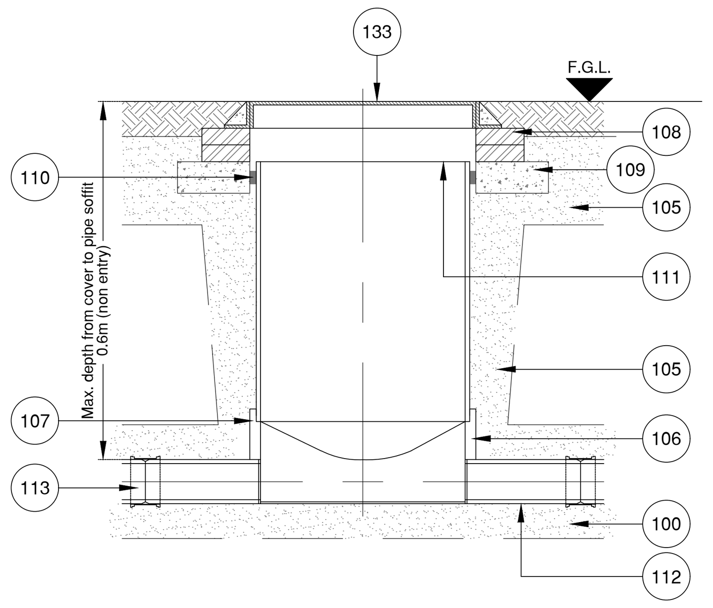
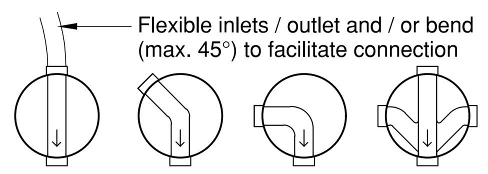


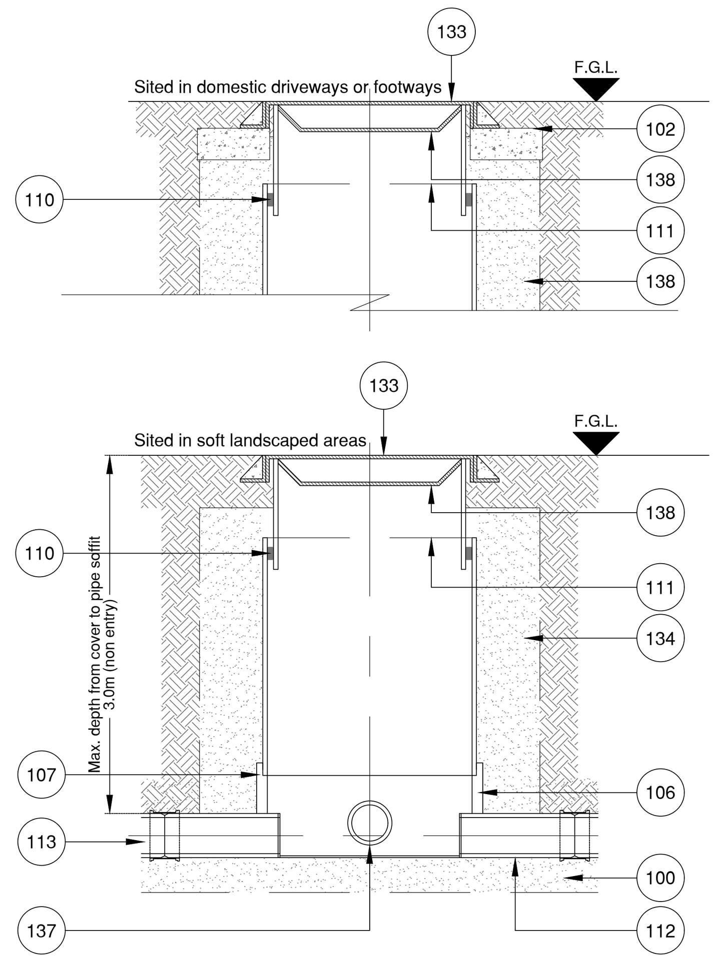
## Typical access chamber detail - Type 3

(Flexible material detail)

Minimum internal dimensions 450mm dia. or 450mm x 450mm



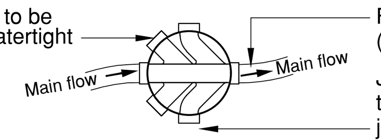

Plastic chambers and rings shall comply with BS EN 1395-1 and BS EN 13592-2 or have equivalent independent approval




## Typical access chamber detail - Type 4

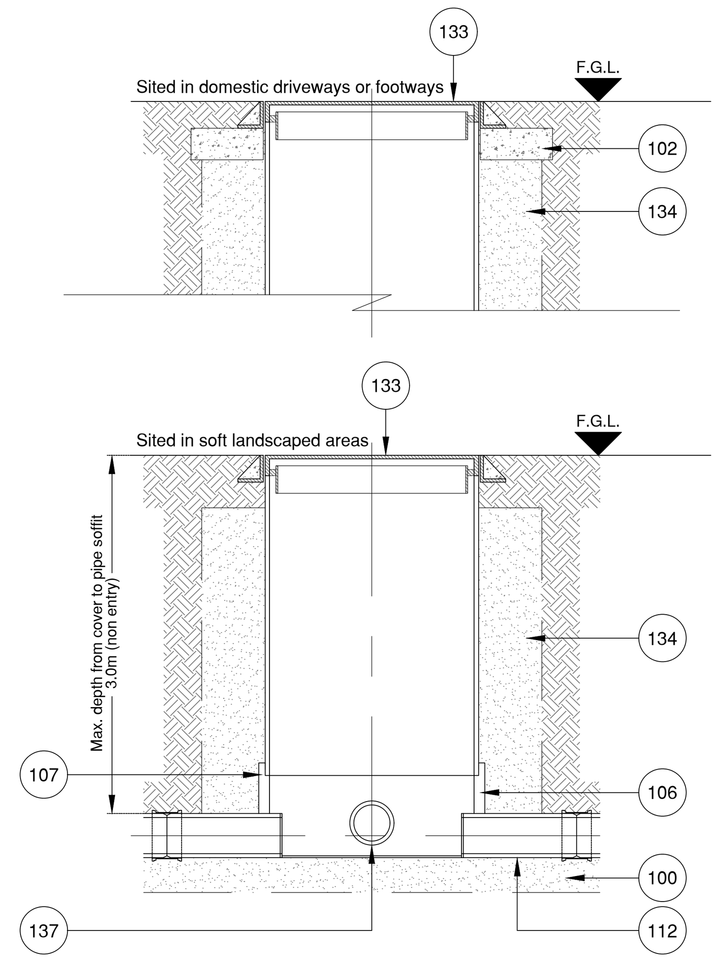
(Flexible material detail)

Minimum internal dimensions 450mm dia. or 450mm x 450mm




Where chambers are positioned on 90° corners always use the main channel by fitting a 45° bend on the inlet and outlet

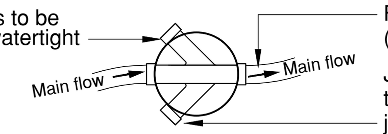
Plastic chambers and rings shall comply with BS EN 1395-1 and BS EN 13592-2 or have equivalent independent approval




## Typical access chamber detail - Type 5 or 6

(Flexible material detail)

Type 5 - Minimum internal dimensions 450mm dia. or 450mm x 450mm
Type 6 - Minimum internal dimensions 190mm dia. or 225mm x 100mm




Where chambers are positioned on 90° corners always use the main channel by fitting a 45° bend on the inlet and outlet

Plastic chambers and rings shall comply with BS EN 1395-1 and BS EN 13592-2 or have equivalent independent approval

| | |
|---|---|
| 100 | Granular bedding material |
| 101 | Compacted backfill - As-dug or granular bedding material |
| 102 | 150mm deep concrete collar |
| 103 | Cover to suit BS EN 124 loading Gardens - Grade A15<br>Driveway and footways - Grade B125<br>Maximum cover opening to be 350mm |
| 104 | 350mm minimum radius |
| 105 | DOT Type 1 sub base ( thickness varies ) |
| 106 | Base unit to have connection with soffit levels set no lower than that of the main pipe |
| 107 | Joints between base and shaft and between shaft components to be fitted with watertight seals |
| 108 | Class B engineering brickwork, concrete blocks 4 courses maximum or 2 courses minimum. or precast concrete cover frame seating rings |
| 109 | Precast concrete slab or in-situ concrete slab to support cover and frame |
| 110 | Flexible seal |
| 111 | Temporarily cap manhole shaft during construction |
| 112 | Rocker pipe |
| 113 | Joint be to as close as possible to face of chamber to permit satisfactory joint and subsequent movement |
| 114 | Grade C light duty oval cover, sealing ring and rodding eye in 100mm insitu concrete surround set level with finished ground level. |
| 115 | Pipe cut to required length. |
| 116 | Concrete bed and surround will be required where inspection chambers are installed in soft landscaped areas subjected to heavy construction traffic. |
| 117 | 45 degree bend. |
| 118 | Oblique 45 degree junction. |
| 119 | PVCu rainwater down pipe. (CSS) |
| 120 | Rest bend, for use up to two storey only. |
| 121 | 100mm bed of selected as dug or granular material; if ground conditions unstable (Site Control to confirm) use 100mm bed of GEN 4 Designated Mix insitu concrete. |
| 122 | Short radius 90 degree bend. |
| 123 | Square hopper with back inlet and alloy grid or sealing plate. |
| 124 | Cement mortar joint/infill. |
| 125 | Minimum 150mm thick GEN 4 concrete surround. |
| 126 | Rubber plug. |
| 127 | Catchment bucket. |
| 128 | Round or square road gully with grating and frame to BS EN 124, Grade B as detailed on drainage layout and schedules, set in 1:3 cement and sand mortar centrally over gully chamber. |
| 129 | Round or square gully grid; black cast iron to drives with a bitumous surface and alloy finish elsewhere. |
| 130 | Minimum 100mm thick GEN4 concrete surround. |
| 131 | 150mm Precast base or In situ formed |
| 132 | Precast concrete manhole section to be bedded with mortar, proprietary sealant or elastomeric seals |
| 133 | Manhole cover to suit BS EN 124 loading Grade 125 |
| 134 | Compacted backfill - as-dug or granular bedding material |
| 135 | Precast concrete cover frame seating rings 350mm dia or 300mm x 300mm opening |
| 136 | Pipes built into chamber wall or joint formed with watertight seals |
| 137 | Invert of connecting pipe at least 50mm above that of the main pipe |
| 138 | Access opening restricted to 350mm dia. or 300mm x 300mm |
| 139 | Joints to be made with either butyl resin sealant or cement mortar |
| 140 | Precast concrete chamber sections |
| 141 | High-strengh concrete topping minimum 20mm thick Benching slope to be 1:10 to 1:30 |
| 142 | Inverts to be formed using channel pieces |
| 143 | In-situ concrete to be GEN 3 (designed to BRE special Digest 1 Concrete in Aggressive Ground) |
| 144 | Arch over pipe |
| 145 | Class B engineering bricks or concrete blocks not less than 200mm thick |

## NOTES

1. This drawing is to be read in conjunction with Foul Water Sewer Longitudinal Sections (FON-160-01 to 04), Surface Water Sewer Longitudinal Sections (FON-161-01 to 03), Highways Construction Details (FON-180-01 to 02), Highways Contours Layouts (FON/121-01 to 18), Highways Setting out Layout (FON-113-01 to 02), Highways Setting Out Coordinate Listings (FON-113-03), Drainage Construction Details (FON-181-01 to 02), Foul Water Manhole Schedules (FON-141-01 to 03), Surface Water Manhole Schedules (FON-140-01 to 02), Domestic Drainage Layouts (FON-130-01 to 18), Domestic Drainage Construction Details (FON-182-01 to 02), Surface Water Attenuation Details (FON-183-01 to 02 ) and Building Setting Out Layouts (FON-110-01 to 18).
2. All dimensions are in millimetres unless stated otherwise.
3. Do not scale from this drawing. Only written dimensions are to be used.
8. **All construction to be in accordance with Sewers for Adoption - 6th Edition & Interim Addendum and ICOSA Water specific requirements.** and Part H of the Building Regulations
9. Refer to geotechnical report for sulphate resisting class and ACEC class.
10. Insitu concrete generally to be GEN 4 Designated Mix.
11. Insitu reinforced concrete to be RC 35 Designated Mix only when specified.
12. Where sulphates present, Consulting Engineer to confirm concrete and mortar specification.
13. All insitu concrete to be thoroughly compacted.
14. Typical domestic inspection chamber and manhole details shown on this drawing, widths and lengths will vary as follows:-
15. All covers to be stamped "FW" or "SW". as appropriate.
16. For Manufacturer and specification of pipes and fittings refer to drainage layout and schedule.
17. Drainage pipes and fittings to be Hepworth vitrified clay and PVCu or Wavin Osma PVCu or other equavalent approved. Refer to drainage layout and schedules for details of manufacturer and specification.
18. Mild steel fabrication to be hot dip galvanised to BS EN 1461.
19. ***Outgoing pipes greater than 600mm dia. should be fitted with guard bars, safety chains [to BS4942 pt 2 and BS 729] or other safety devices in accordance with the Southern Water safety policy.***

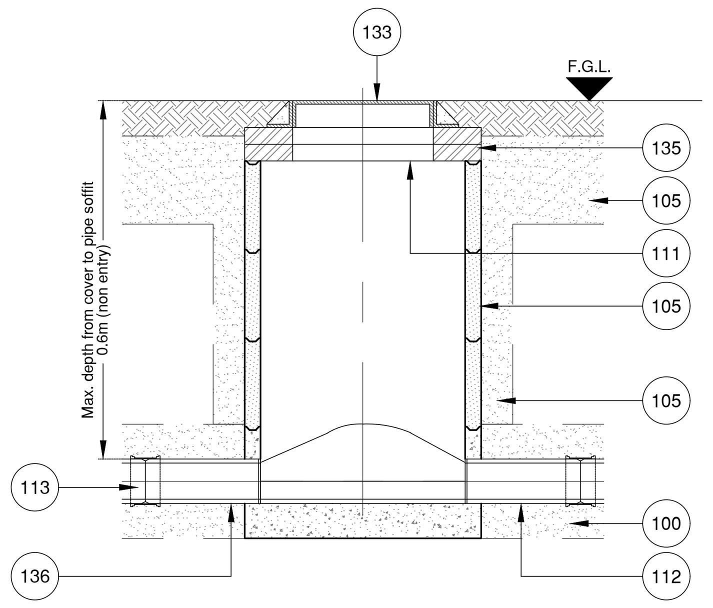
## DEPTH OF PIPE COVER

The minimum depth of pipe cover to the crown of gravity pipes without protection should be as follows:

- domestic gardens and pathways without any possibility of vehicular access, 0.35m;
- domestic driveways, parking areas and yards with height restrictions to prevent entry by vehicles with a gross weight in access of 7.5 tonnes, 0.5m;
- domestic driveways, parking areas and narrow streets without footways (e.g., mews developments) with limited access for vehicles with a gross weight in excess of 7.5 tonnes, 0.9m;
- agricultural land and public open space, 0.9m;
- other highways and parking areas with unrestricted access to vehicles with a gross vehicle weight in excess of 7.5 tonnes, 1.2m.

### CDM NOTES

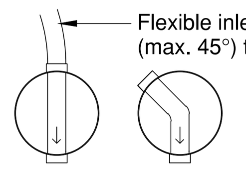
1. EXISTING SERVICES. Depth of existing services must be determined prior to works commencing. The contractor is responsible for establishing underground services in accordance with HSE Guidance note HS (G) 47. Any services which would be within the proposed construction layers must be lowered to below the sub-base.

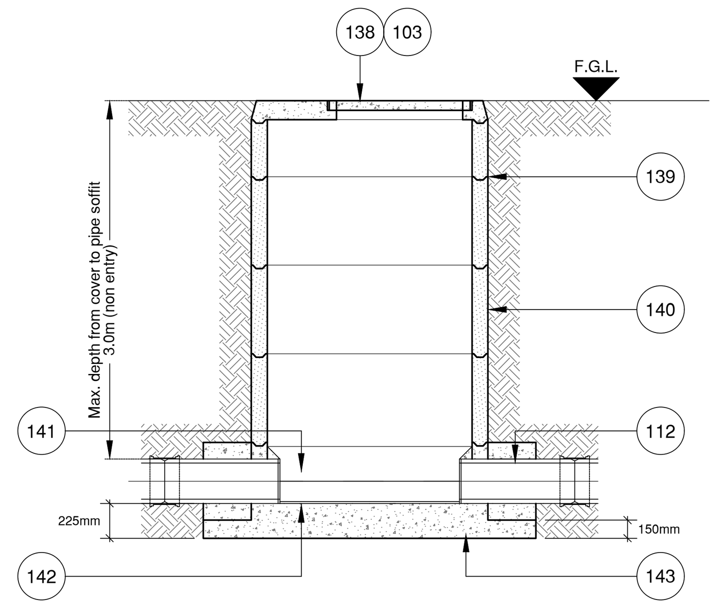


## Typical access chamber detail - Type 3

(rigid material detail)

Minimum internal dimensions 450mm dia. or 450mm x 450mm

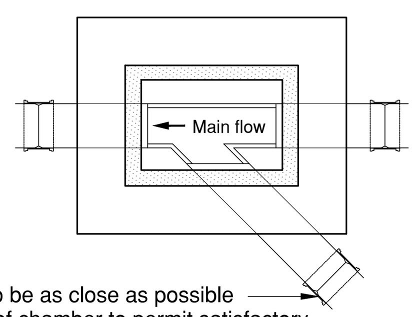


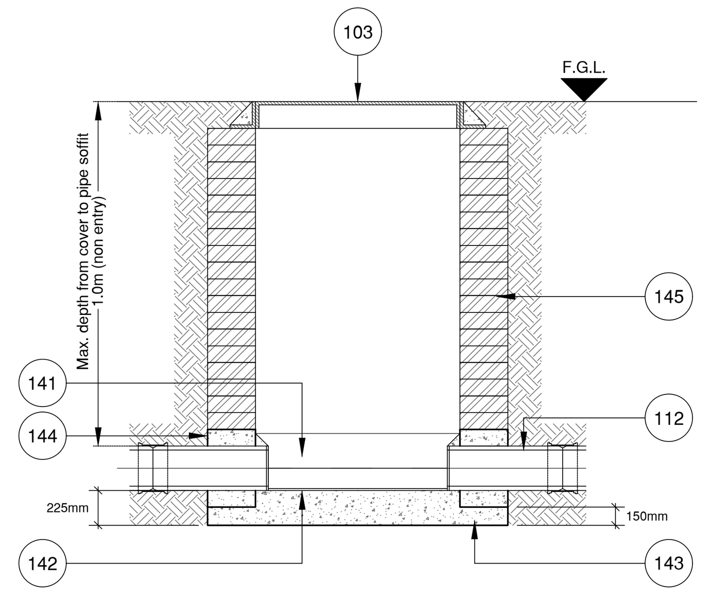
## Typical access chamber detail - Type 4

(rigid material detail)

Minimum internal dimensions 450mm dia. or 450mm x 450mm



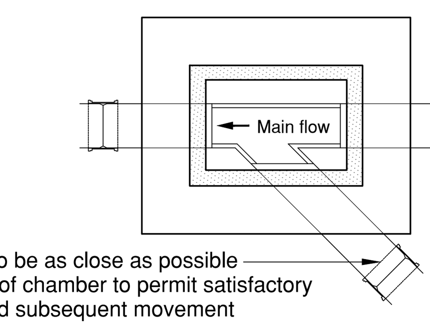

Joints to be as close as possible to face of chamber to permit satisfactory joint and subsequent movement



## Typical access chamber detail - Type 5 or 6

(rigid material detail)

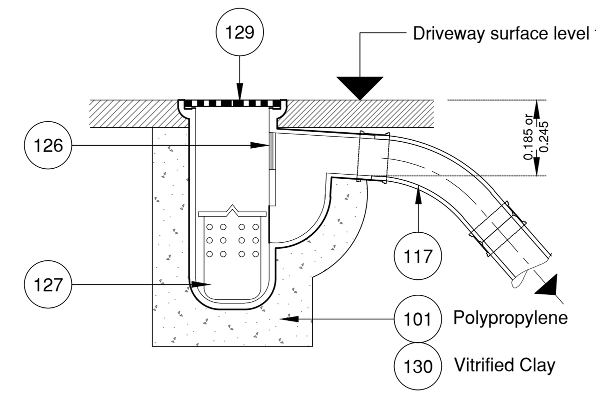
Type 5 - Minimum internal dimensions 450mm dia. or 450mm x 450mm
Type 6 - Minimum internal dimensions 190mm dia. or 225mm x 100mm




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

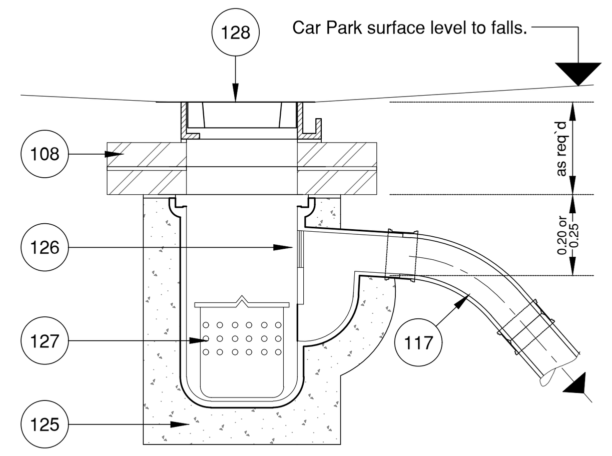
Where chambers are positioned on 90° corners always use the main channel by fitting a 45° bend on the inlet and outlet

Note: The use of precast rectangular concrete manhole units with 150mm grade GEN3 concrete surround (designed to BRE special Digest 1 Concrete in Aggressive Ground)



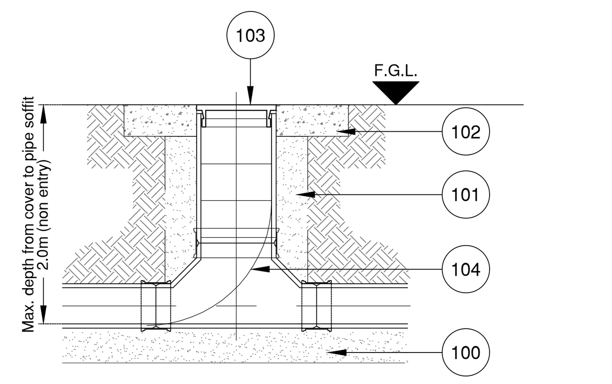

## Private Drive Gully

Round or square polypropylene or vitrified clay gully.
300mm diameter x 600mm invert depth.
100 or 150mm dia. connection.




## Private Car Park Gully

Round or square polypropylene or vitrified clay gully.
300mm diameter x 600mm invert depth.
100 or 150mm dia. connection.

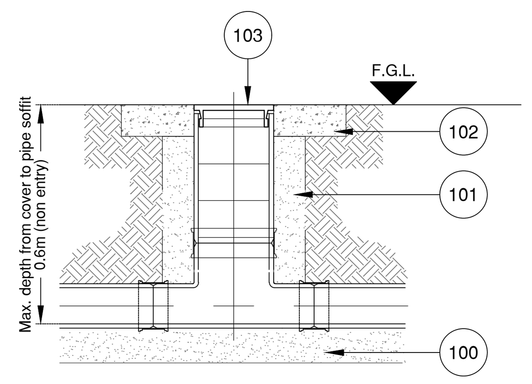


## Typical access chamber detail - Type 7

Minimum internal diameter 190mm or 225mm x 100mm

Note: NO CONNECTION ALLOWED

Plastic chambers and rings shall comply with BS EN 1395-1 and BS EN 13592-2 or have equivalent independent approval

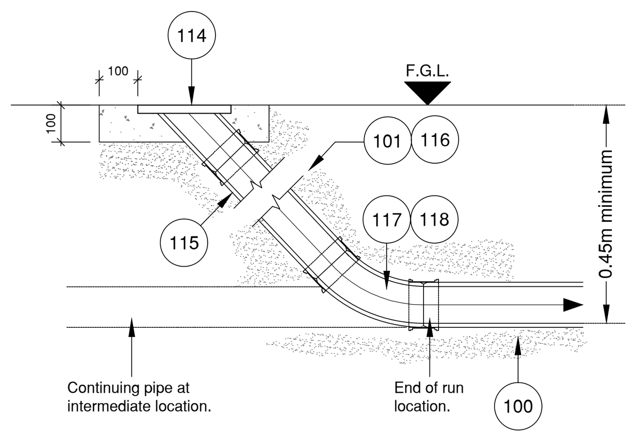


## Typical access chamber detail - Type 8

Minimum internal diameter 190mm or 225mm x 100mm

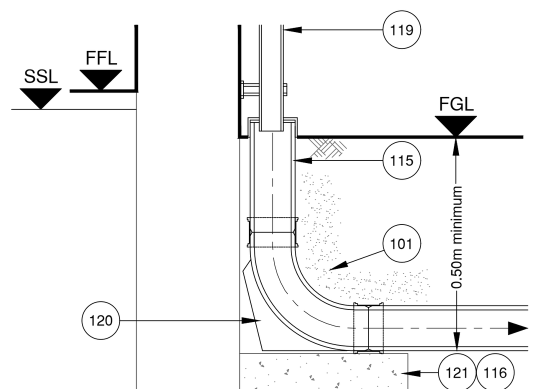
Note: NO CONNECTION ALLOWED

Plastic chambers and rings shall comply with BS EN 1395-1 and BS EN 13592-2 or have equivalent independent approval

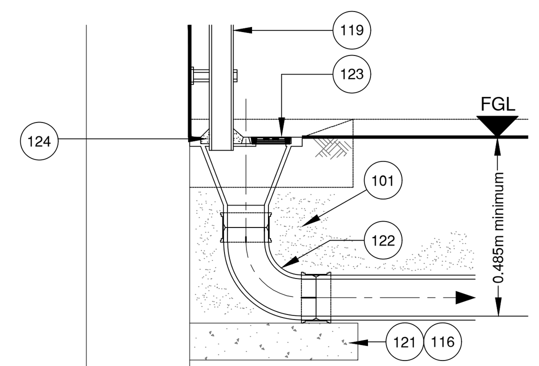



## Rodding Point

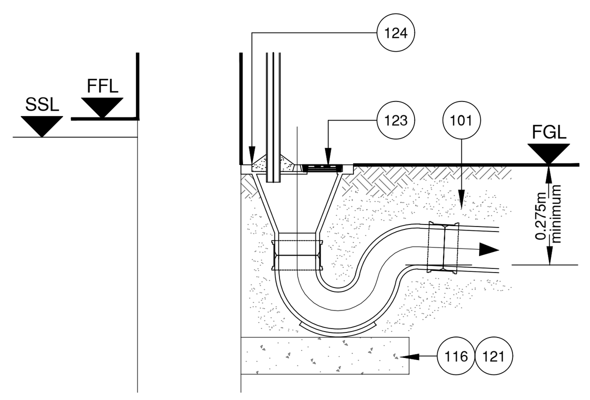
100 or 150mm dia. connections.



## Direct Rainwater Connection



## Direct Rainwater Connection through Gully



## External sink waste into trapped Back inlet gully

| Rev. | Date | Details | By | Chkd | Appd |
|---|---|---|---|---|---|
| A | 26.05.20 | Drawing number update to Dandara numbering system | TRS | TRS | |

Client:- dandara

Site:- Fontwell Eastergate Arundel

Drawing Title:- DOMESTIC DRAINAGE CONSTRUCTION DETAILS

SHEET 1 OF 2

Date: March 2020 | Scales: Not to scale at A1

Drawn: GD-I | Checked: LD | Approved: TRS

Drawing No. FON-182-01-A

**INITIAL TENDER ISSUE**

SUBJECT TO PLANNING APPROVAL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Architectural and Civil Consultants
The Old School Old School Road
Hook Hampshire RG27 9NJ
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ARUN DISTRICT COUNCIL WA/99/20/DOC