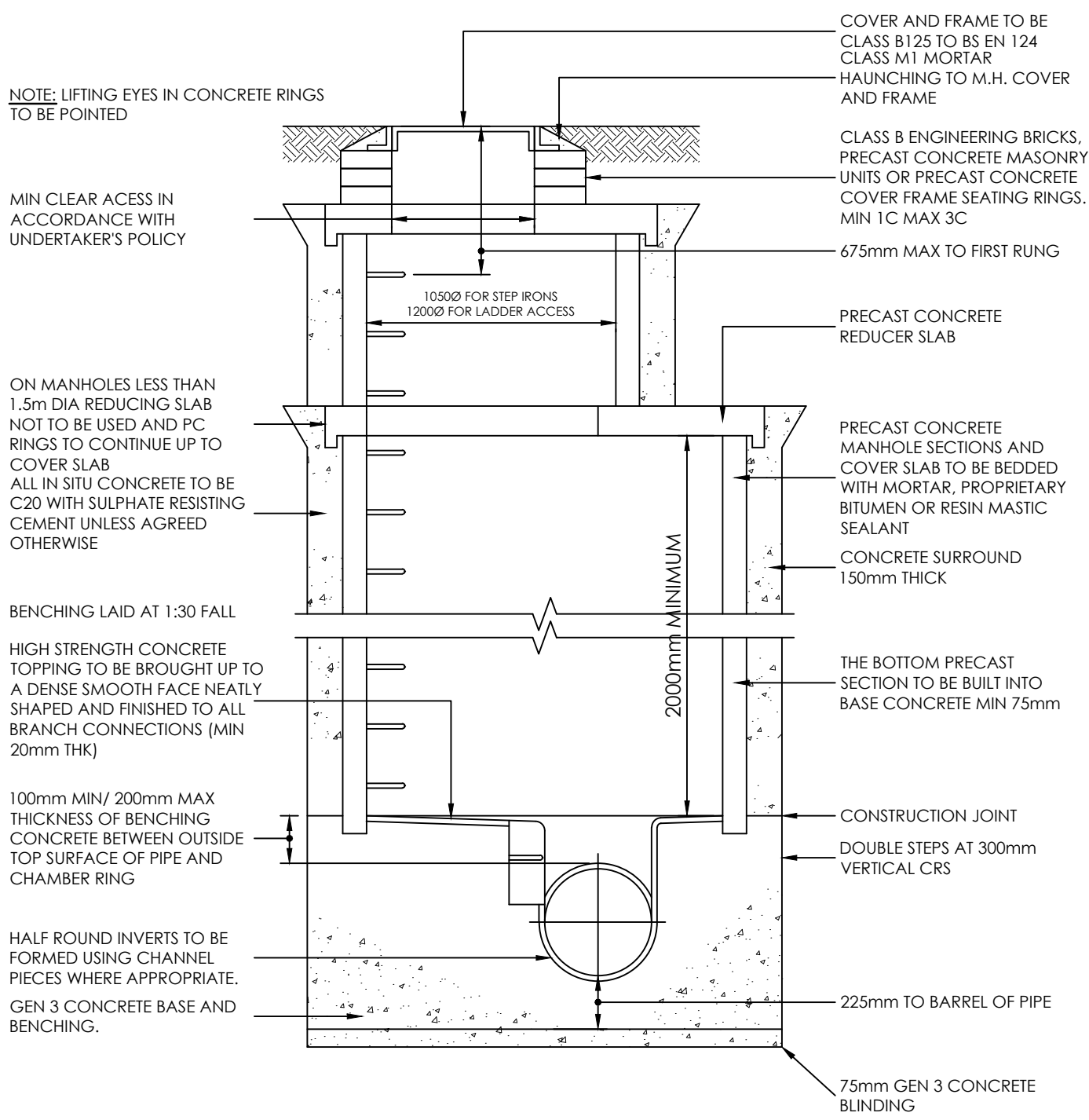




NOTE: LIFTING EYES IN CONCRETE RINGS TO BE POINTED

675mm MAX TO FIRST RUNG

MIN CLEAR ACCESS IN ACCORDANCE WITH UNDERTAKER'S POLICY

ALL IN SITU CONCRETE TO BE C20 WITH SULPHATE RESISTING CEMENT UNLESS AGREED OTHERWISE

STEPS AT 250mm VERT. CENTRES

BENCHING LAID AT 1:30 FALL

HIGH STRENGTH CONCRETE TOPPING TO BE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS (MIN 20mm THK)

100mm MIN/ 200mm MAX THICKNESS OF BENCHING CONCRETE BETWEEN OUTSIDE TOP SURFACE OF PIPE AND CHAMBER RING

HALF ROUND INVERTS TO BE FORMED USING CHANNEL PIECES WHERE APPROPRIATE. GEN 3 CONCRETE BASE AND BENCHING.

COVER AND FRAME TO BE CLASS B125 TO BS EN 124 CLASS M1 MORTAR HAUNCHING TO M.H. COVER AND FRAME

CLASS B ENGINEERING BRICKS, PRECAST CONCRETE MASONRY UNITS OR PRECAST CONCRETE COVER FRAME SEATING RINGS. MIN 1C MAX 3C

PRECAST CONCRETE MANHOLE SECTIONS AND COVER SLAB TO BE BEDDED WITH MORTAR, PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT

CONCRETE SURROUND 150mm THICK

THE BOTTOM PRECAST SECTION TO BE BUILT INTO BASE CONCRETE MIN 75mm

CONSTRUCTION JOINT

DOUBLE STEPS AT 300mm VERTICAL CRS

225mm TO BARREL OF PIPE

75mm GEN 3 CONCRETE BLINDING

NOTE: ROCKER PIPES TO BE USED UNTIL THE OUTSIDE DIAMETER EXCEEDS THE EFFECTIVE LENGTH OF THE ROCKER PIPE.

ROCKER PIPE LENGTH TO BE: 225Ø - 600mmØ : 600mm LG 675Ø - 750mmØ : 750mm LG >750Ø : 1200mm LG

12mm COMPRESSIBLE MATERIAL

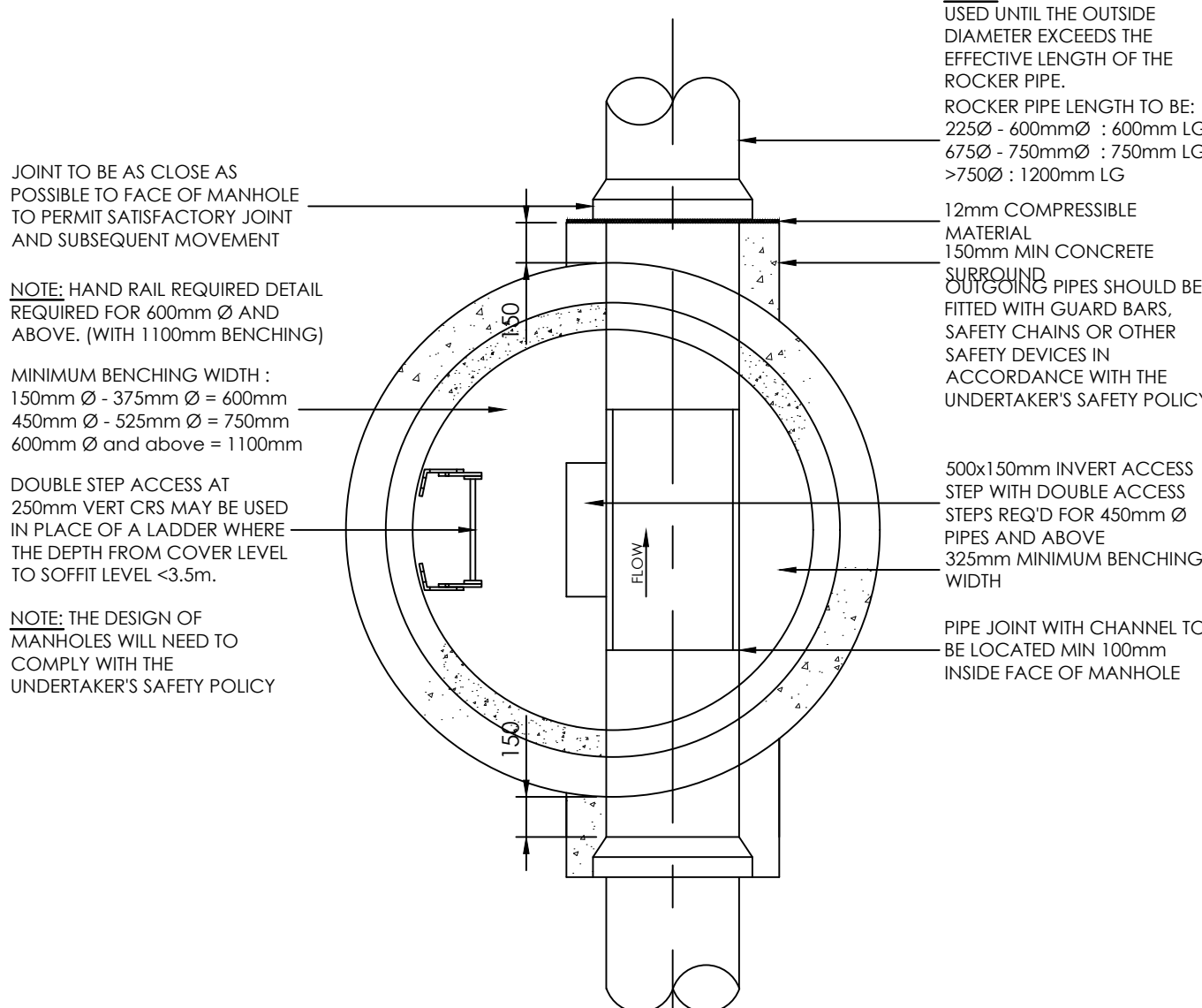
150mm MIN CONCRETE SURROUND

OUTGOING PIPES SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES IN ACCORDANCE WITH THE UNDERTAKER'S SAFETY POLICY

MINIMUM BENCHING WIDTH: 150mm Ø - 375mm Ø = 600mm 450mm Ø - 525mm Ø = 750mm 600mm Ø and above = 1100mm

DOUBLE STEP ACCESS AT 250mm VERT CRS

NOTE: THE DESIGN OF MANHOLES WILL NEED TO COMPLY WITH THE UNDERTAKER'S SAFETY POLICY

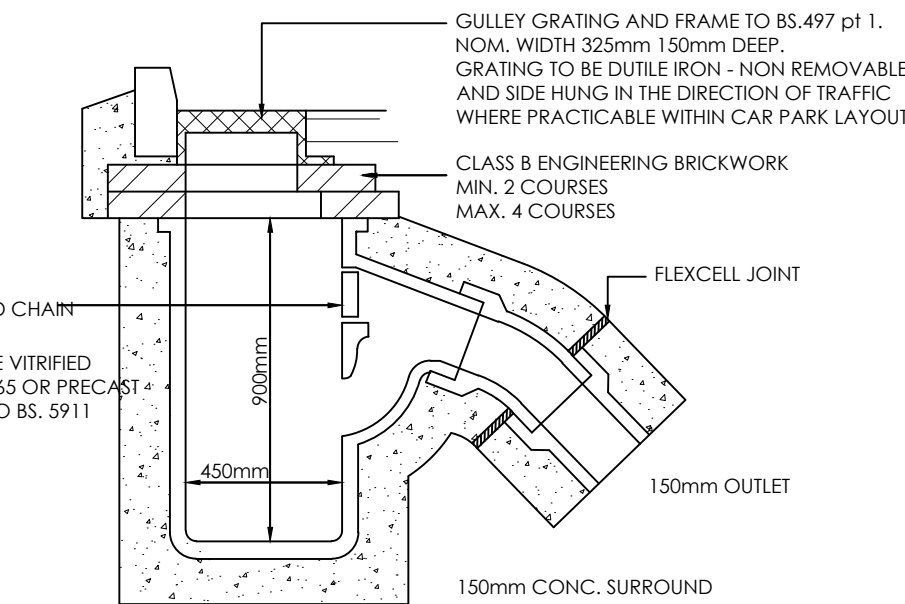


TYPICAL MANHOLE DETAIL TYPE A

DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3m to 6m

TYPICAL MANHOLE DETAIL TYPE B

MAXIMUM DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3.0m



TYPICAL ROAD GULLEY DETAIL

PLAN ON CONCRETE ENCASED PIPES

REQUIRED IN ROADWAYS & OTHER AREAS OF VEHICULAR TRAFFIC WHERE PIPE COVER IS LESS THAN 900mm (TO SOFFIT OF PIPE)

CONNECTION TO R.W.P/SWP/WASTE INSIDE BUILDING

RODDING EYE

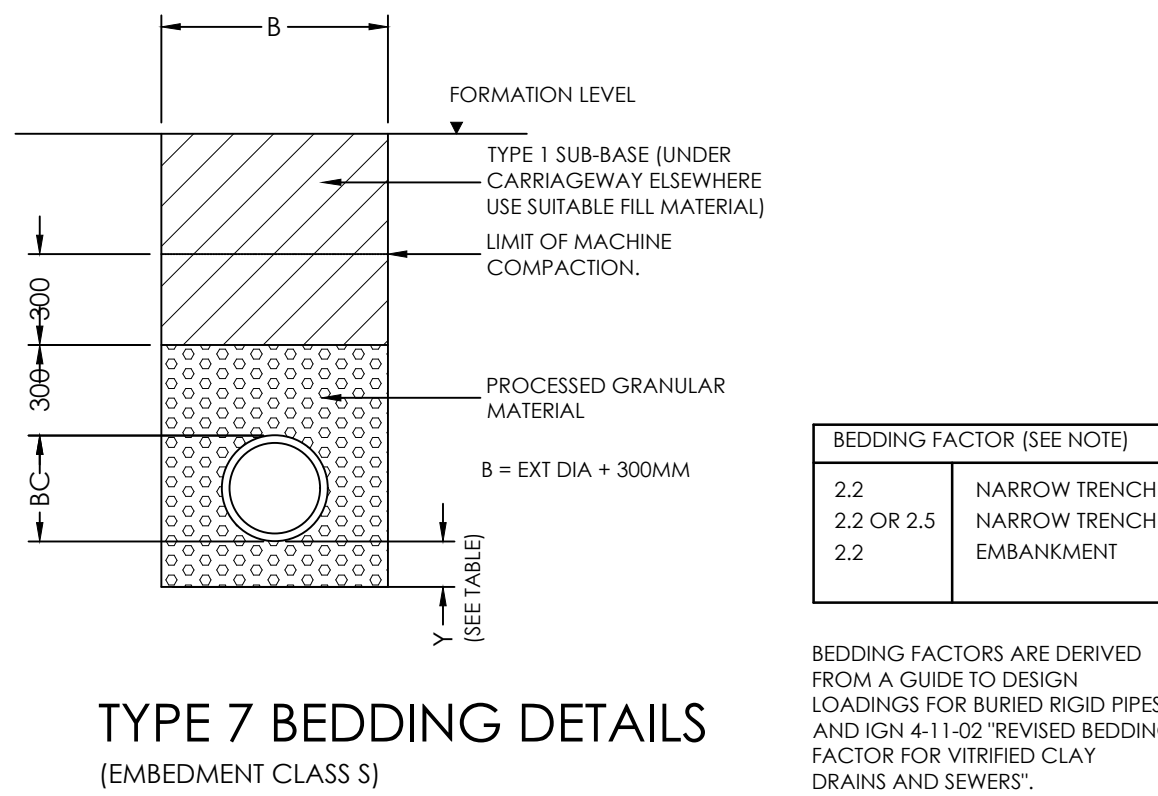
PIPE CROSS OVER DETAIL



Amber House Green Lane Liverpool L13 7GD
0151 305 0700 www.shapeengineering.co.uk @shapetweets

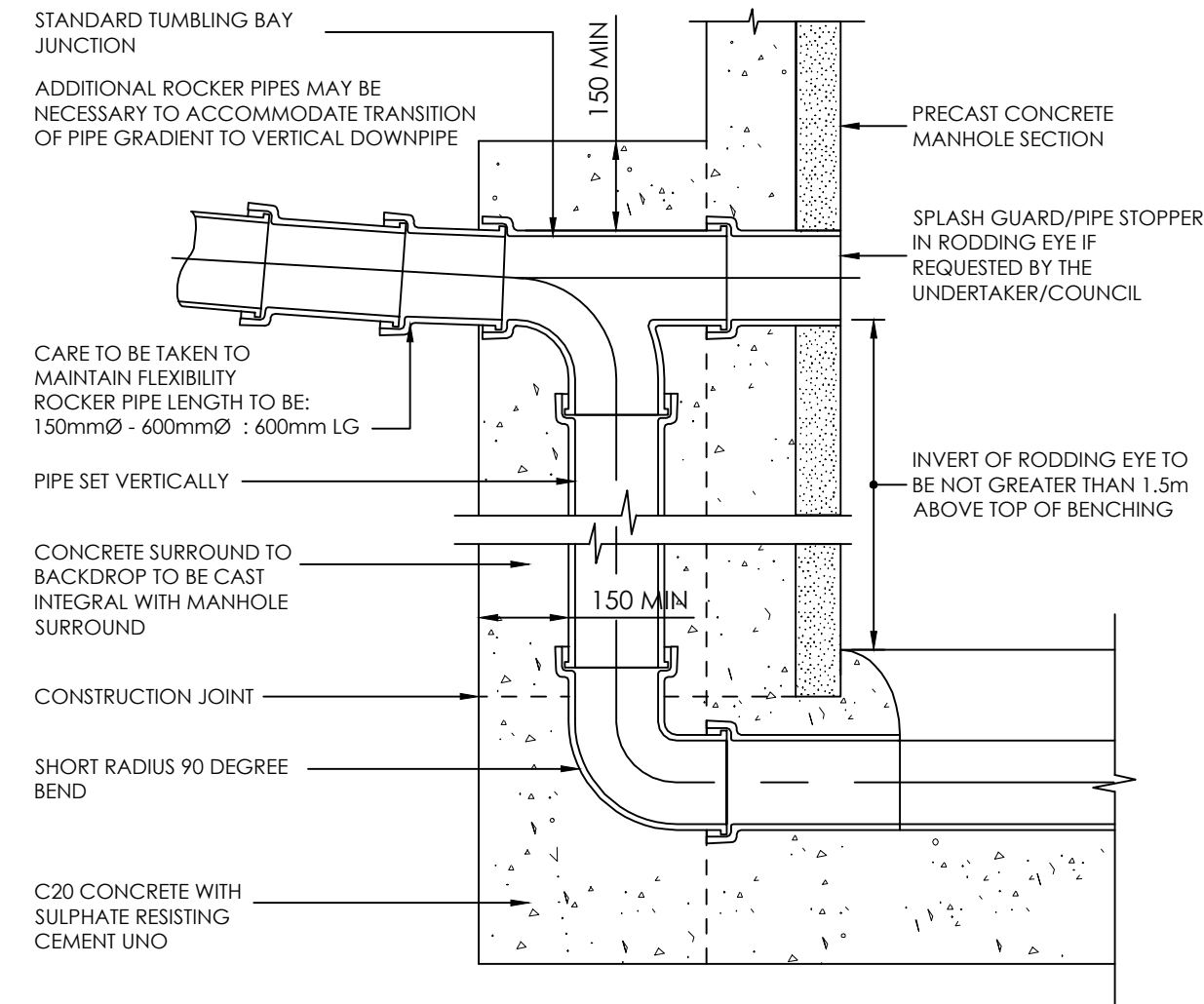
PROJECT
Blundells Farm,
West Lancashire

TITLE
Drainage Details

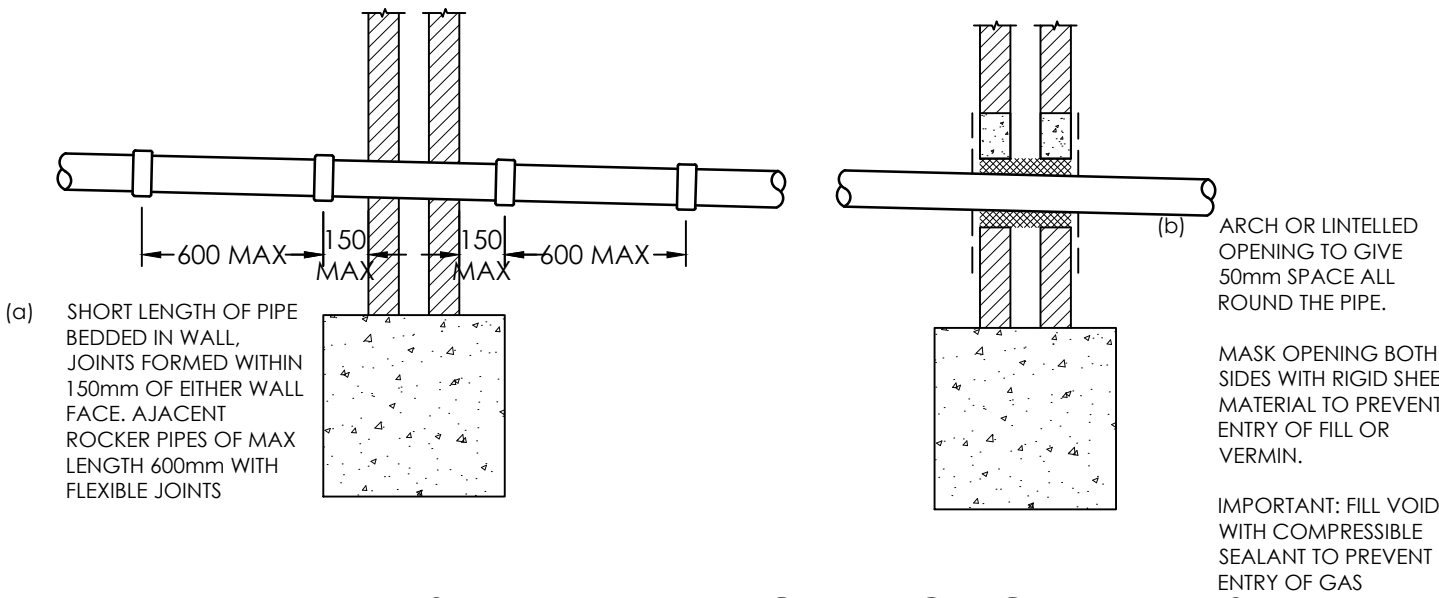


TYPE 7 BEDDING DETAILS

(EMBEDMENT CLASS S)



TYPICAL BACKDROP DETAIL



PIPES PENETRATING THROUGH WALLS

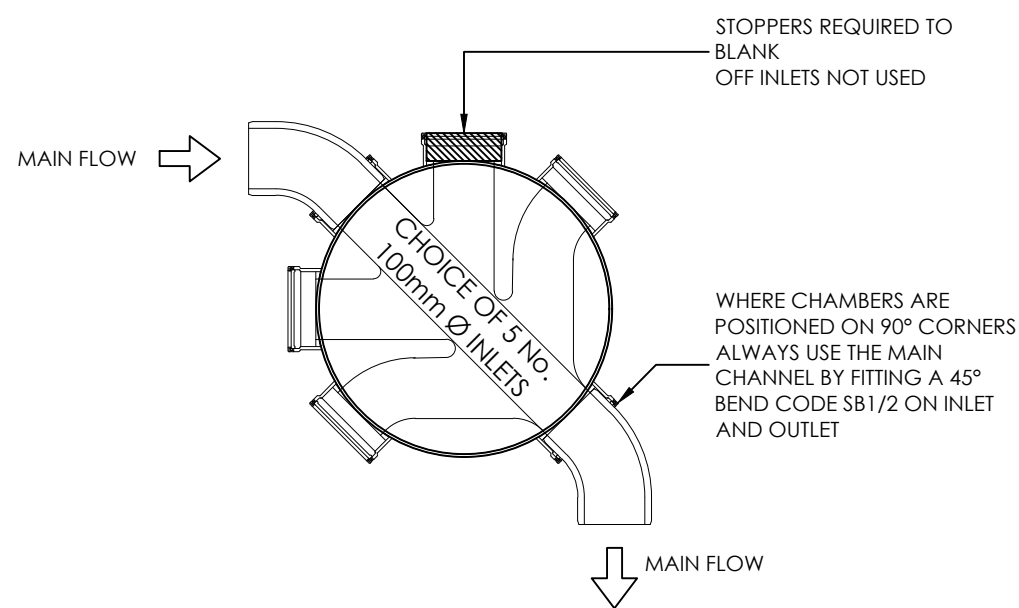
NORMAL INT PIPE DIA	MINIMUM INTERNAL CHAMBER DIA	MINIMUM CLEAR OPENING SIZE	COVER SLAB ACCESS HOLE	COVER FRAME SEALING RING
100	1050	750x750	750x750 CENTRAL	750x750 CENTRAL
150	1050	750x750	750x750 CENTRAL	750x750 CENTRAL
225	1200	1200x675	1200x675 CENTRAL	1200x675 CENTRAL
300	1200	1200x675	1200x675 CENTRAL	1200x675 CENTRAL
375	1350	1200x675	1200x675 CENTRAL	1200x675 CENTRAL

NOTE:

1 ALL DIMENSIONS IN MM

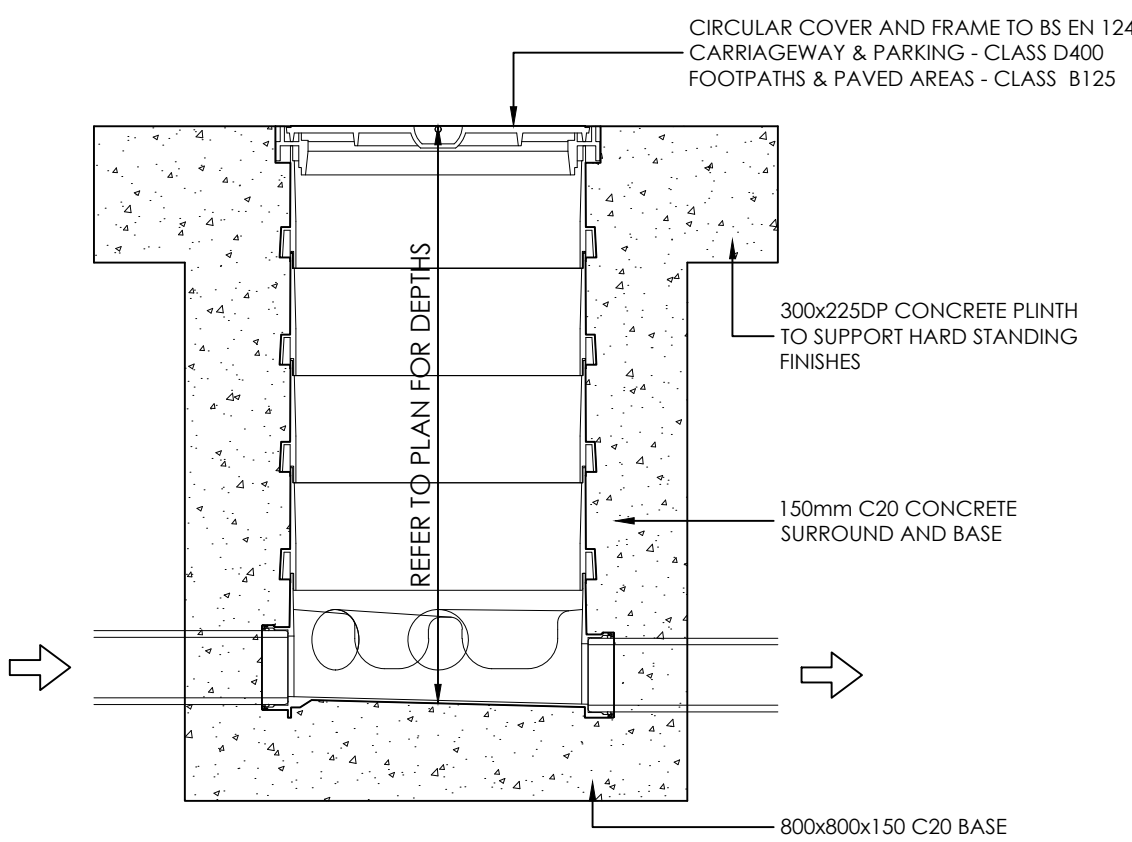
2 A CONCRETE SURROUND IS NOT NORMALLY TO MANHOLES UNLESS INSTALLED IN AREA OF UNSTABLE GROUND, UNDER CONDITIONS OF FLOATATION OR WHERE SUBJECTED TO EXCEPTIONAL OR ECCENTRIC LOADS IN WHICH CASES A 150mm SURROUND OF AT LEAST 20N/MM² CONCRETE SHOULD BE PROVIDED. ANY JOINTS SHOULD BE STAGGERED WITH THE PRECAST CONCRETE JOINTS.

3 DOUBLE STEPS SHALL BE PLASTIC ENCAPSULATED CARBON TO BS EN 1247-2 MANHOLE STEPS. STEP IRONS AT 300 CENTRES HORIZONTALLY AND VERTICALLY MAY BE USED AS AN ALTERNATIVE TO DOUBLE STEPS.



PLAN ON POLYPROPYLENE INSPECTION CHAMBER

(N.T.S)



SECTION OF POLYPROPYLENE INSPECTION CHAMBER

(N.T.S)

DO NOT SCALE OFF THIS DRAWING

GENERAL NOTES

THIS DRAWING TO READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR / FABRICATOR PRIOR TO COMMENCEMENT OF WORKS.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

ALL WORKS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE ENGINEER'S SPECIFICATIONS. RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITIES REQUIREMENTS.

THE PURPOSE OF THIS DRAWING IS FOR TYPICAL CONSTRUCTION DETAILS ONLY. MANHOLES / PIPE DIAMETERS / SUMP DEPTHS ETC WILL VARY ON PLAN.

REFER TO DRAINAGE LAYOUT DRAWING FOR ALL PIPE SIZES, MANHOLE SIZES, PIPE LENGTHS, SUMP DEPTHS, STORAGE TANK CONFIGURATIONS, COVER LEVELS AND INVERT LEVELS

P01	GP	First Issue	15.02.23
Rev	By	Description	Date
Revision Schedule			
Client			
F Lloyd			
Status	S1	Purpose of Issue	Preliminary
Designed By	GP	Approved By	EC
Drawn By	GP		
Project No.	2514	Sheet No.	C-0002
Scale (@ A1)	As Shown	DATE	15/02/2023
Rev	P01		