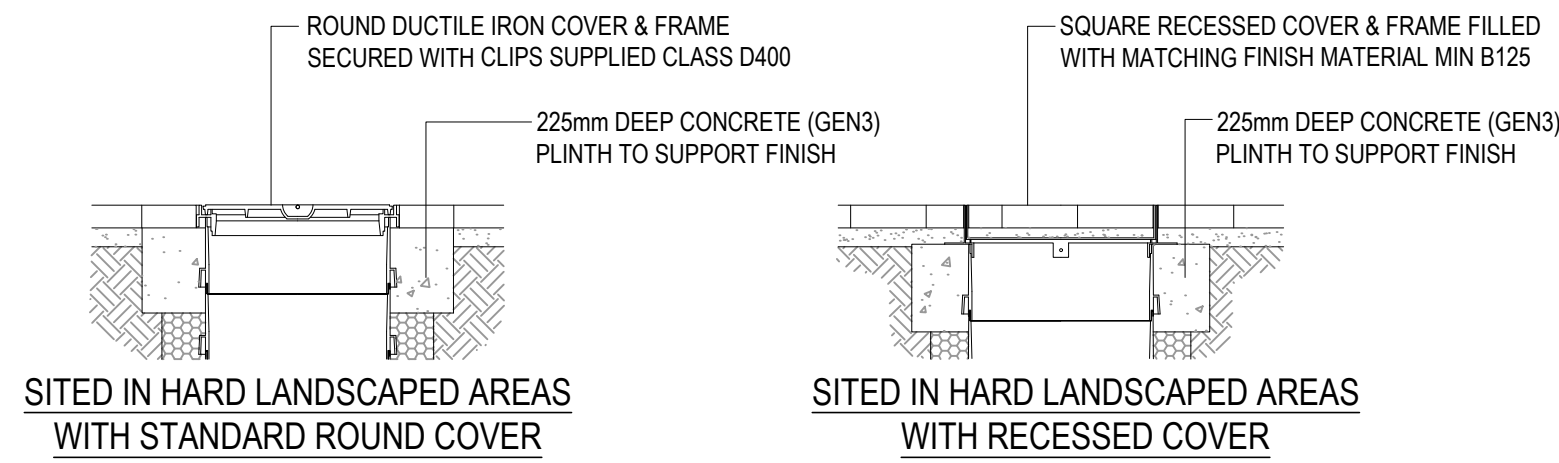
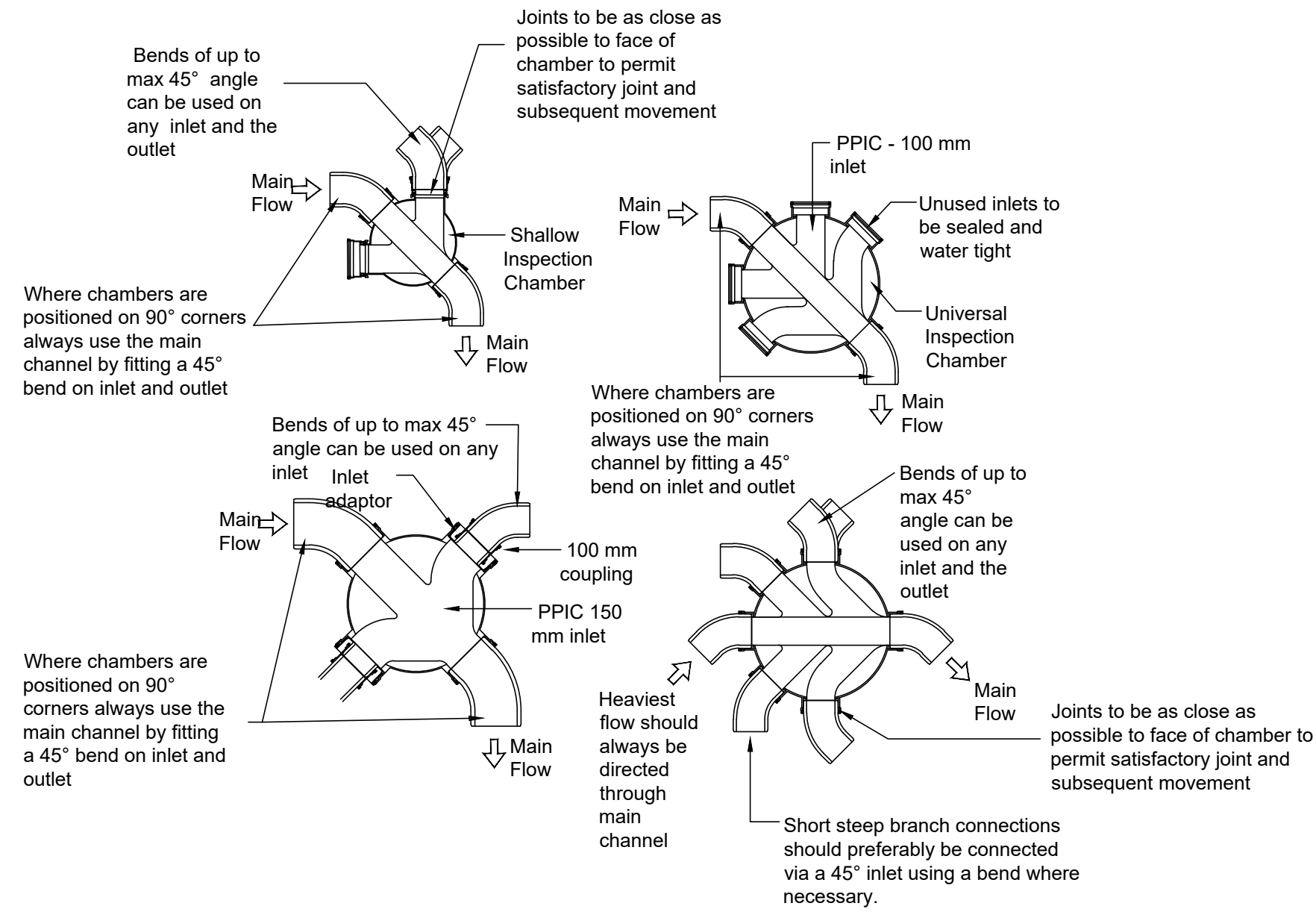
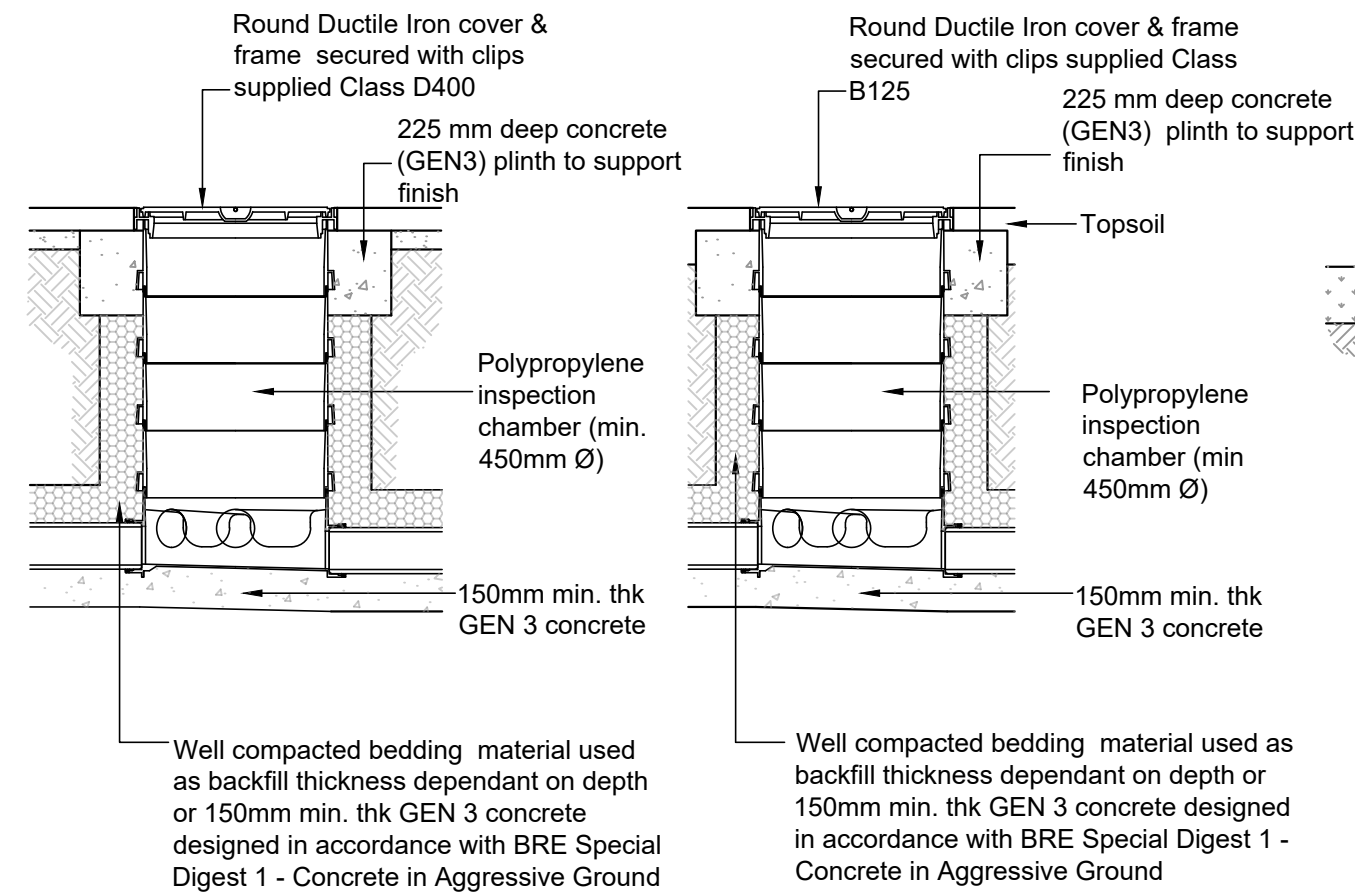




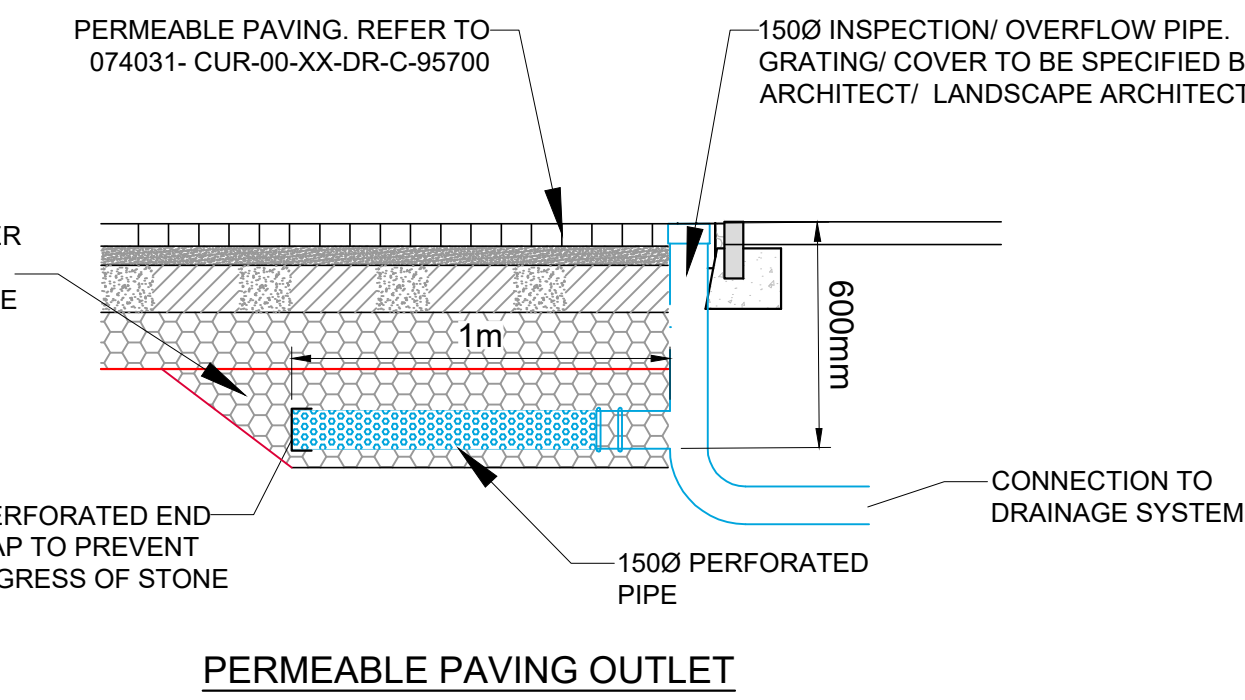
TYPICAL INSPECTION CHAMBER COVER DETAILS



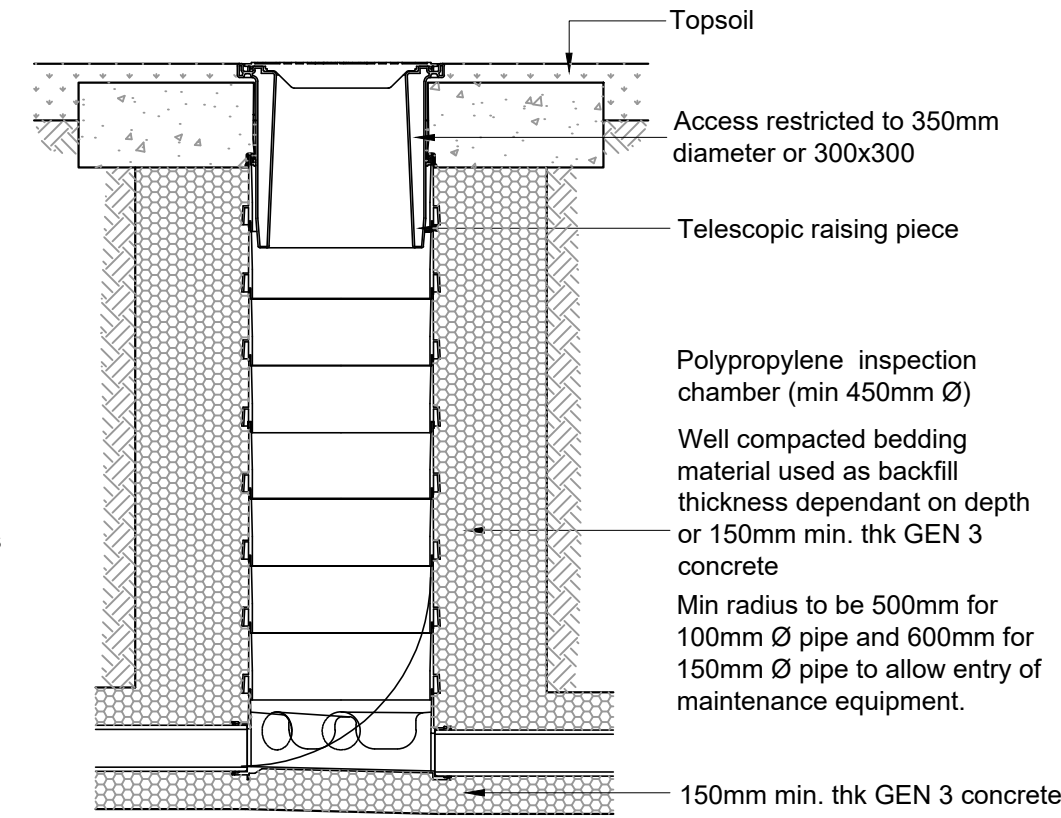
INSPECTION CHAMBER BASE DETAILS
(SCALE 1:20)



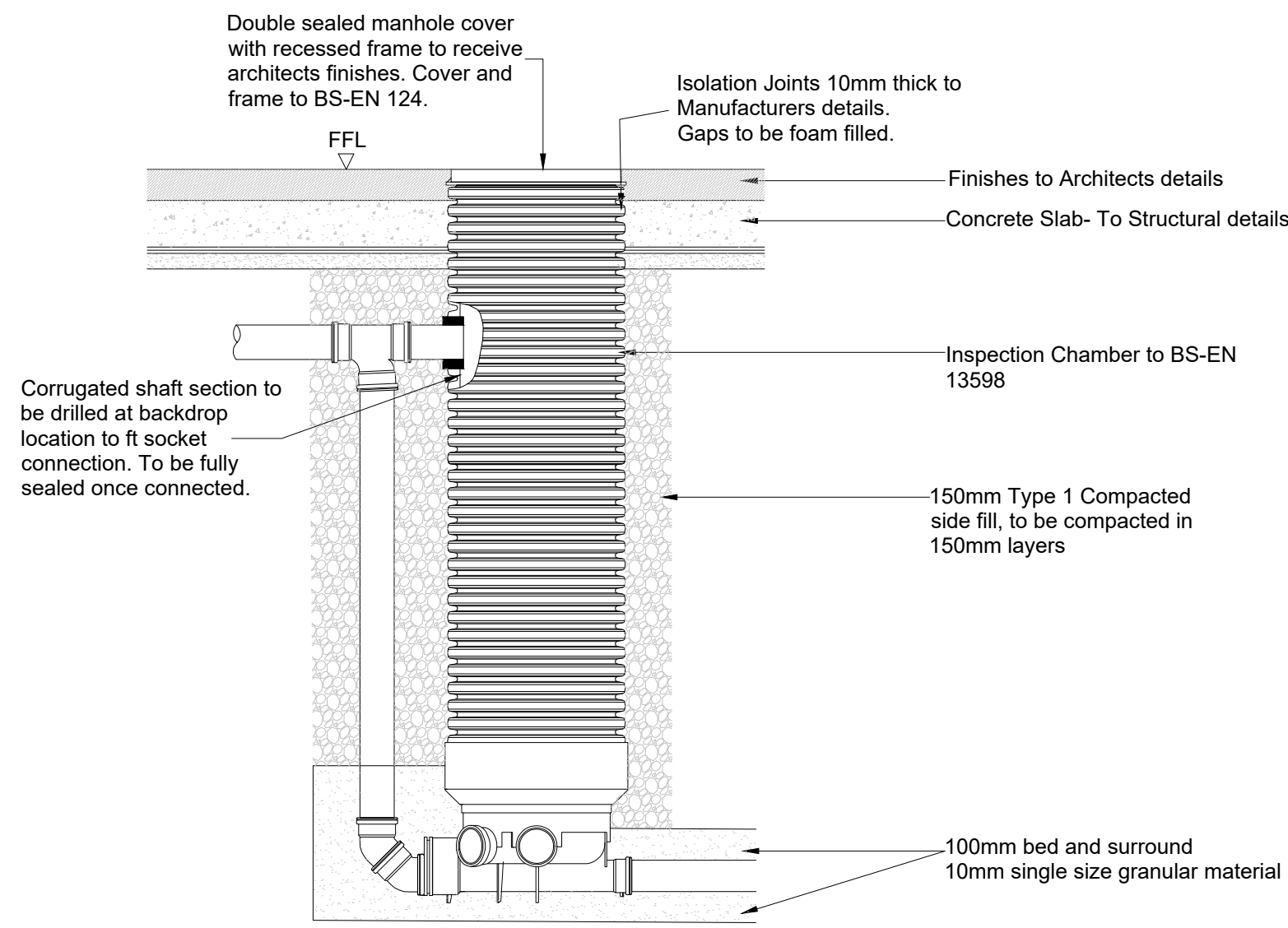
TYPICAL INSPECTION CHAMBER (IC) DETAIL
MAX DEPTH 1.2m



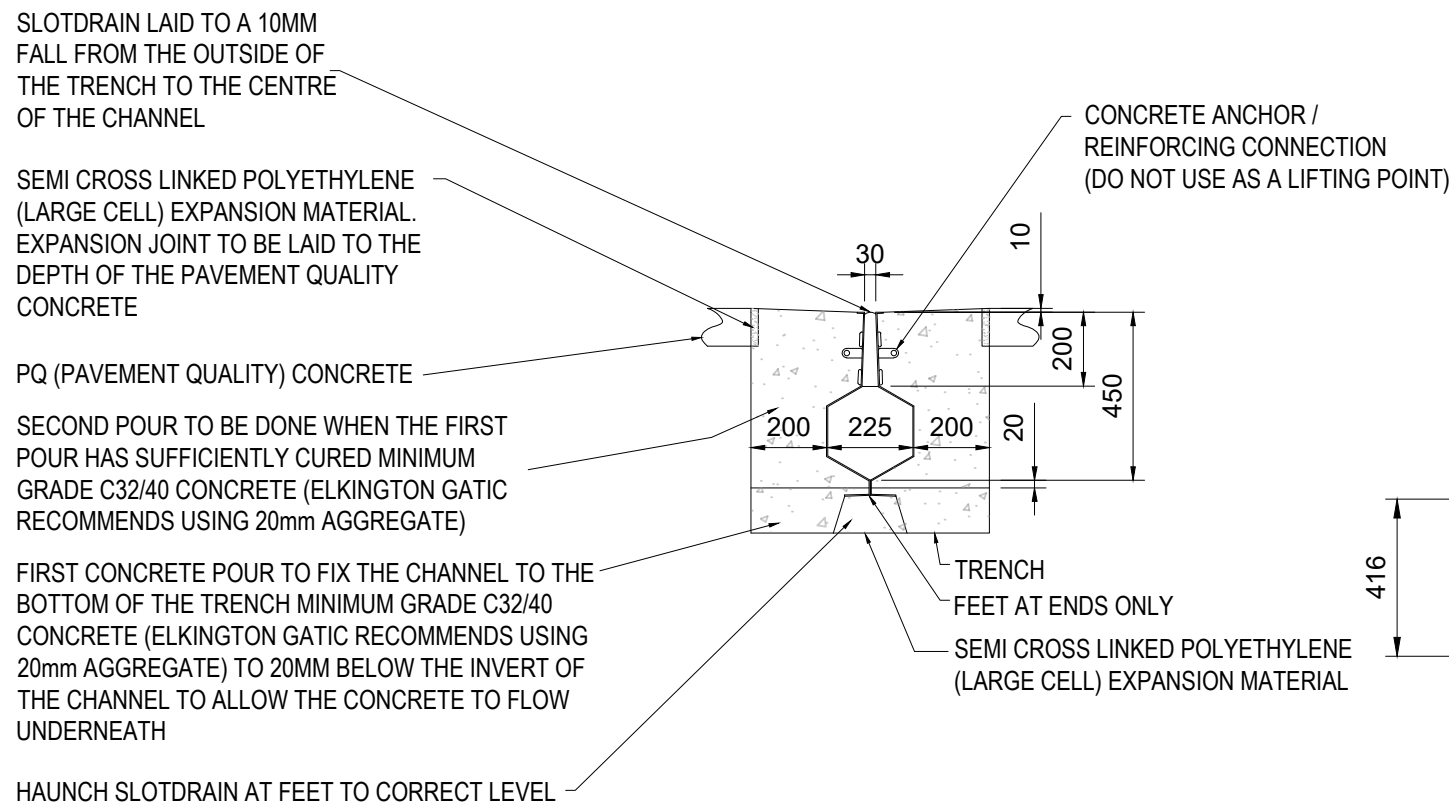
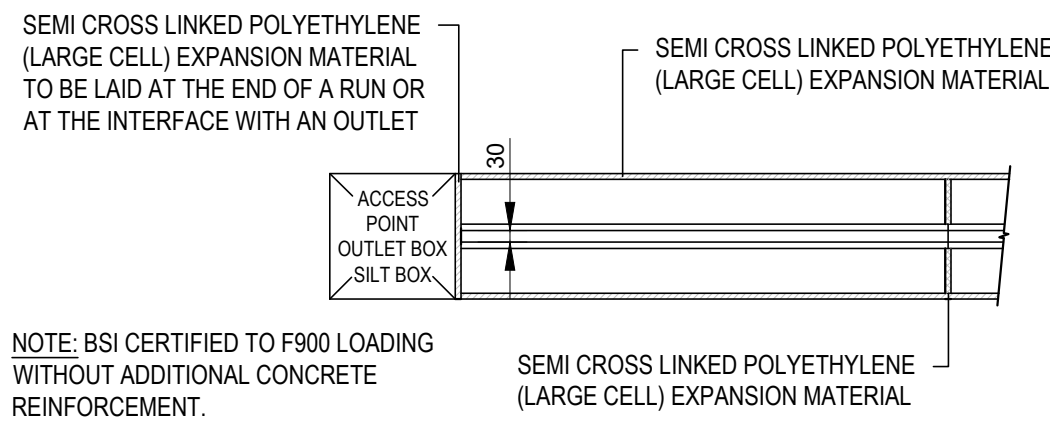
PERMEABLE PAVING OUTLET



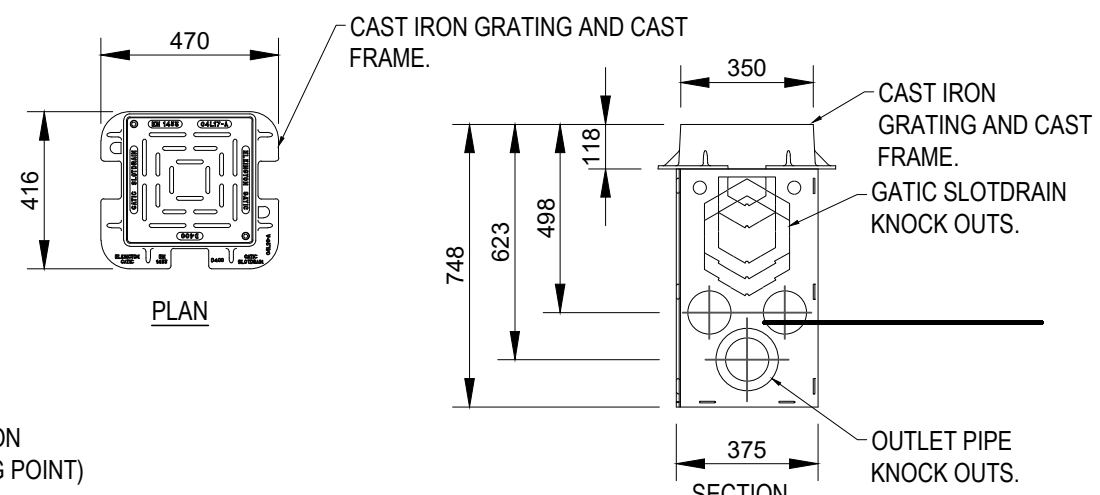
TELESCOPIC IC SITED IN SOFT LANDSCAPED AREAS
DEEP INSPECTION CHAMBER (IC) DETAIL
DEPTHS BETWEEN 1.2m AND 3.0m
(SCALE 1:20)



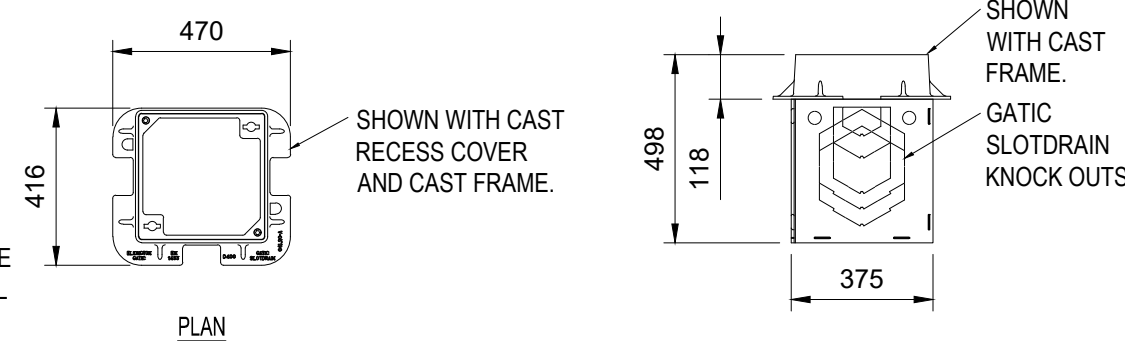
TYPICAL INTERNAL INSPECTION CHAMBER BACKDROP DETAIL



GATIC SLOT DRAIN CASTSLOT CONCRETE INSTALLATION



GATIC SLOT DRAIN 350mm OUTLET UNIT
SECTION AND PLAN DETAILS
NTS



350 ACCESS BOX
SECTION AND PLAN DETAILS
NTS

- UNLESS NOTED OTHERWISE, ALL MORTAR TO BE CLASS 1 (1:3 CEMENT:SAND).
 - LIMESTONE PIPE BEDDING WILL NOT BE PERMITTED IN ACIDIC GROUNDWATER CONDITIONS. REFER TO CONTRACT SPECIFICATION FOR SPECIFIC DETAILS.
 - CUT ENDS OF ANY REINFORCED CONCRETE PIPES ARE TO BE TREATED WITH EPOXY RESIN PAINT/MORTAR.
 - CONSTRUCTION JOINTS IN CONCRETE SURROUND MUST NOT BE WITHIN 150MM OF CHAMBER RING JOINTS.
 - FLEXIBLE JOINTS SHALL BE PROVIDED AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF ANY STRUCTURE INTO WHICH IT IS BUILT. (SEE TABLE BELOW).
- | PIPE DIAMETER (mm) | MAX DIM "A" (mm) | MAX DIM "B" (mm) |
|--------------------|------------------|------------------|
| 150 | 150 | 500-750 |
| 225-450 | DIA | 500-750 |
| 525-600 | DIA | < 1000 |
- IN CLAY, SOIL, PIPE TRENCHES ARE TO BE BACKFILLED WITH CLEAN GRANULAR HARDWARE 75MM DOWN.
 - CONNECTIONS INTO MANHOLES SHALL BE CONSTRUCTED AT SOFFIT LEVEL, UNLESS DETAILED DIFFERENTLY ON CONSTRUCTION DRAWINGS.
 - SUITABLE MATERIAL/SELECTED FILL SHOULD BE READILY COMPACTABLE, FREE FROM TIMBER, FROZEN MATERIAL, VEGETATION AND FOREIGN MATTER. IT SHOULD EXCLUDE ANY LUMPS OF CLAY RETAINED ON A 100MM SIEVE AND STONES RETAINED ON A 40MM SIEVE.
 - CONCRETE BENCHING AND PIPE SURROUND SHALL BE PLACED IN A SINGLE CONTINUOUS OPERATION FROM THE TOP OF THE BASE SLAB TO TOP OF BENCHING AND PIPE SURROUND.
 - PCC COVER SLABS AND MANHOLE RINGS TO BE MANUFACTURED TO BS-EN 1917 AND BS 5911:3 AND KITEMARKED.
 - PCC COVER SLABS TO HAVE 600X750MM CLEAR OPENING UNLESS STATED OTHERWISE WITHIN THIS SCHEDULE AND BE MANUFACTURED TO BS-EN 1917 AND BS 5911:3.
 - CORBEL SEATING UNITS TO BE MANUFACTURED TO BS-EN 1917 AND BS 5911:3 TO BE USED ECCENTRIC OVER SLAB OPENING TO REDUCE FRO. 600X600MM OPENING IN IRONWORK TO 600X750MM OPENING IN COVER SLAB WHERE APPLICABLE.
 - ALL CONCRETE PIPEWORK TO BE MANUFACTURED TO BS-EN 1916 AND BS 5911:1 AND STRENGTH CLASS 120 AND KITEMARKED.
 - ALL CLAY PIPEWORK SHALL BE EXTRA STRENGTH CLAYWARE TO BS 295 AND BS 65 (SW PIPES ONLY).
 - THE CONTRACTOR MAY ELECT TO USE REINFORCES UPVC PIPES COVERED BY BS-EN 1401:1 FOR DIAMETERS UP TO AND INCLUDING 300MM.

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- ALL DIMENSIONS ARE IN MILLIMETRES.
- ALL ADAPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING PUBLIC SEWERS TO BE UNDERTAKEN IN ACCORDANCE WITH 'SEWERS FOR ADOPTION 7th EDITION' AND 'CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION' AND CONSTRUCTED TO THE RELEVANT STATUTORY UNDERTAKERS DETAILS.
- ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH 'CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION', BS EN 752 2008 'DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS' AND THE BUILDING REGULATIONS APPROVED 'DOCUMENT H'.
- THE SIZES OF MANHOLES STATED ARE MINIMUM. IF TWO OR MORE PIPES ENTER THE MANHOLE, THE CHAMBER SIZE MUST BE SUFFICIENT TO ACCOMMODATE THE ADEQUATE BENCHING WIDTHS. ALL PIPES BUILT INTO THE MANHOLE INVERT SHOULD BE INSTALLED WITH SOFFITS LEVEL.
- THE CONTRACTOR SHALL GIVE AT LEAST ONE WORKING DAYS NOTICE TO THE ENGINEER TO ALLOW OPPORTUNITY TO EXAMINE ANY FORMATION OR ANY WITNESS TESTING.
- ALL SOFT SPOTS TO BE REMOVED FROM THE BOTTOM OF EXCAVATIONS AND TO BE REFILLED TO FORMATION LEVEL WITH THE SAME MATERIAL AS PERMANENT WORKS WHICH REST IN IT.
- ALL CONCRETE AND CONCRETE PRODUCTS SHALL SATISFY THE SULPHATE CLASSIFICATION ADVISED IN THE SITE INVESTIGATION (BS-EN 206 STATES PORTLAND LIMESTONE CEMENT IS NOT PERMITTED). ALL CONCRETE GRADES STATED ON THIS DRAWING ARE THE MINIMUM STRENGTH REQUIREMENTS. THEY MUST BE CAPABLE OF RESISTING THE REQUIRED SULPHATE CLASSIFICATION.
- MANHOLE COVER CLASSIFICATION TO BE IN ACCORDANCE WITH BS-EN 124 AS SHOWN IN THE TABLE BELOW.

COVER TYPES TO EN124		
CLASS	LOAD (T)	APPLICATIONS
A	1.5	PEDESTRIAN ONLY AREAS
B	12.5	CAR PARKS
C	25	SERVICE ROADS NOT EXTENDING MORE THAN 500mm FROM KERB FACE INTO THE CARRIAGEWAY.
D	40	ROADS, LOADING AREAS AND CONCRETE HARDSTANDINGS.

COVER SIZES		
TYPE	LENGTH AND WIDTH (mm)	CIRCULAR (mm)
SMALL ACCESS FITTING	150 x 100	150
LARGE ACCESS FITTING	225 x 100	-
INSPECTION CHAMBER	450 x 450	450
MANHOLE FOR TYPE B MANHOLE WITH <1.8m INTERNAL HEIGHT	800 x 600 685 x 1220 MULTIPLE	600

CONCRETE TYPES			
LOCATION	TYPE	MAX AGGREGATE	NOMINAL SLUMP
ALL CONCRETE FOR DRAINAGE	GEN 3	20mm	S3

RATE OF SAMPLING FOR COMPRESSIVE STRENGTH TEST ONE SET OF CUBES PER 20cu m OR 10 BATCHES OF CONCRETE WHICHEVER REPRESENTS THE LESSER VOLUME, BUT NOT LESS THAN ONE FOR EACH DAY OR USE.
A SET OF CUBES IS TO COMPRISE THREE CUBES, ONE FOR TESTINE AT 28 DAYS, ONE FOR TESTING AT 7 DAYS AND A SPARE. THE NUMBER OF SPARE CUBES AND CUBES FOR TESTING AT 7 DAYS MAY BE REDUCED AT THE CONTRACTORS RISK.

CONSTRUCTION RECORD - FINAL CONSTRUCTION
THE INFORMATION IS BASED ON CONFIRMATION FROM THE CONTRACTOR OF THE INSTALLED WORKS. THERE MAY BE VARIATIONS ON SITE WHICH ARE NOT REFLECTED ON THIS DRAWING AND HAS NOT BEEN VERIFIED BY CURTINS.

C02	FINAL CONSTRUCTION	25/01/24	JC	CG
C01	ISSUED FOR CONSTRUCTION	07/11/22	CS	CG
P01	STAGE 3 ISSUE	16/11/20	AH	CD
Rev:	Description:	Date:	By:	Chkd:

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Status:
Project:
Dig Title:

OLDHAM ROAD, NEWTON HEATH

DRAINAGE DETAILS
SHEET 1

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
074031	A1	16/11/20	AH	AH	CD
Scale:	NTS				
Project Code:	Originator:	Zone:	Level:	Type:	Discipline:

074031 - CUR - 00 - XX - DR - C - 92520 -C02