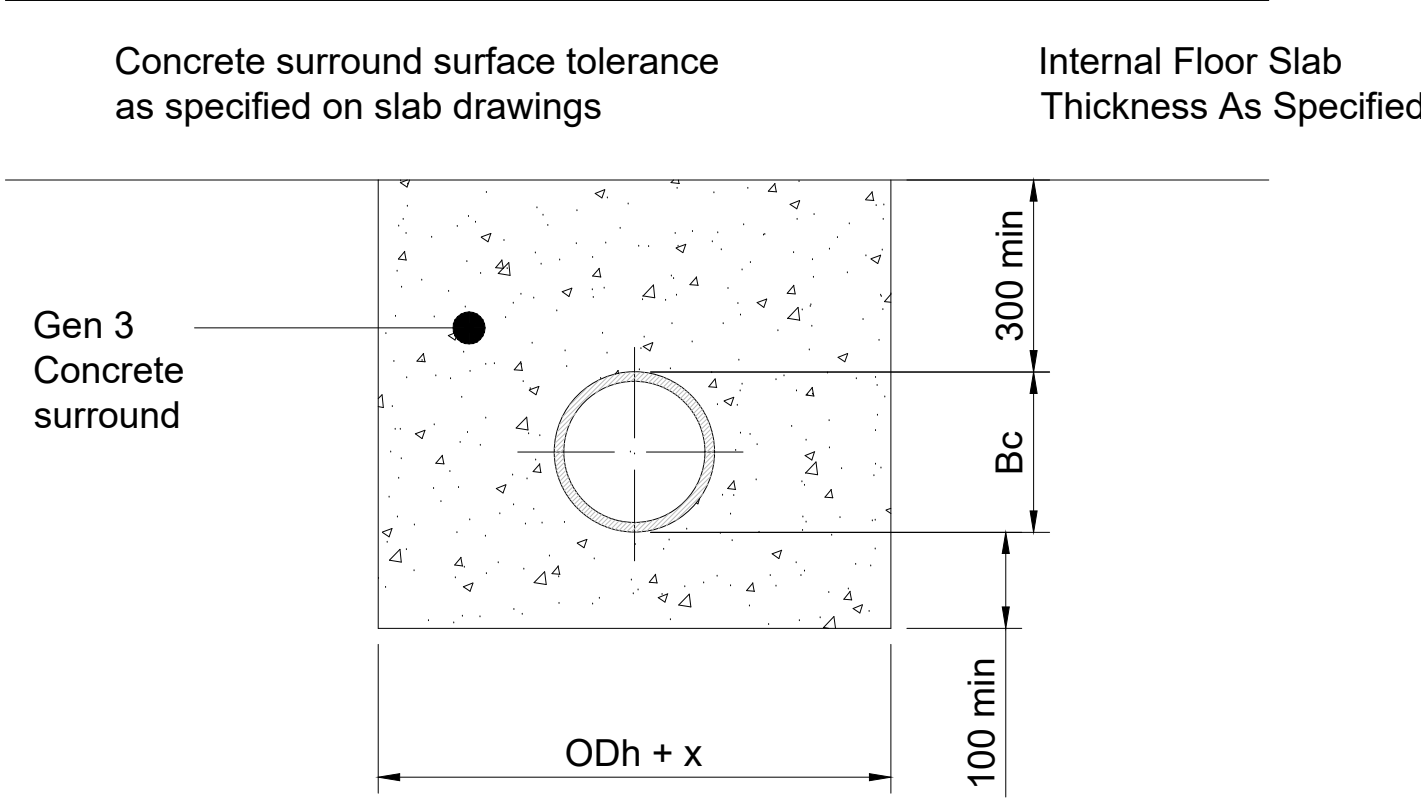


**Joints for Concrete Surround to Pipes**  
(To occur at each pipe joint)

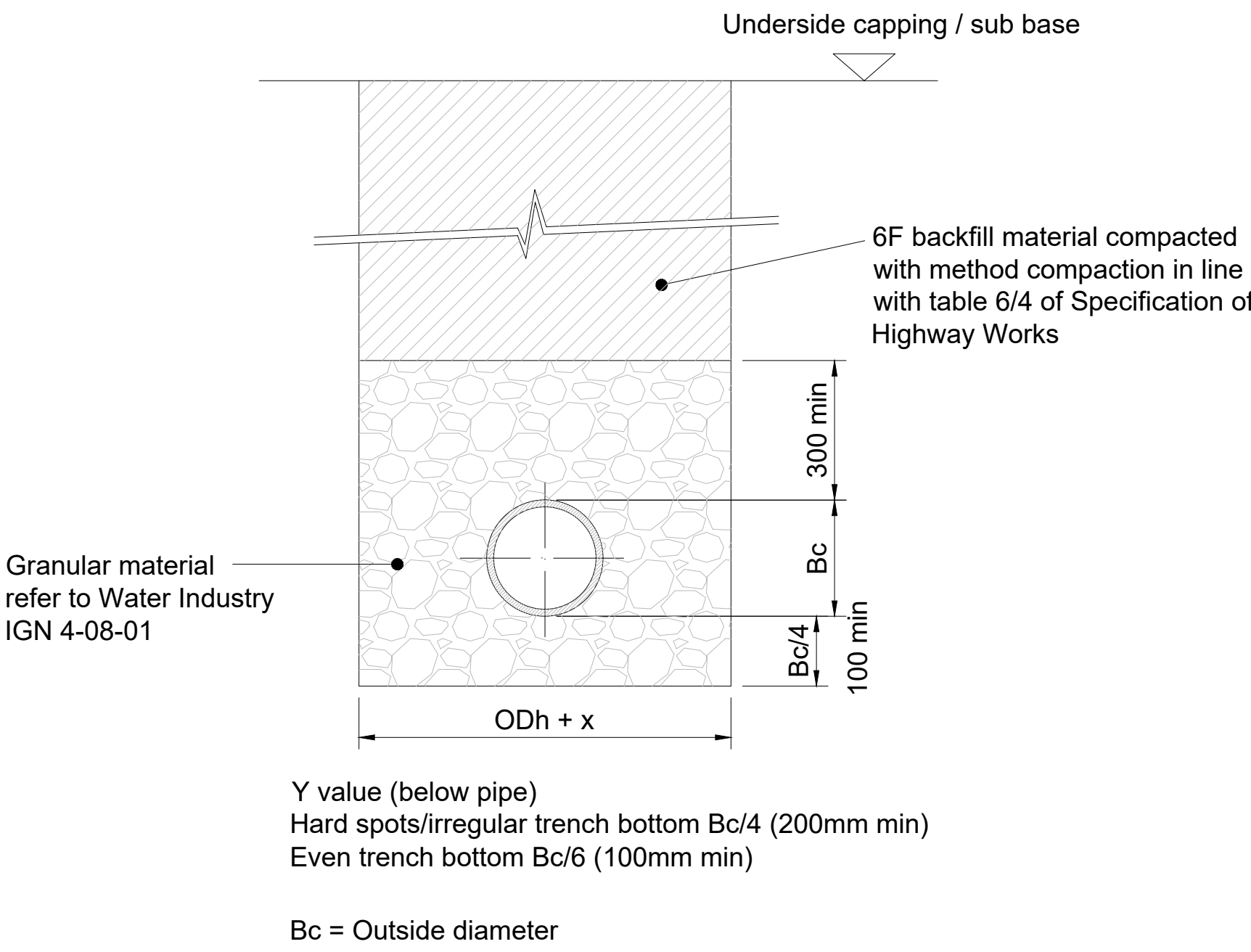
| Pipe Ø (mm) | Joint thickness |
|-------------|-----------------|
| < 450       | 18mm            |
| 450-1200    | 36mm            |
| 1200 >      | 54mm            |

**Compressible Filler Table**

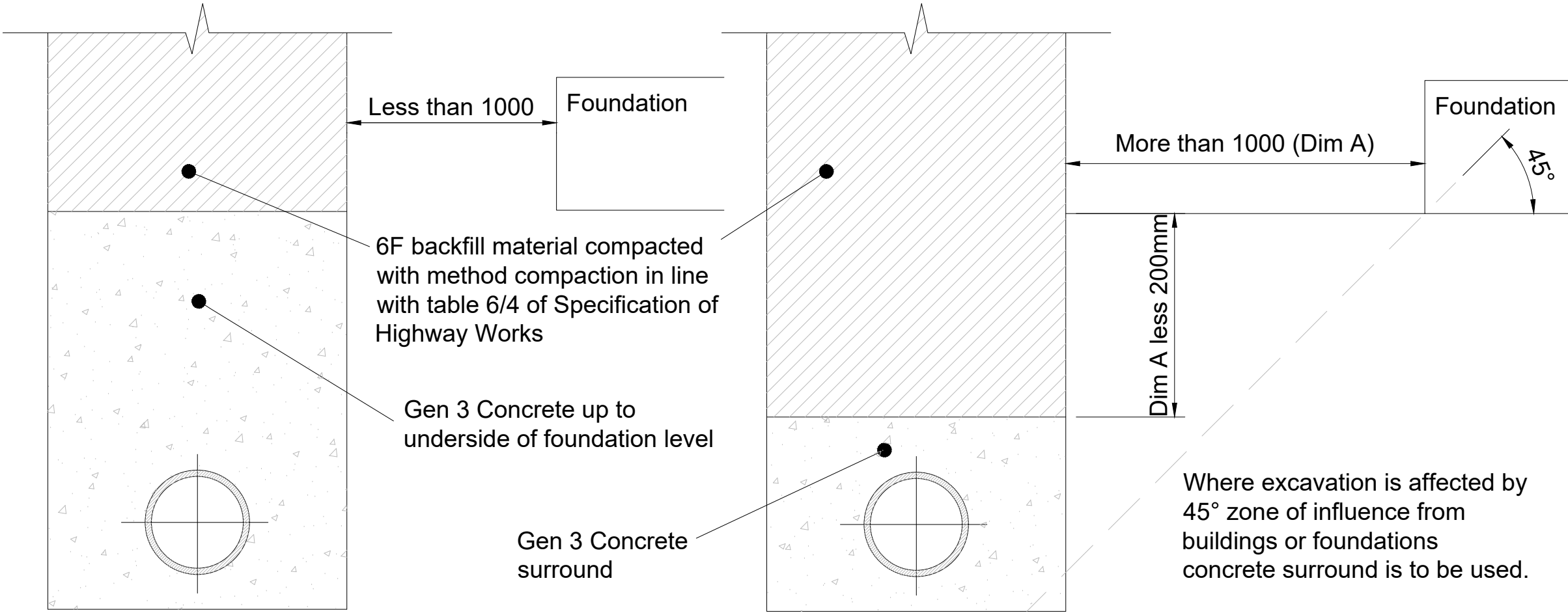
(Bitumen impregnated insulating board to BS 1142: Part 3)



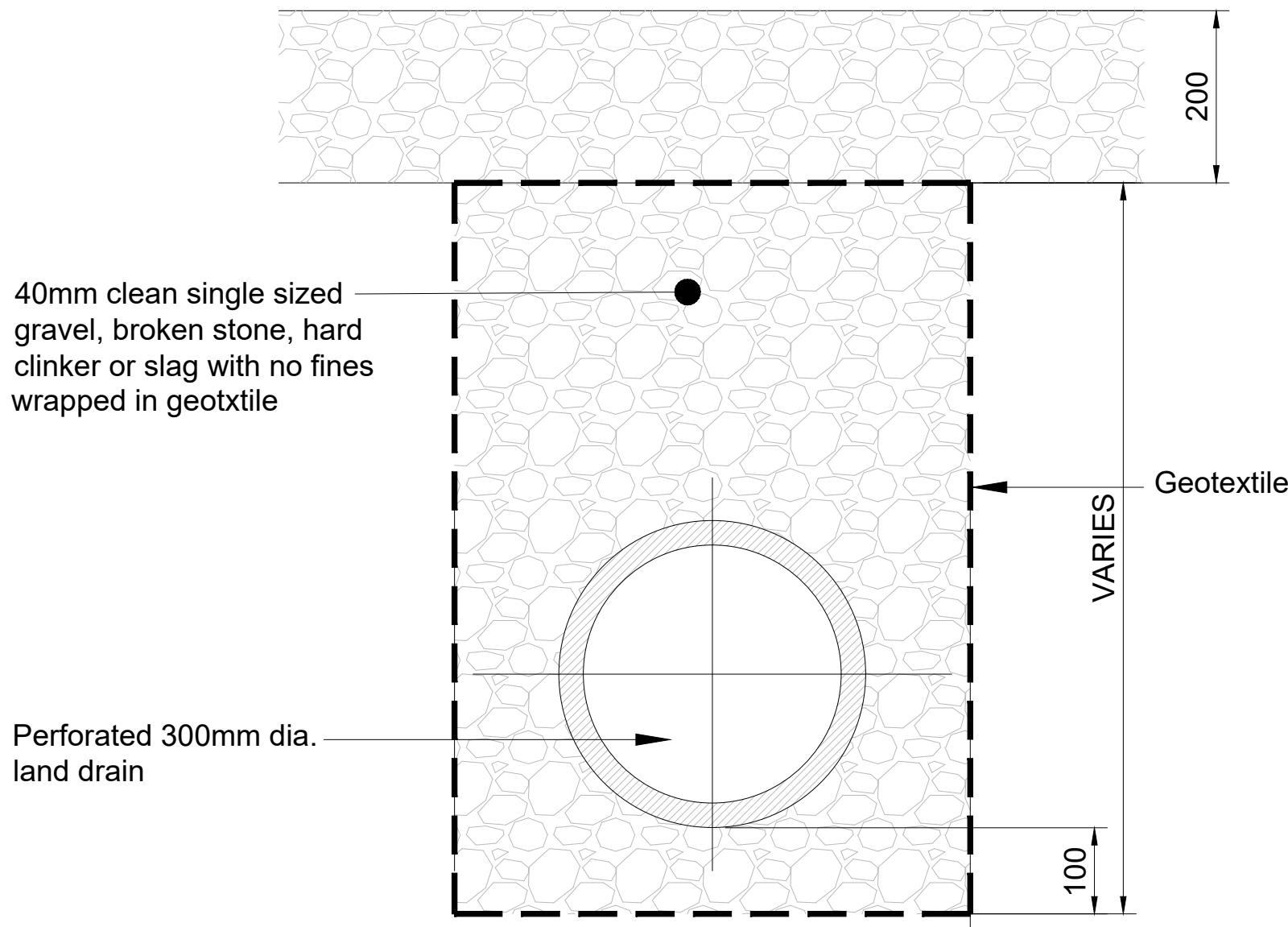
**Class Y Bedding Detail**  
(Cast integral with floor slab, including internal inspection chambers)



**Class S Bedding Detail - Cover >0.9m**  
(Excavation and backfill material to be wrapped with Geotextile)



**Detail indicating concrete backfilling to trenches in close proximity to building and foundations)**



**Filter Drain Detail**  
(Excavation and backfill material to be wrapped with Geotextile)

| DN (mm)                                                                                                                                                                                                                                                                                         | Supported trench minimum width (OD <sub>n</sub> + x) m | Unsupported trench minimum width (OD <sub>n</sub> + x) m |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------|------------------------|
|                                                                                                                                                                                                                                                                                                 |                                                        | β > 60°                                                  | β ≤ 60°                |
| ≤225                                                                                                                                                                                                                                                                                            | OD <sub>n</sub> + 0.40                                 | OD <sub>n</sub> + 0.40                                   |                        |
| >225 to ≤350                                                                                                                                                                                                                                                                                    | OD <sub>n</sub> + 0.50                                 | OD <sub>n</sub> + 0.50                                   | OD <sub>n</sub> + 0.40 |
| >350 to ≤700                                                                                                                                                                                                                                                                                    | OD <sub>n</sub> + 0.70                                 | OD <sub>n</sub> + 0.70                                   | OD <sub>n</sub> + 0.40 |
| >700 to ≤1200                                                                                                                                                                                                                                                                                   | OD <sub>n</sub> + 0.85                                 | OD <sub>n</sub> + 0.85                                   | OD <sub>n</sub> + 0.40 |
| >1200                                                                                                                                                                                                                                                                                           | OD <sub>n</sub> + 1.00                                 | OD <sub>n</sub> + 1.00                                   | OD <sub>n</sub> + 0.40 |
| NOTE:<br>In the values OD <sub>n</sub> + x, x/2 equals the minimum working space between the pipe and the trench wall or the support if present.<br>Where OD <sub>n</sub> is the horizontal outside diameter, in metres<br>β is the angle of unsupported trench side measured to the horizontal |                                                        |                                                          |                        |

**Table 1 BS EN 1610 : 2015 - Minimum trench width depending on the nominal diameter (DN) of the pipe.**

| Trench Depth (m)                                 | Minimum trench Width (m)  |
|--------------------------------------------------|---------------------------|
| <1.00                                            | No minimum width required |
| ≥ 1.00 ≤ 1.75                                    | <1.00                     |
| > 1.75 ≤ 4.00                                    | <1.00                     |
| > 4.0                                            | <1.00                     |
| <sup>a</sup> maximum depth of unsupported trench |                           |

**Table 2 BS EN 1610 : 2015**  
**Minimum trench width depending on the trench depth**

**NOTES**

- All dimensions are to be checked on site before commencement of works. Work to figured dimensions only. Do not scale off this drawing. Any discrepancies are to be reported to Hydrock for clarification.
- This drawing is to be read in conjunction with all relevant Hydrock drawings and specifications.
- This drawing is to be read in conjunction with all relevant Architectural and M&E Services drawings and specifications.

**REVISIONS**

|      |                |          |           |                    |
|------|----------------|----------|-----------|--------------------|
| T02  | TENDER ISSUE   | 06.02.25 | N.MEHMOOD | C.FELL   N.BYRNE   |
| T01  | FIRST ISSUE    | 20.12.24 | S.JONES   | C.FELL   N.BYRNE   |
| Rev. | Revision Notes | Date     | Drawn By  | Checked   Approved |


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**CLIENT**

NETWORK SPACE

**PROJECT**

WELCOMB STREET  
MANCHESTER

**TITLE**

DRAINAGE & EXTERNAL PAVEMENT DETAILS  
SHEET 3

|                                                 |  |                               |                        |
|-------------------------------------------------|--|-------------------------------|------------------------|
| HYDROCK PROJECT NO.<br><b>C-22975</b>           |  | SCALE @ A1<br><b>AS SHOWN</b> |                        |
| STATUS DESCRIPTION<br><b>TENDER</b>             |  |                               | STATUS<br><b>D4</b>    |
| DRAWING NO.<br><b>22975-HYD-XX-XX-DR-C-1103</b> |  |                               | REVISION<br><b>T02</b> |