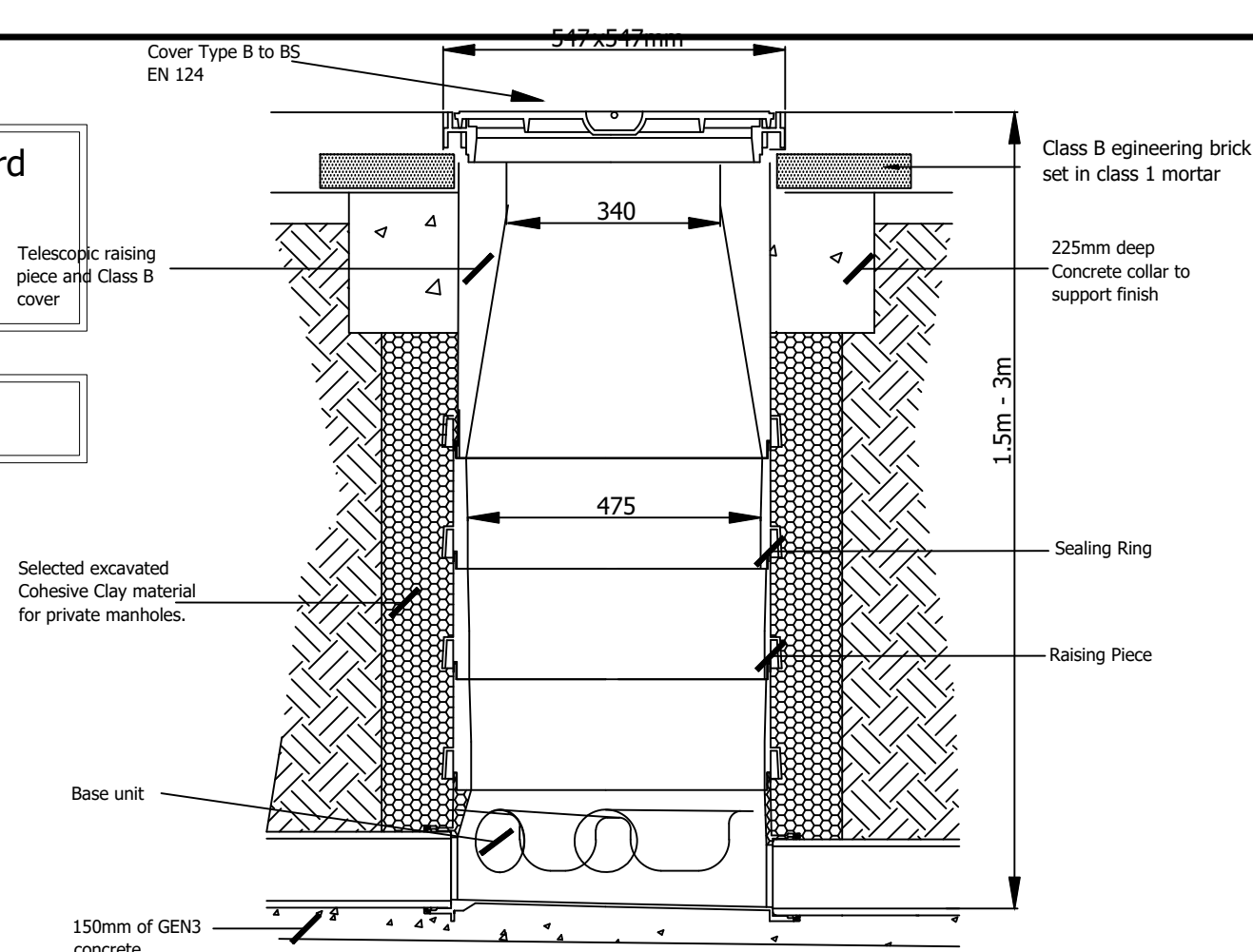




Standard circular ductile iron cover and frame
 This type of cover is not suitable where loads will exceed 1 tonne (For loads exceeding 1 tonne see detail below)

Raising Piece

Selected as dug material compacted to form a stable backfill. If as dug material is not suitable, use DFT. Specified Type 1 Granular material.

Raising Piece

Base unit (see table below)

100mm of granular material for manholes situated in soft landscaped areas 150mm of ST3 concrete for manholes situated in trafficked areas.

600 mm

Pre-formed benching connection points as per table below

For light traffic use Cover Type B to BS EN 124

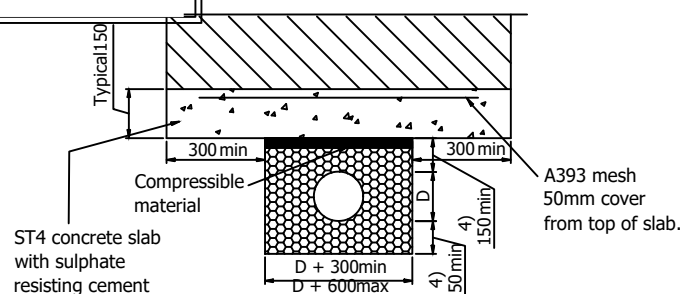
For light traffic use Cover Type B to BS EN 124

225mm

Class B engineering brick set in class 1 mortar

225mm x 225mm ST3 concrete collar to receive cover & frame, where load exceeds 1 tonne and frame suitably specified.

Cover detail where load exceeds 1 tonne



Loading	Cover	Best practice to avoid service clashes and damage during construction
Fields / gardens	0.6m	
Light traffic/parking areas	0.9m	
Heavy Traffic areas	1.2m	

Nominal pipe diameter [mm]	Aggregate size [mm]	
	Graded	Singlesized
100	-	10
Over 100 to 150	14/5	10, 14
Over 150 to 300	14/5, 20/5	10, 14, 20
Over 300 to 550		14, 20
Over 550	14/5, 20/5, 40/5	14, 20, 40

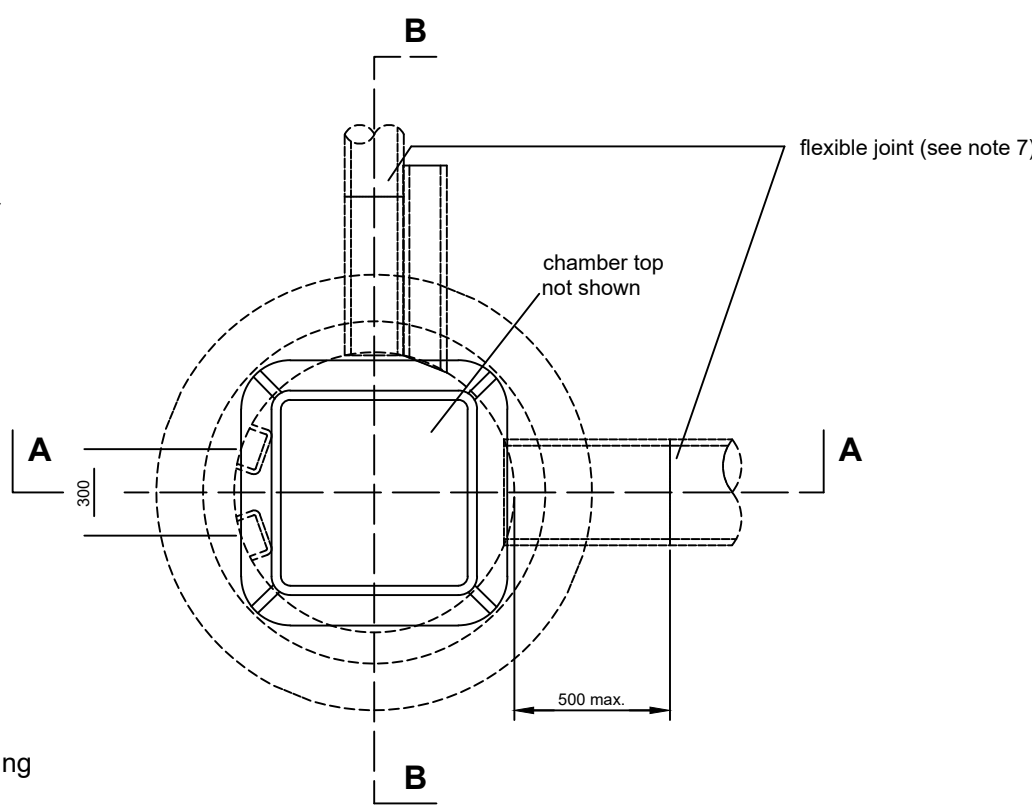
	Imported GranularMaterial See Table2
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 General Excavated Material:
The material shall consist of clean

 Selected Excavated Material:
Whether selected from locally excavated

- The fill material shall be placed and compacted over the full width of the trench in layers not exceeding 150 mm before compaction, to a finished thickness of 225 mm above the crown of the pipe.
- Construction traffic and loads due to construction processes.

The contractor shall provide any necessary temporary protection to ensure that pipelines, manholes etc. are not damaged as a result of heavy construction traffic or to other loads due to construction processes.



As per Warwickshire County Council drawing F 703.1

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. DO NOT SCALE FROM THIS DRAWING

This drawing was reproduced from a digital source and may not be at true scale. It is the recipient's responsibility to confirm its accuracy.

Catchpit Type	Chamber Diameter (mm)	Base Slab Diameter (mm)
A	900	1400
B	1050	1550
C	1200	1700
D	1350	1850
E	1500	2000

1. Precast concrete shall comply with the requirements of BS 59113 and BS EN 1917.
2. Refer to the scheme specific drawings, Appendix 5/1 and the drainage schedule for invert level, cover level and branch connection details.
3. Mortar shall be designation (i) to S.H.W. Clause 2404.
4. Pipes shall be grouted into catchpits with mortar.
5. 65mm diameter pipes 600mm long shall be built into catchpits to drain the sump of trenches on upstream connections. Pipes shall be positioned above any concrete filter drain beds.
6. Positioning of chamber access lids and step irons to be agreed with Overseeing Organisation.
7. Flexible joints adjacent to pipe connections shall comply with S.H.W. Clause 507.15.
8. Precast concrete catchpit rings shall be of a type manufactured to comprise sulphate resisting cement to BS 4027: 1996.
9. The chamber top shall be set as dimensioned below the adjacent:
 - a. hard shoulder or hardstrip (for verges or central reserves on carriageways without concrete kerbing; and
 - b. finished ground level in all other off carriageway locations.
 Where catchpits are to be constructed within the carriageway, the chamber top shall be set flush with the carriageway surface.
10. Catchpits in new carriageway shall be raised to finished road level following completion of binder course laying and prior to commencement of surface course laying, as prescribed by BS 594987:2007 clause 6.9.
11. Brickwork shall be English bond and comprise Class B clay engineering bricks to BS EN 722-3: 1998 and BS EN 722-7: 1998, bedded on mortar. Brickwork shall comply with S.H.W. Clauses 2406 and 2412.
12. This detail applies only to those catchpits where the distance between cover level and catchpit invert level does not exceed 2.0m.
13. Chamber cover and frame to be ductile iron Class D400, non-rocking to BS EN124:2015 and HA 104/09.

DO NOT SCALE.

This drawing should be read in conjunction with all other relevant drawings and details.

If there is any conflict between the information on this drawing and that indicated on other drawings the Engineer should be consulted BEFORE commencement of construction on site.

It should be understood that all drawings issued are Preliminary and NOT for construction until technical approval has been obtained from the relevant Authority. If the contractor commences site work prior to such approval being given, it is solely at his own risk.

All dimensions are given in millimetres unless noted otherwise.

The Risk Assessment and Hazard Identification and information for this project must be reviewed and understood by the contractor BEFORE the commencement of any works on site.

The Contractor is responsible for checking all tie-ins for line and level with existing prior commencement of any works. If any errors are found The Engineer, should be notified immediately in writing.

The positions of soil & vent pipes & rainwater pipes etc and level information on this drawing are indicative only. Refer to current Architects' Plans (or location/s). The drainage design may require the change after all those locations have been confirmed. All rainwater and soil and vent pipes shall be completed with rodding access.

Building Regulations Part H apply to all private drains to be constructed.

All private drains/sewers to be 100 mm diameter unless noted otherwise.

For details of pipes penetrating walls and pipe runs near buildings refer to Building Regulations Part 'H'.

All workmanship should be in accordance with the most current British Standards.

The drainage is designed for the normal rain catch. Should additional loads over & above those designed for may arise during the construction process, the Contractor shall ensure any necessary temporary protection is in place for pipelines, manholes etc. so nothing is damaged as a result of his method of working.

Pipe gradients shown are indicative only and are not to be used for setting out.

Internal drainage indicative only. Architects or M&E engineers drawings should be referred to for in-house connections.

Contractor to liaise with Statutory Undertakers and Services Owners to agree services diversions if necessary.

Design subject to change when foundation type confirmed.

Cover levels may need adjustment to suit surface (if lower than shown Engineer is to be notified).

IF GRADIENTS STEEPER THAN 3% ON PERMEABLE PAVEMENT - CHECK DAMS TO BE PROVIDED.

Rev	Date	Description	By	Clk
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Client

CBS Engineering

Project

105 Raleigh Rd
London

Title

Drainage Details Sheet 1

Drawing Status

PRELIMINARY

Job No.

PK146

Drawn

hecked

Scale at A1

Date	
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Issue Date

Drawing No. PK146-160

Revised
DO