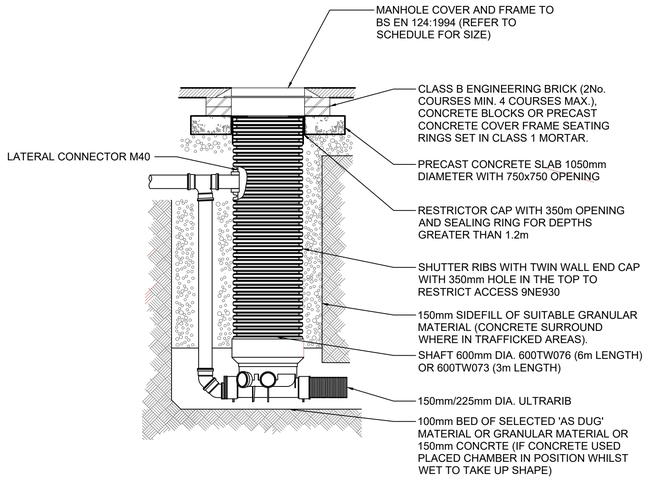
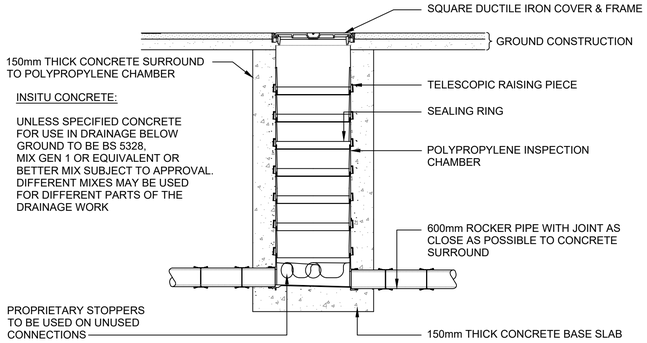


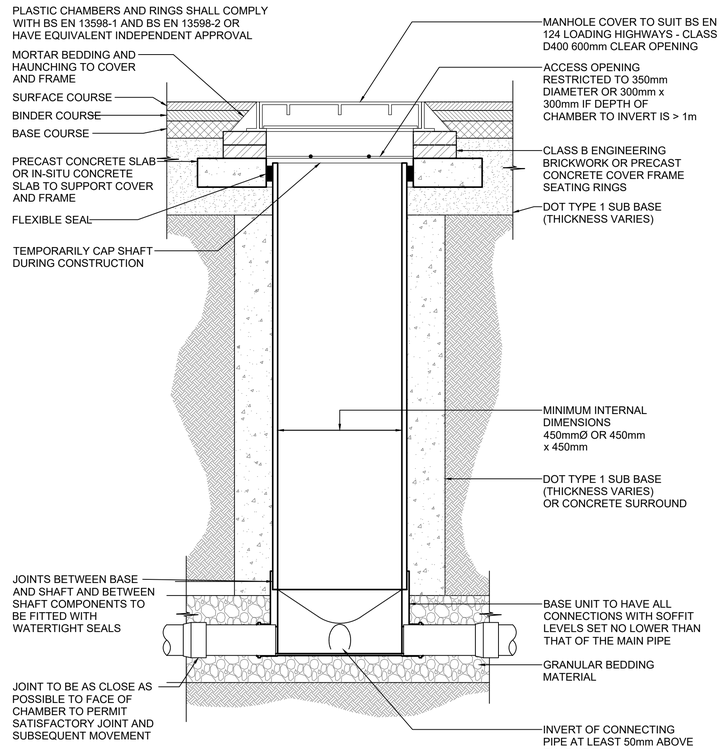
TYPICAL BACK DROP DETAIL TO FOUL PPIC

SCALE 1:25



TYPICAL PPIC DEPTHS COVER TO INVERT BETWEEN 1.2m & 3.0m

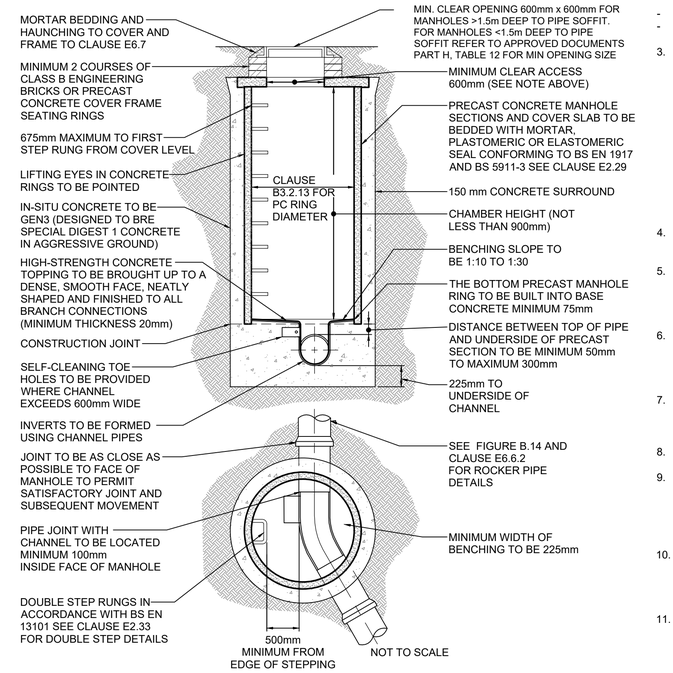
SCALE 1:20



TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3 (FLEXIBLE MATERIAL DETAIL)

MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE IN AREAS SUBJECT TO VEHICLE LOADING 3 M, NON-ENTRY

(NTS)



TYPICAL MANHOLE DETAIL - TYPE 2

Maximum depth from cover level to soffit of pipe 3.0 m

(NTS)

NOTES:

1. TO BE READ IN CONJUNCTION WITH ALL RELEVANT KENNEDY REDFORD DRAWINGS.
2. PROPOSED PIPEWORK WITH LESS THAN THE FOLLOWING DEPTHS TO SOFFIT REQUIRES A CONCRETE SURROUND:
   - 1.2m IN ROADS
   - 0.6m UNDER FOOTPATHS AND UNDER BUILDINGS.
3. MANHOLE COVERS AND FRAMES SHALL BE TO BS EN 124 AND SHALL BE KITEMARKED. COVERS AND FRAMES SHALL BE HEAVY DUTY D400 IN CARRIAGEWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTWAYS AND SOFT LANDSCAPING. IN BLOCK/CONCRETE PAVED AREAS COVERS SHALL BE RECESSED FABRICATED STEEL. ALL RECESSED COVERS SHALL BE FACTA D IN CARRIAGEWAYS AND VEHICULAR AREAS AND FACTA B IN FOOTWAYS IN ACCORDANCE WITH THE FACTA ASSOCIATION GRADINGS.
4. COVER LEVELS ARE TO BE ADJUSTED LOCALLY TO SUIT FINISHED GROUND LEVELS.
5. WHERE POSSIBLE RECESSED COVERS IN BLOCK PAVED AREAS TO HAVE COVER & FRAME ORIENTATED 'SQUARE' WITH PAVING TO MINIMISE CUT SLABS OR BLOCKS.
6. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124, HAVE MINIMUM 600 X 600 CLEAR OPENINGS WITH 150 DEEP FRAMES UNLESS OTHERWISE SPECIFIED.
7. PIPE CONNECTIONS NOT TO INSPECTION CHAMBERS SHALL BE VIA PREFORMED OBLIQUE JUNCTIONS SWEPT IN THE DIRECTION OF FLOW.
8. ALL BENDS IN PIPEWORK SHALL BE LONG RADIUS.
9. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORKS.
10. RECYCLED MATERIAL MAY BE USED AS REPLACEMENT BACKFILL MATERIAL, PROVIDED IT IS SUITABLY SCREENED, GRADED AND CRUSHED, TO SHW SERIES 600.
11. SELECTED BACKFILL AS DUG MATERIAL FREE FROM VEGETABLE MATTER, RUBBISH, FROZEN SOIL & MATERIAL RETAINED O N40mm SIEVE. TO BE COMPACTED IN 100mm LAYERS BY HAND.
12. POLLUTION CONTROL BARRIERS PROPOSED IN LINE WITH IDOM'S RECOMMENDATIONS.
13. POLLUTION CONTROL BARRIERS TO BE INSTALLED TO MANUFACTURERS' SPECIFICATION AND RECOMMENDATION.
14. ALL INTERNAL INSPECTION CHAMBERS TO BE RECESSED, DOUBLE SEALED WITH SCREW DOWN COVERS.

NOTE *
150mm OR 1/4 OF THE O.D. (OUTSIDE DIAMETER) WHICH EVER IS GREATER.
FOR CONCRETE PIPEWORK 200mm OR 1/4 OF O.D. WHICH EVER IS GREATER.

R12:270 BACKFILLING TO PIPELINES GENERALLY:
UNLESS SPECIFIED OTHERWISE, BACKFILL FROM TOP OF SPECIFIED SURROUND OR PROTECTIVE CUSHION WITH MATERIAL EXCAVATED FROM THE TRENCH, COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK. DO NOT USE HEAVY COMPACTORS BEFORE THERE IS 600mm OF MATERIAL OVER PIPES.

R12:280 BACKFILLING UNDER ROADS, PAVINGS & BUILDING FOOTPRINT:
BACKFILL FROM TOP OF SPECIFIED SURROUND OR PROTECTIVE CUSHION UP TO FORMATION LEVEL WITH GRANULAR SUB BASE MATERIAL TYPE 1 TO DOT SPECIFICATION FOR HIGHWAYS WORKS, CLAUSE 803, LAID AND COMPACTED IN 150mm LAYERS.

R12:370 CLASS S GRANULAR SURROUND
LOWER PART OF TRENCH WIDTH TO BE AS CLAUSE 667 GRANULAR MATERIAL:NATURAL

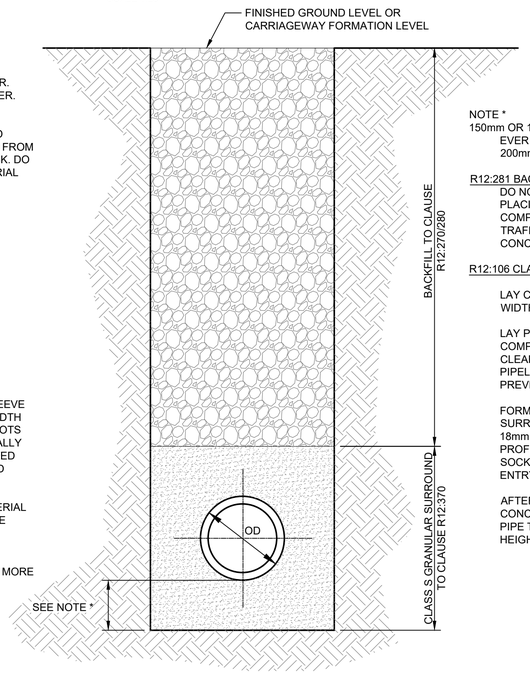
PIPE SIZES DN 100 & DN 150: SIZE 4/10.
PIPE SIZES DN 225 & DN 300: SIZE 4/10, 10/20 OR 4/20.
PIPE SIZES DN 375-500: SIZE 10/20 OR 4/20.
PIPE SIZES DN 600 AND ABOVE: SIZE 10/20, 20/40, 4/20 OR 4/40.

LAY AND COMPACT TO A THICKNESS NOT LESS THAN 50mm FOR SLEEVE JOINTED PIPES, 100mm FOR SOCKET JOINTED PIPES, OVER FULL WIDTH OF TRENCH, WHERE TRENCH BOTTOM IS UNEVEN DUE TO HARD SPOTS OR OTHER REASON, INCREASE DEPTH BY 100mm. SCOOP OUT LOCALLY AT COUPLINGS/SOCKETS AND LAY PIPES DIGGING SLIGHTLY INTO BED AND RESTING UNIFORMLY ON THEIR BARRELS. ADJUST TO LINE AND GRADIENT.

AFTER INITIAL TESTING, LAY AND COMPACT MORE GRANULAR MATERIAL IN 100MM LAYERS TO 150mm (250mm FOR ADOPTED SEWERS) ABOVE CROWN OF PIPE.

LOWER PART OF TRENCH:
WHERE BEDDING CLASS S IS SPECIFIED TRENCH WIDTH TO BE NOT MORE THAN THE FOLLOWING, REGARDLESS OF DEPTH OF COVER:

Nominal Pipe Size (DN)	100	150	225	300
Max. Trench Width (mm)	600	700	800	900



BEDDING CLASS S

SCALE 1:10

NOTE *
150mm OR 1/4 OF THE O.D. (OUTSIDE DIAMETER) WHICH EVER IS GREATER. FOR CONCRETE PIPEWORK 200mm OR 1/4 OF O.D. WHICH EVER IS GREATER.

R12:281 BACKFILLING OVER CONCRETE
DO NOT START BACKFILLING WITHIN 24 HOURS OF PLACING CONCRETE. DO NOT USE HEAVY COMPACTORS AND PREVENT IMPOSITION OF TRAFFIC LOADS WITHIN 72 HOURS OF PLACING CONCRETE.

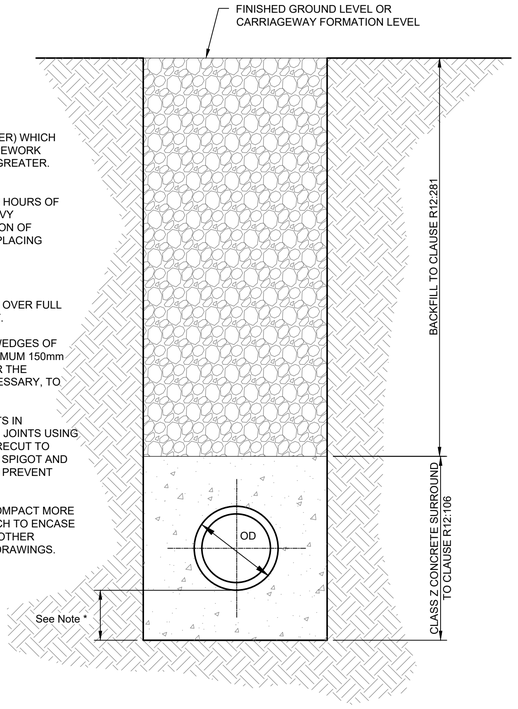
R12:106 CLASS Z CONCRETE SURROUND

LAY CONCRETE BLINDING, 25mm THICK OVER FULL WIDTH OF TRENCH AND ALLOW TO SET.

LAY PIPES ON BLINDING ON FOLDING WEDGES OF COMPRESSIBLE BOARD TO GIVE A MINIMUM 150mm CLEARANCE UNDER THE PIPE. ANCHOR THE PIPELINE OR FILL WITH WATER, IF NECESSARY, TO PREVENT FLOTATION.

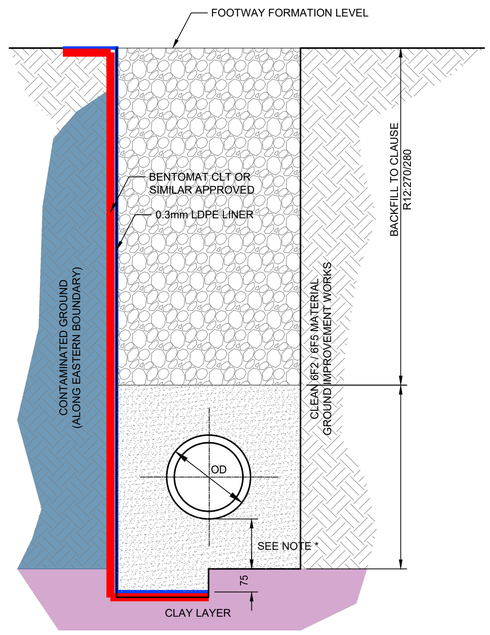
FORM VERTICAL CONSTRUCTION JOINTS IN SURROUND AT FACE OF FLEXIBLE PIPE JOINTS USING 18mm THICK COMPRESSIBLE BOARD PRECUT TO PROFILE PIPE. FILL ANY GAP BETWEEN SPIGOT AND SOCKET WITH RESILIENT MATERIAL TO PREVENT ENTRY TO CONCRETE.

AFTER INITIAL TESTING, PLACE AND COMPACT MORE CONCRETE FOR FULL WIDTH OF TRENCH TO ENCASE PIPE TO 150mm ABOVE CROWN OR TO OTHER HEIGHT AS SPECIFIED OR SHOWN ON DRAWINGS.



BEDDING CLASS Z

SCALE 1:10



POLLUTION CONTROL TRENCH LINING DETAIL

SCALE 1:10

REV	DATE	DESCRIPTION	DRN	CHK	APR
FC	10.09.24	FINAL CONSTRUCTION	A.W	R.B	P.V
C05	26.07.24	INTERNAL IC NOTE ADDED	M.M	P.V	R.B
C04	02.07.24	BACKDROP DETAIL UPDATED	M.M	P.V	R.B
C03	15.02.24	BACKDROP DETAIL ADDED	M.M	P.V	R.B
C02	30.08.23	POLLUTION CONTROL DETAIL ADDED	M.M	P.V	R.B
C01	27.06.23	CONSTRUCTION ISSUE	M.M	P.V	R.B
P03	03.04.23	STAGE 4 DESIGN ISSUE	M.M	P.V	R.B
P02	09.03.23	DRAWING NO. UPDATED AS PER B&K REQUIREMENTS. NEW DETAILS ADDED.	M.M	P.V	R.B
P01	23.11.22	STAGE 3 ISSUE	M.M	R.B	P.V

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Kennedy Redford MANAGING VISION

CLIENT

BOWMER KIRKLAND

PROJECT NAME

ANCOATS MOBILITY HUB

DRAWING TITLE

DRAINAGE DETAILS - SHEET 1

DATE	SCALE	SHEET SIZE	REV
23.11.22	AS SHOWN	A1	FC

DRAWING STATUS

FC - FINAL CONSTRUCTION

DRAWING NUMBER

45306 - KRD - XX - ZZ - DR - C - 5231