

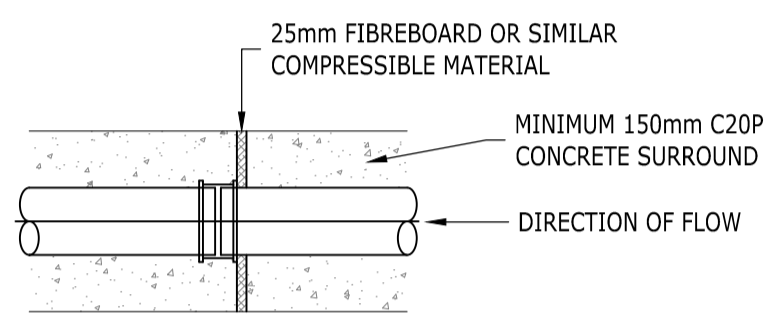
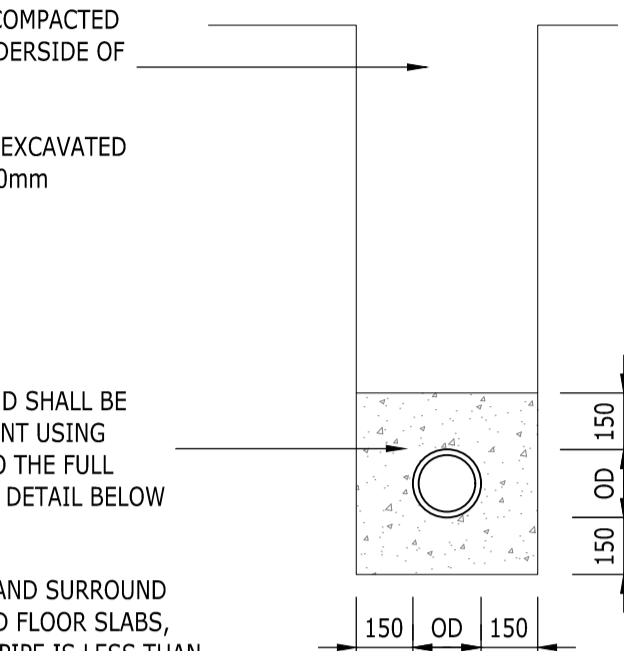
CLASS Z CONCRETE BED AND SURROUND

TRENCH BACKFILL:

1. UNDER ROADS AND FOOTPATHS USE TYPE 1 GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO THE UNDERSIDE OF SURFACING CONSTRUCTION.
2. ELSEWHERE USE SELECTED EXCAVATED MATERIALS COMPACTED IN 150mm LAYERS

CONCRETE BED AND SURROUND SHALL BE INTERRUPTED AT EACH PIPE JOINT USING 25mm THICK FIBRE BOARD TO THE FULL AREA OF THE CONCRETE - SEE DETAIL BELOW

USE CLASS Z CONCRETE BED AND SURROUND UNDER ALL FOUNDATIONS AND FLOOR SLABS, WHERE COVER TO CROWN OF PIPE IS LESS THAN 0.75m IN VEHICULAR ACCESS AREAS, AND WHERE PIPES ARE LAID WITHIN 1.0m OF FOUNDATIONS



CLASS S GRANULAR BED AND SURROUND

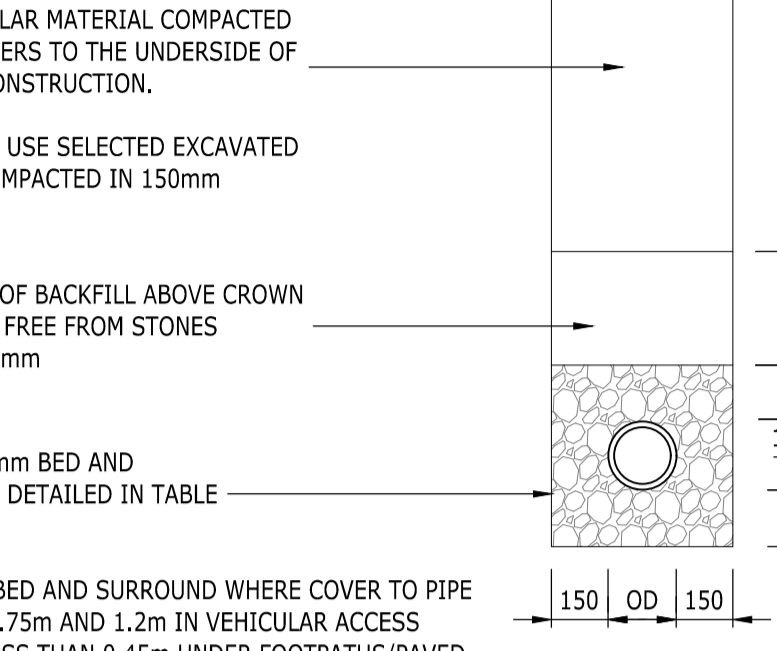
TRENCH BACKFILL:

1. UNDER ROADS AND FOOTPATHS USE TYPE 1 GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO THE UNDERSIDE OF SURFACING CONSTRUCTION.
2. ELSEWHERE USE SELECTED EXCAVATED MATERIALS COMPACTED IN 150mm LAYERS

FIRST 300mm OF BACKFILL ABOVE CROWN OF PIPE TO BE FREE FROM STONES EXCEEDING 40mm

MINIMUM 150mm BED AND SURROUND AS DETAILED IN TABLE BELOW

USE CLASS S BED AND SURROUND WHERE COVER TO PIPE IS BETWEEN 0.75m AND 1.2m IN VEHICULAR ACCESS AREAS AND LESS THAN 0.45m UNDER FOOTPATHS/PAVED AREAS



PIPE DIAMETER:	BEDDING MATERIAL:
1000	10mm SINGLE SIZE AGGREGATE
1010 - 1500	10mm OR 14mm SINGLE SIZE AGGREGATE
1510 - 5000	10mm, 14mm OR 20mm SINGLE SIZE AGGREGATE

NOTE: THE ABOVE MATERIALS ARE FOR GUIDANCE OTHER BEDDING MATERIALS CAN BE USED IN ACCORDANCE WITH THE PIPE MANUFACTURERS RECOMMENDATIONS I.E. SINTERED PULVERISED FUEL ASH AND AIR COOLED BLAST FURNACE SLAGS

CLASS B GRANULAR BED AND SURROUND

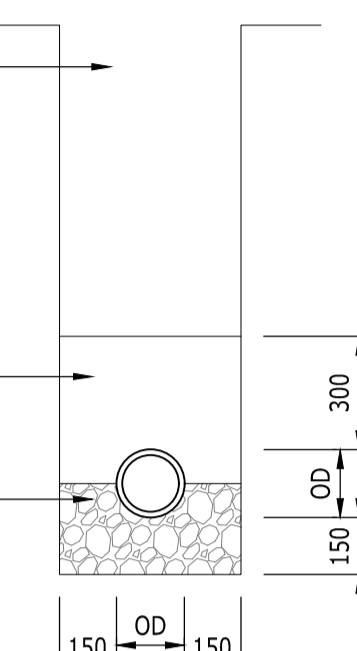
TRENCH BACKFILL:

1. UNDER ROADS AND FOOTPATHS USE TYPE 1 GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO THE UNDERSIDE OF SURFACING CONSTRUCTION.
2. ELSEWHERE USE SELECTED EXCAVATED MATERIALS COMPACTED IN 150mm LAYERS

FIRST 300mm OF BACKFILL ABOVE CROWN OF PIPE TO BE FREE FROM STONES EXCEEDING 40mm

MINIMUM 150mm BED AND SURROUND AS DETAILED IN TABLE BELOW

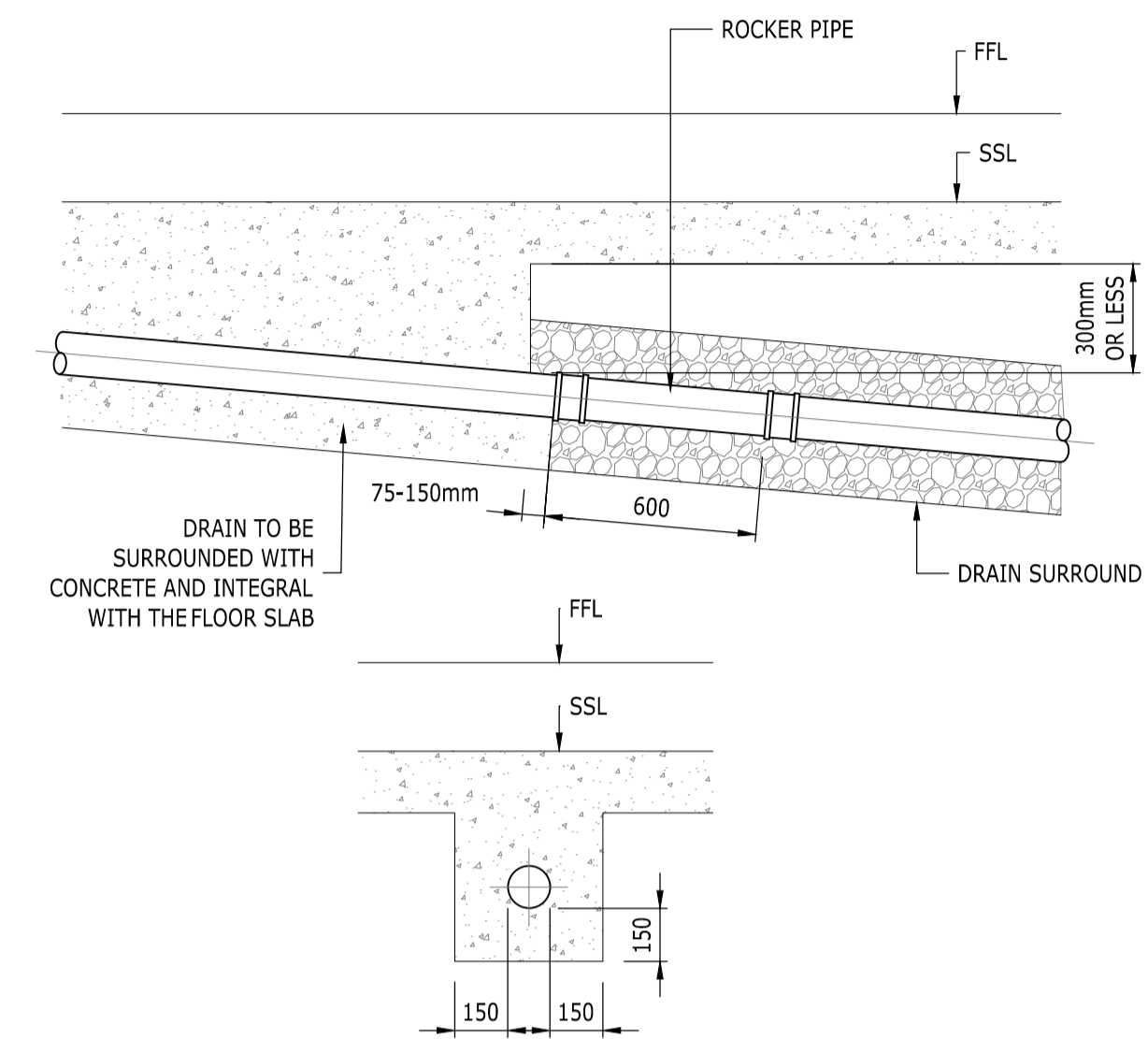
CLASS B BED TO BE USED WHERE COVER TO CROWN OF PIPE IS GREATER THAN 1.2m IN VEHICULAR ACCESS AREAS AND 0.45m IN FOOTPATHS/PAVED AREAS



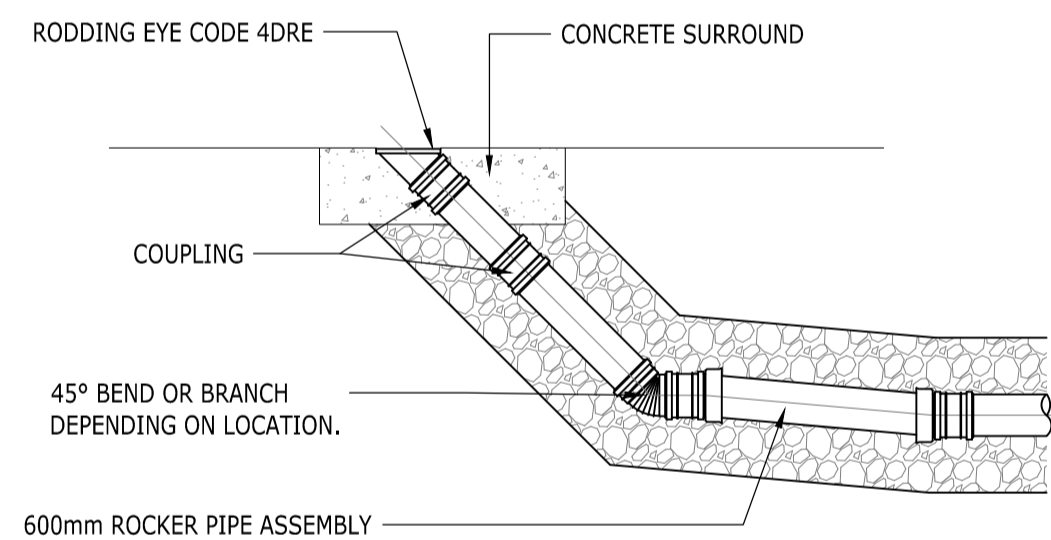
PIPE DIAMETER:	BEDDING MATERIAL:
1000	10mm SINGLE SIZE AGGREGATE
1010 - 1500	10mm OR 14mm SINGLE SIZE AGGREGATE
1510 - 5000	10mm, 14mm OR 20mm SINGLE SIZE AGGREGATE
5010 AND ABOVE	10mm, 14mm, 20mm OR 40mm SINGLE SIZE CRUSHED ROCK

NOTE: THE ABOVE MATERIALS ARE FOR GUIDANCE OTHER BEDDING MATERIALS CAN BE USED IN ACCORDANCE WITH THE PIPE MANUFACTURERS RECOMMENDATIONS I.E. SINTERED PULVERISED FUEL ASH AND AIR COOLED BLAST FURNACE SLAGS

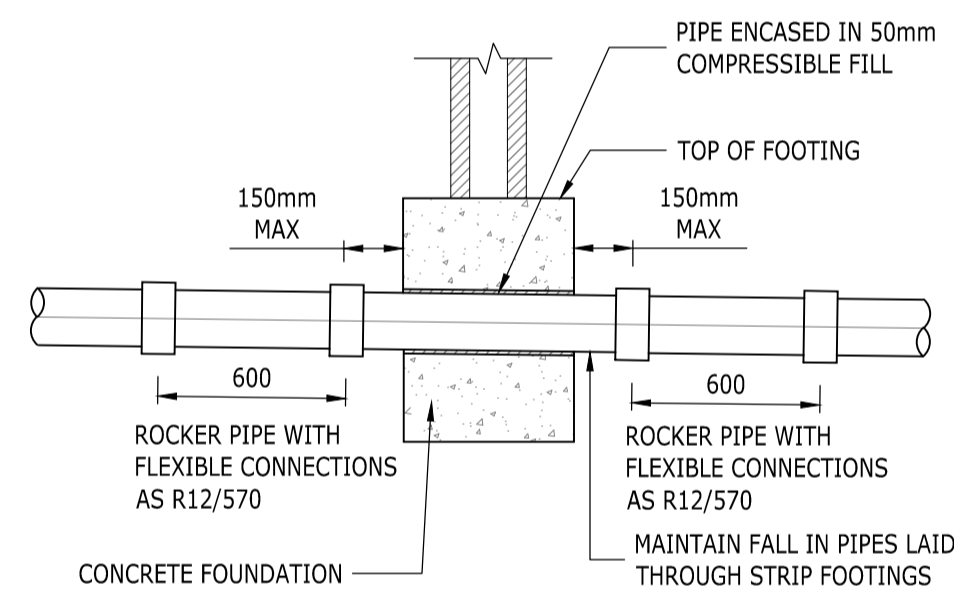
CLASS Y CONCRETE SURROUND WITHIN 300mm OF FLOOR SLAB



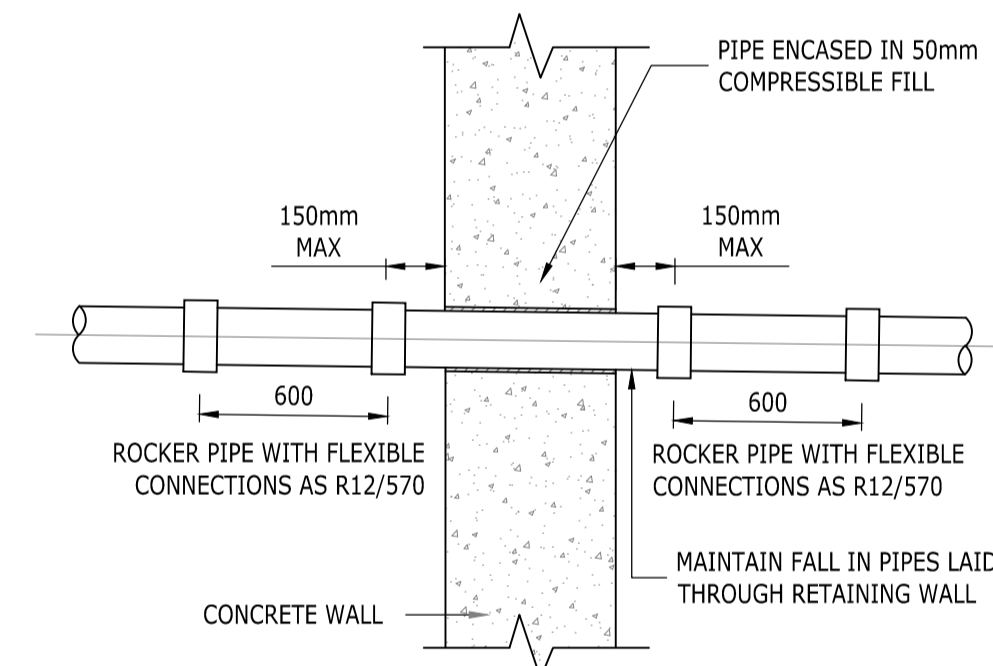
TYPICAL EXTERNAL RODDING EYE DETAIL



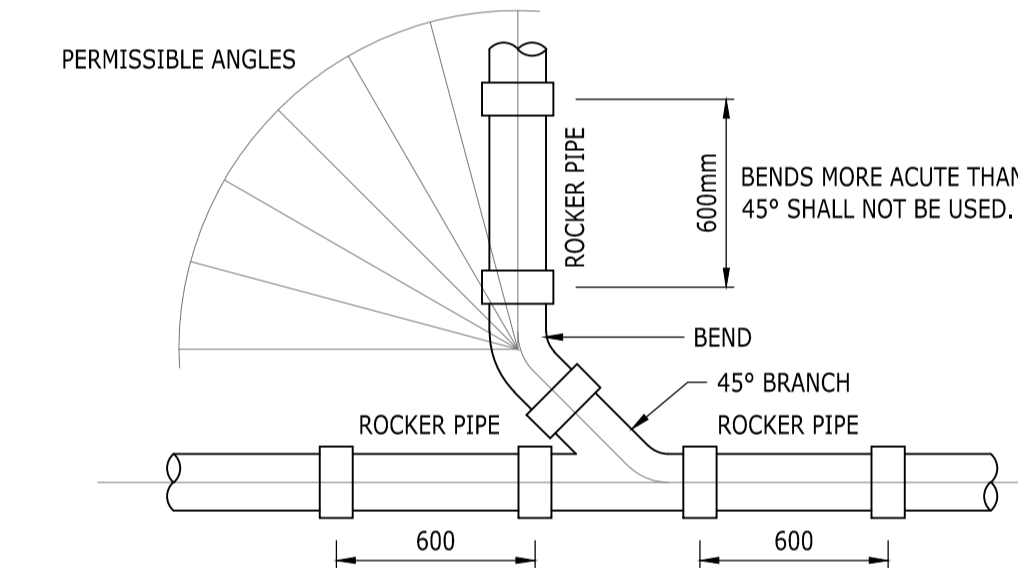
TYPICAL DRAIN/STRIP FOOTING PENETRATION DETAIL



TYPICAL PIPE PENETRATION THROUGH A CONCRETE WALL DETAIL

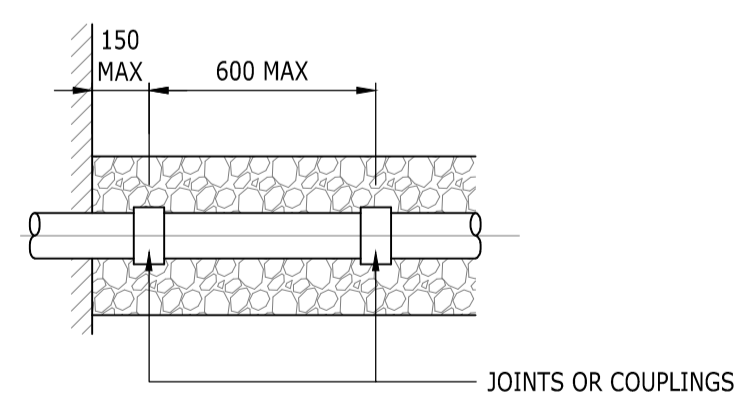


OBLIQUE JUNCTION ARRANGEMENT

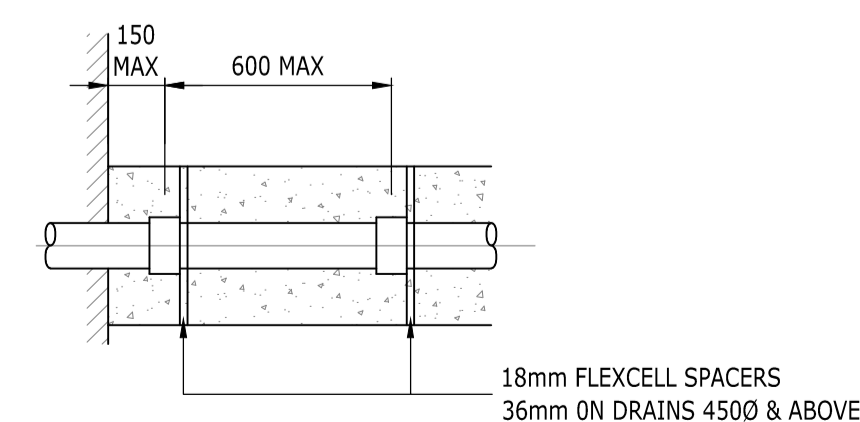


TYPICAL ROCKER PIPE ASSEMBLY DETAIL

THESE DETAILS APPLY TO ALL DRAINS AT FIXED POINTS I.E. AT FACE OF STRUCTURE, CHAMBERS ETC.

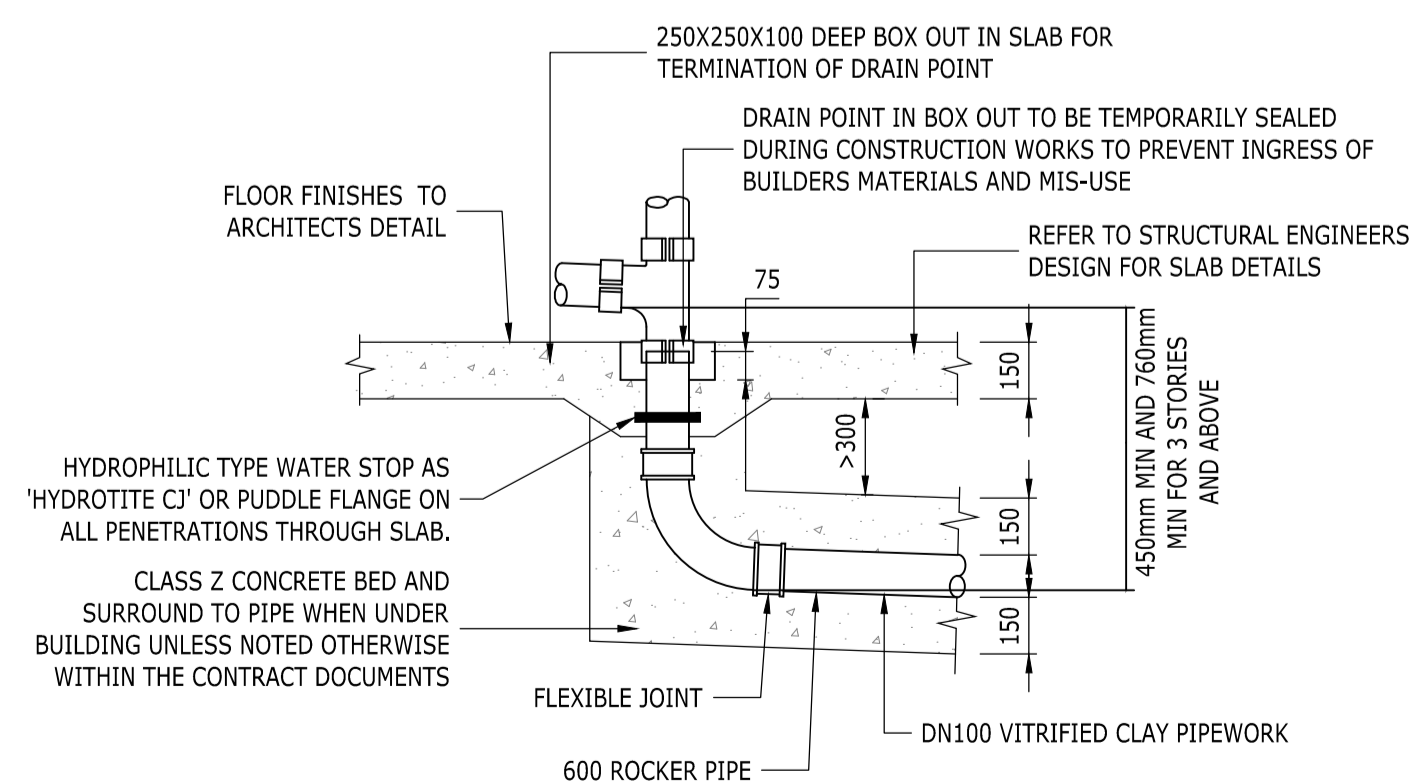


DETAIL 1
DRAIN WITH GRANULAR SURROUND

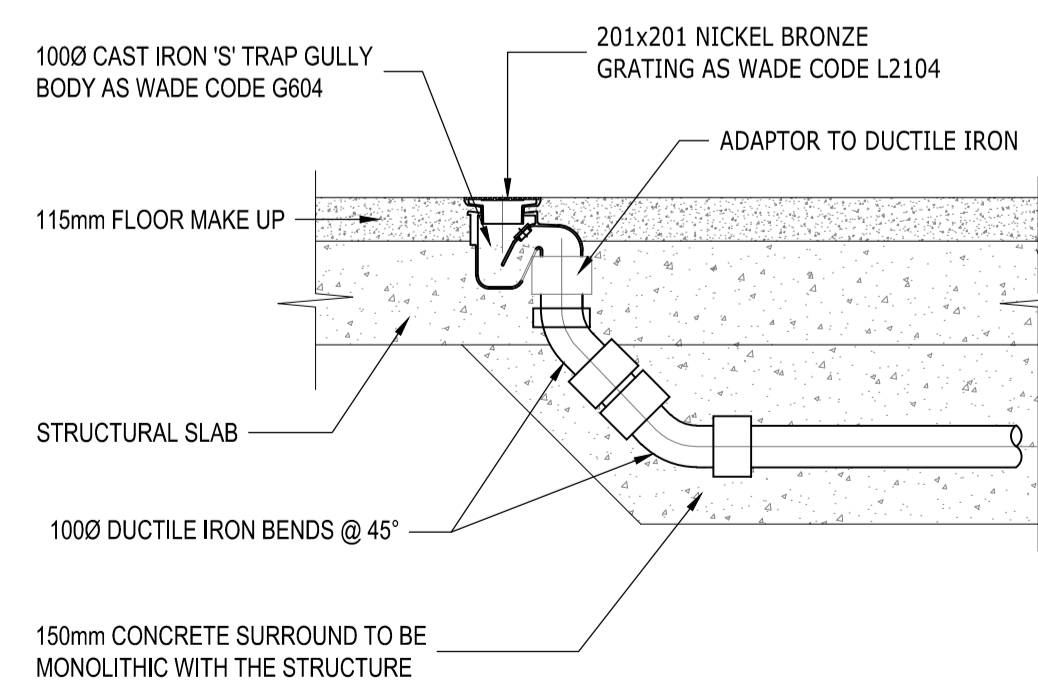


DETAIL 2
DRAIN WITH CONCRETE SURROUND

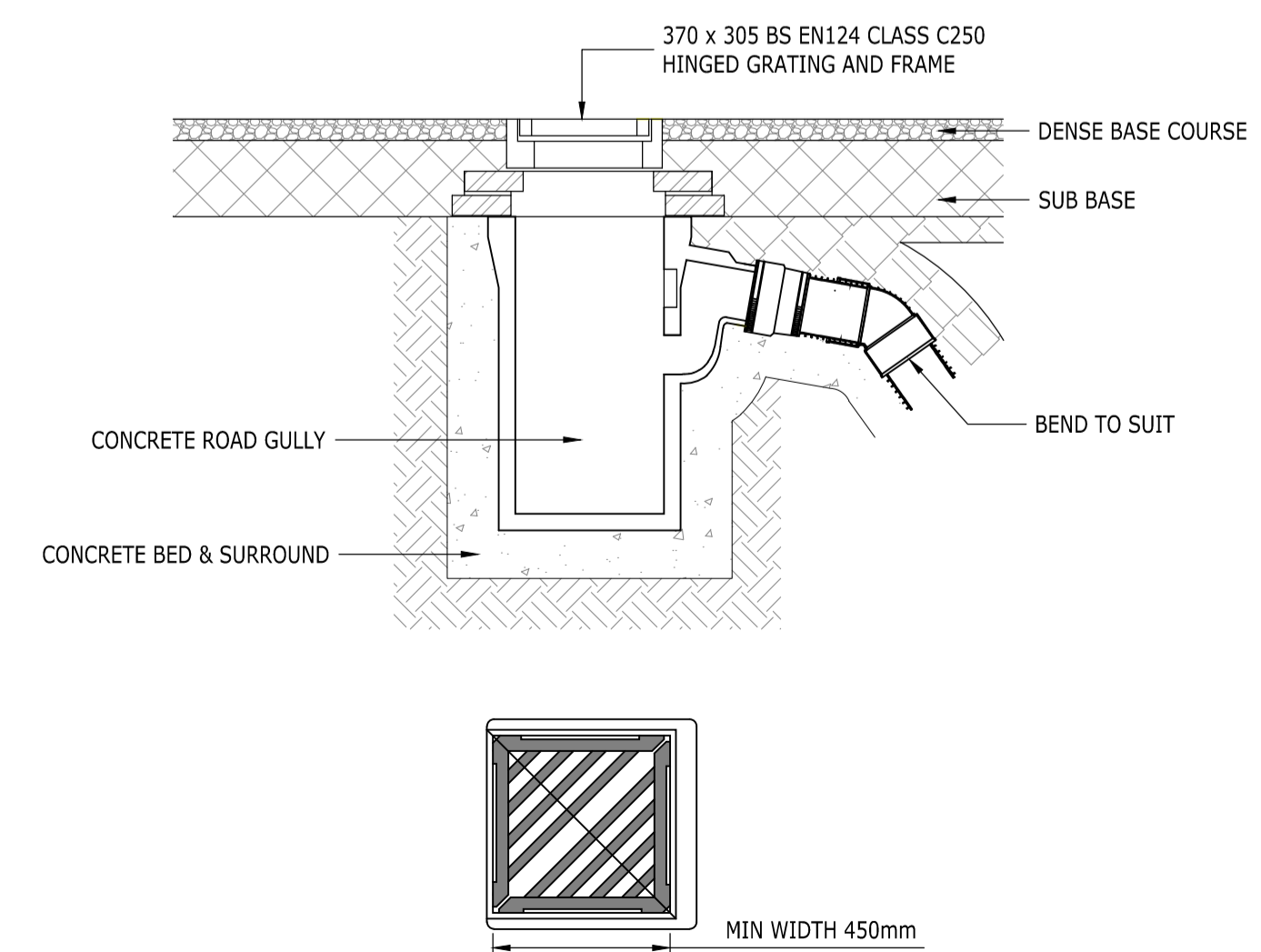
TYPICAL DRAIN POINT



TYPICAL PLANT/SERVICE AREA TRAPPED FLOOR GULLY DETAIL



CONCRETE ROAD GULLY



ROAD GULLY GRATING DETAIL WITH FRAME.
GRATING TYPE AND FRAME TO BE IN ACCORDANCE WITH CYS EN 124

Notes

1. THIS DRAWING IS NOT TO BE SCALED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL AND M&E DRAWINGS.
3. THIS IS NOT AN INSTALLATION DRAWING NOR A CO-ORDINATION DRAWING.
4. INDICATIVE BELOW GROUND DRAINAGE STRATEGY SUBJECT TO FURTHER DESIGN DEVELOPMENT AND COORDINATION.
5. REFER TO DRAWING BBSR-RAMB-CP-XX-DR-C-000110 FOR DRAINAGE LAYOUT.

P01	ISSUED FOR PLANNING	20.08.2021	MES	LS
Rev	Description	Date	By	App

PLANNING

BEGBROOKE SCIENCE PARK SURFACE CAR PARK



tel 020 7631 5291 london@ramboll.co.uk www.ramboll.co.uk

CAR PARK DRAINAGE DETAILS SHEET 2

Project No:	Scale (BA1):	Drawn:	Date:
1620011508	1:1000	MES	AUG 2021
Drawing No:	Rev:		
BBSR-RAMB-CP-XX-DR-C-00411	P01		