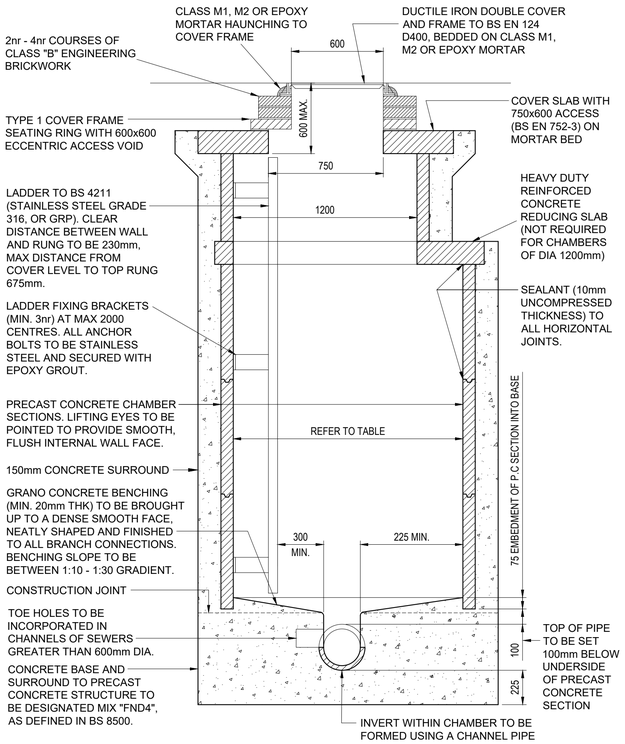
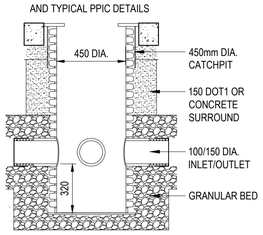
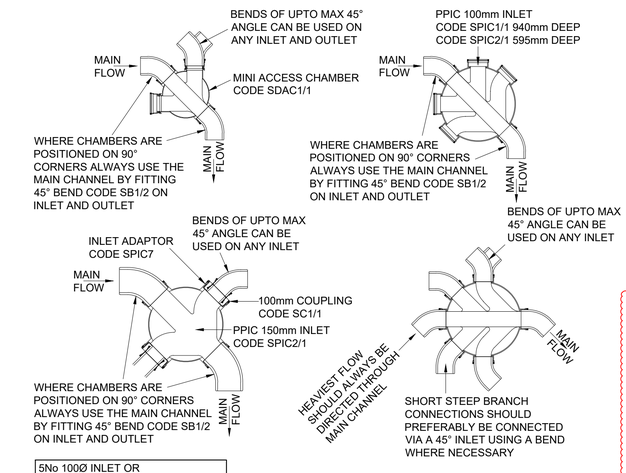


TYPICAL PRECAST CONCRETE MANHOLE - TYPE A

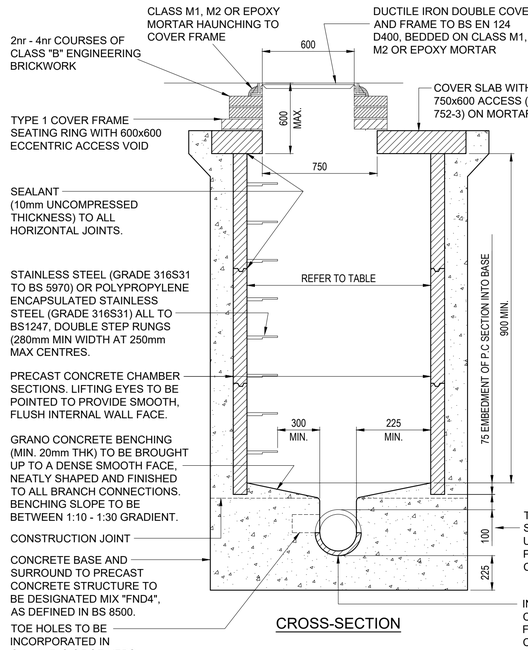
(DEPTH TO SOFFIT 3m - 6m)



450 DIA. CATCHPIT (PPCP)



MINI ACCESS CHAMBER/ PPIC INSTALLATION DETAIL



CROSS-SECTION

TYPICAL PRECAST CONCRETE MANHOLE - TYPE B

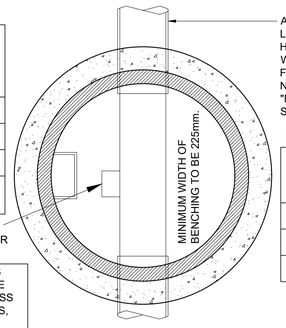
(DEPTH TO SOFFIT LESS THAN 3m)

SHAFT DIAMETERS:

DIA. OF LARGEST PIPE IN CHAMBER (mm)	INTERNAL DIA. OF MANHOLE(mm)
LESS THAN 375	1200
375 - 700	1500
750 - 900	1800
ABOVE 900	CONSULT UNDERTAKER

TOE HOLES TO BE INCORPORATED IN CHANNELS OF SEWERS GREATER THAN 600mm DIA.

CHAMBERS WITH OUTGOING PIPES 600mm DIA OR GREATER ARE TO BE FITTED WITH REMOVABLE STAINLESS STEEL (GRADE 316) SAFETY CHAINS, OR POLYPROPYLENE ROPE.

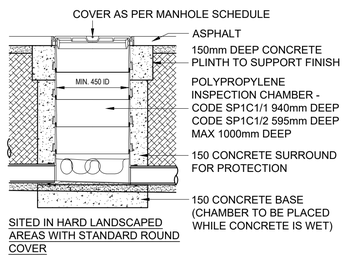


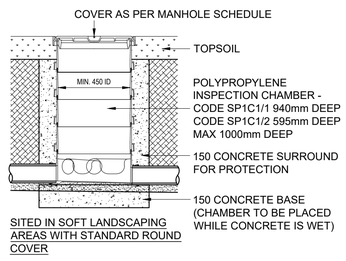
ALL PIPES ENTERING AND LEAVING MANHOLES ARE TO HAVE A FLEXIBLE JOINT WITHIN 600mm OF THE INSIDE FACE OF THE MANHOLE. THE NEXT PIPE IS BE A SHORT "ROCKER" PIPE OF LENGTH AS SHOWN IN THE TABLE BELOW:

ROCKER PIPES:

SEWER DIA. (mm)	ROCKER LENGTH (mm)
150 - 600	600
675 - 750	1000
825 AND OVER	1250

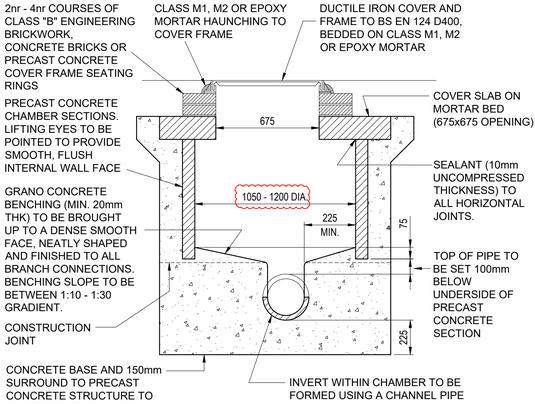
TYPICAL PLAN (TYPE A & B)





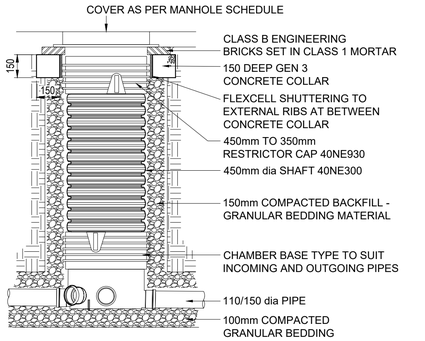
POLYPROPYLENE INSPECTION CHAMBER (PPIC) INSTALLATION DETAILS

DETAILS ABOVE ARE FOR CHAMBERS UPTO 1m DEEP. WHERE DEPTH EXCEEDS 1m, USE WAVIN 450 IC RANGE WITH BED AND SURROUND AS DETAILS ABOVE



TYP. PRECAST CONCRETE MANHOLE - TYPE E

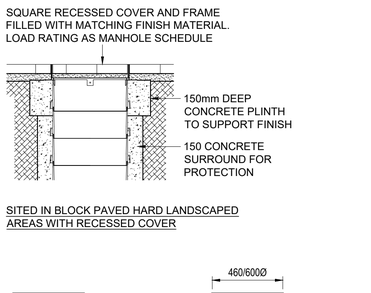
(DEPTH TO SOFFIT LESS THAN 1.5m, MAX. SEWER DIA. 375mm)

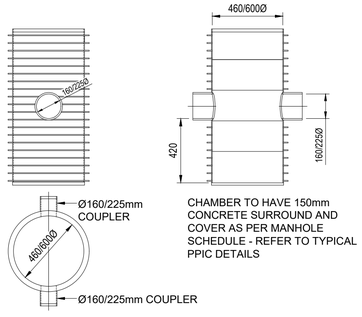


COMPONENT REFERENCES RELATE TO WAVIN PRODUCTS

450 DIA. POLYPROPYLENE INSPECTION CHAMBER (PPIC)

UPTO 3m DP. FOR USE WITH PIPE DIA.s 110 & 150 (uPVC) NON-MAN ENTRY

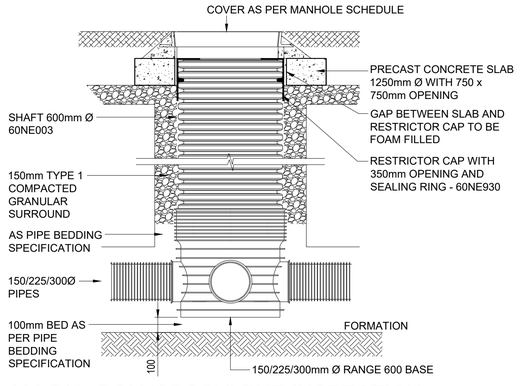




POLYPIPE RIDGISTORMSEPARATE BASIC SILT TRAP

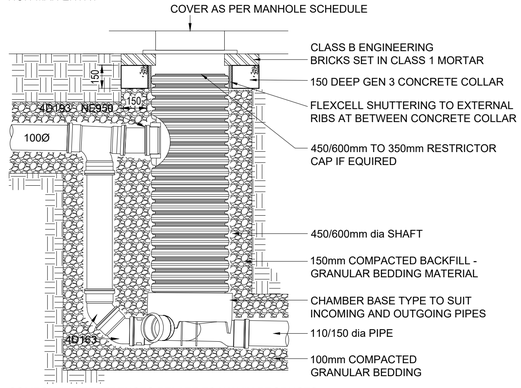
TYP. PRECAST CONCRETE MANHOLE - TYPE F

(CHAMBER FORMING SILT TRAP OR HOUSING FLOW CONTROL SYSTEM)
(DEPTH TO SOFFIT LESS THAN 1.5m, MAX. SEWER DIA. 375mm)



600 DIA. POLYPROPYLENE INSPECTION CHAMBER (PPIC)

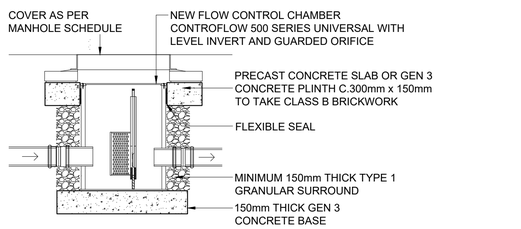
UP TO 3m DEEP FOR USE WITH PIPE DIAMETERS 150, 225 & 300 (CLAY OR ULTRARIB)
NON-MAN ENTRY



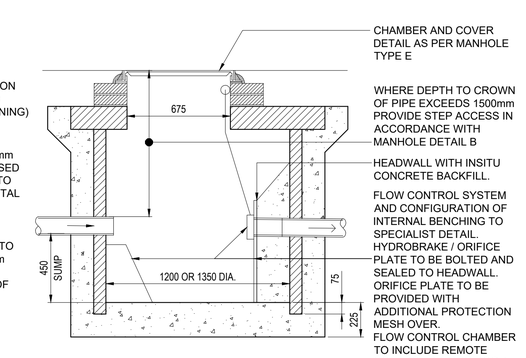
COMPONENT REFERENCES RELATE TO WAVIN PRODUCTS

EXTERNAL BACKDROP TO POLYPROPYLENE INSPECTION CHAMBER

UPTO 3m DEEP FOR USE WITH PIPE DIAMETERS 110 & 150 (uPVC) NON-MAN ENTRY



500 DIA. ORIFICE FLOW CONTROL CHAMBER



NOTES

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GENERAL NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS FOR THE SCHEME.
3. ALL DIMENSIONS SHALL BE CONFIRMED BY THE CONTRACTOR AND ANY DISCREPANCIES BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER AND CONTRACT ADMINISTRATOR PRIOR TO COMMENCEMENT OF THE WORKS OR AS SOON AS THE DISCREPANCY ARISES.

DRAINAGE BEDDING NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATION.
2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING SHALL BE ALLOWED UNLESS PRIOR WRITTEN CONSENT HAS BEEN OBTAINED.
3. ALL PIPES WITH MORE THAN 600mm CROWN COVER SHALL HAVE:
   CLAY & PLASTIC PIPES - CLASS S BEDDING AND SURROUND.
4. ALL PIPES WITH LESS THAN 600mm CROWN COVER SHALL BE GIVEN CLASS Z CONCRETE SURROUND.
5. ALL PIPES LOCATED UNDER GROUND BEARING CONCRETE FLOOR SLABS WITH LESS THAN 300mm CROWN COVER SHALL BE GIVEN CLASS Y CONCRETE SURROUND.
6. ALL PIPES LOCATED UNDER SUSPENDED FLOORS SHALL BE GIVEN CLASS Z CONCRETE SURROUND.
7. BEDDING MATERIALS SHALL COMPLY WITH BS EN 752 AND COMPLY WITH ONE OF THE FOLLOWING:
   NOMINAL SINGLE SIZED AGGREGATE TO TABLE B.15 OF BS EN 1610 AS FOLLOWS:
   DN 100 — 10mm
   DN 150 TO DN 500 — 10mm, 14mm or 20mm
   GREATER THAN DN 500 — 14mm, 20mm or 40mm
   GRADED AGGREGATE TO TABLE B.15 OF BS EN 1610 AS FOLLOWS:
   ALL PIPE SIZES GRADED — 14mm to 5mm or 20mm to 5mm
   GREATER THAN DN 500 — GRADED 40mm to 5mm
8. MOT TYPE 1 AND GRANULAR MATERIAL TYPE 6F2 ARE AS MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS: VOLUME 1 SPECIFICATION FOR HIGHWAY WORKS PUBLISHED BY THE HIGHWAYS AGENCY.
9. IN WATERLOGGED GROUND AND WHERE LAYING PIPES WITHIN FINE GRAINED SOILS PROVIDE A GRANULAR BASE COURSE BENEATH CRADLE AND A TEMPORARY DRAIN IF NECESSARY. GEOTEXTILES MAY BE USED TO CONTAIN BEDDING MATERIAL WHERE APPROPRIATE.
10. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION, CURRENT BRITISH STANDARDS AND BUILDING REGULATIONS AND TO THE SATISFACTION OF THE LOCAL AUTHORITY BUILDING INSPECTOR. ALL DRAINAGE WORKS AND MATERIALS SHALL COMPLY WITH THE WATER AUTHORITY'S 'SEWERS FOR ADOPTION' CURRENT EDITION.
11. CONSTRUCTION AND TESTING OF DRAINS TO BE IN ACCORDANCE WITH BS EN 1610 1998.
12. ALL BRICKWORK CONSTRUCTION IS TO COMPRISE CLASS B ENGINEERING BRICKWORK LAID IN ENGLISH BOND, WITH MORTAR FORMED WITH SULPHATE RESISTING CEMENT.
13. ALL PRECAST MANHOLES TO BE PROVIDED WITH A 150mm INSITU CONCRETE SURROUND (OR GREATER IF REQUIRED BY THE MANUFACTURER) WITH A MIX DESIGN SUITABLE FOR THE GROUND CONDITIONS.
14. ALL MANHOLES TO BE WATERTIGHT.
15. ALL STEPS IN MANHOLES MUST BE CONSTRUCTED IN STAINLESS STEEL TO BS EN 13101.
16. PIPEWORK AND PIPE BEDDING SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS EXCEPT WHERE NOTED OTHERWISE:
    CLAY PIPES AND FITTINGS (UP TO AND INCLUDING 300mm DIA.) - TO BE HIGH STRENGTH (MIN. CRUSHING STRENGTH 40kN/m) VITRIFIED CLAY TO BS EN 295 - HEPWORTH SUPERSLEEVE, OR APPROVED EQUIVALENT - UNLESS NOTED OTHERWISE.
    PLASTIC PIPES AND FITTINGS -
    SURFACE WATER - POLYPIPE RIDGIDRAIN 100-600mm DIA.
    FOUL WATER - POLYPIPE SOLID 100mm DIA. TO BS EN 1401.
    - POLYPIPE POLYSEWER 150 - 300mm DIA. TO BS EN 13476.

Rev.	Details	Author & Date	Checked & Date	Approv'd & Date
C03	A4. MAC details removed. Revised as doudted.	NWF 20.03.26	PS 20.03.26	AJ 20.03.26
C02	A4. Stage 5 issue.	NWF 27.02.26	PS 27.02.26	AJ 27.02.26
C01	A4. Accepted in RIBA Stage 4 as complete by the DfE	NWF 21.11.25	AJ 21.11.25	AJ 21.11.25
P05	S4. Stage 4 issue. Type E chamber detail updated to include 900mm dia.	NWF 09.07.25	AJ 09.07.25	AJ 09.07.25
P04	S3. PPCP detail added.	NWF 25.03.25	PS 25.03.25	AJ 25.03.25
P03	Status S3. Manhole type A added.	NWF 11.03.25	PS 11.03.25	AJ 11.03.25
P02	Status S3. Issued for Stage 3 review.	NWF 27.02.25	AJ 27.02.25	SD 27.02.25
P01	First Issue	NWF 22.01.25	AJ 22.01.25	SD 22.01.25

KIER

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Scale: 1:20	Original Size: A1 — RIBA Stage: Stage 5
Date of First Issue: 22.01.25	Author: NWF — Checked: AJ — Approved: SD
Drawing Number: SRP1140-DBS-00-ZZ-D-S-2250	Status: A4 — Rev.: C03

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