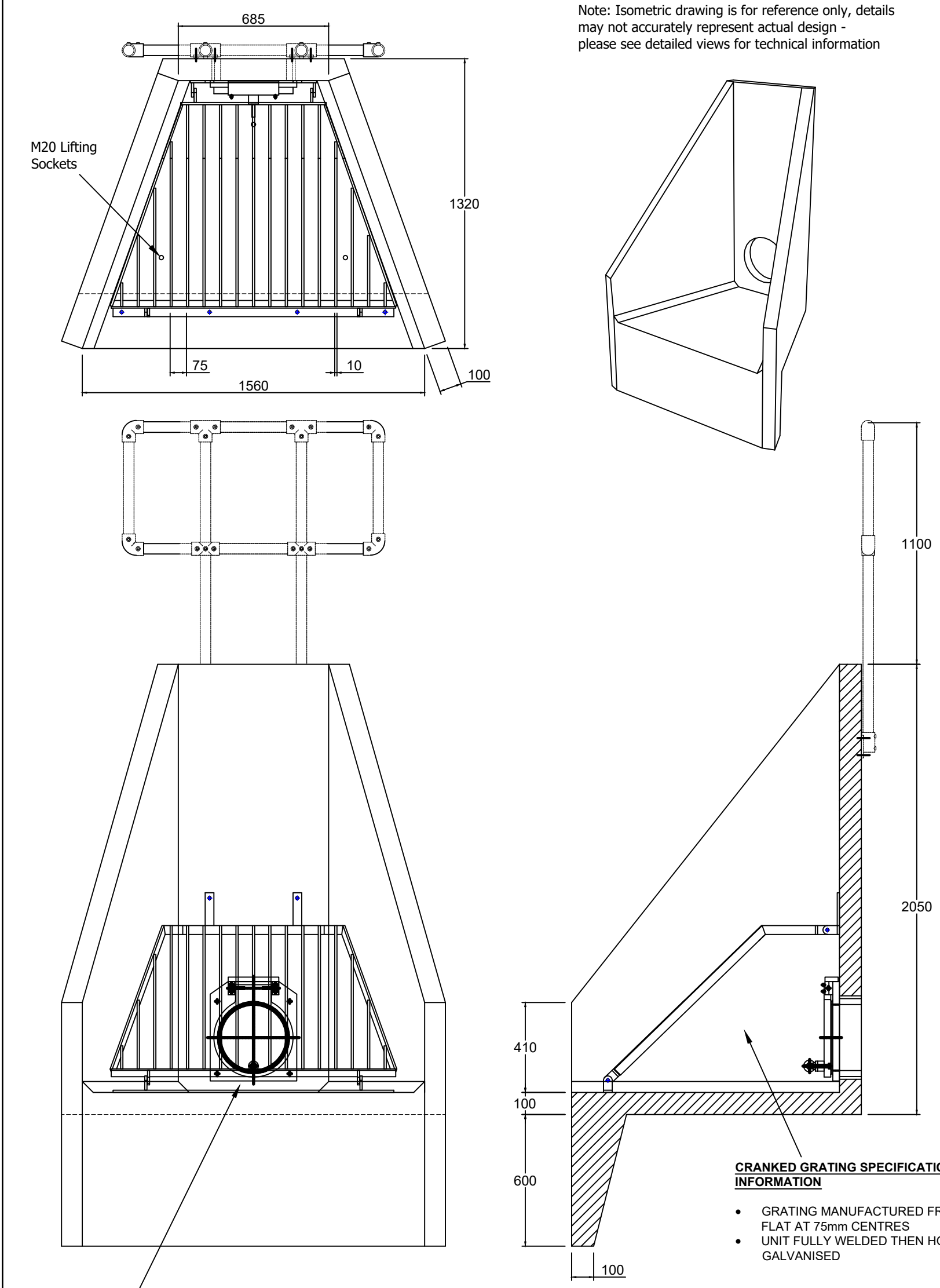


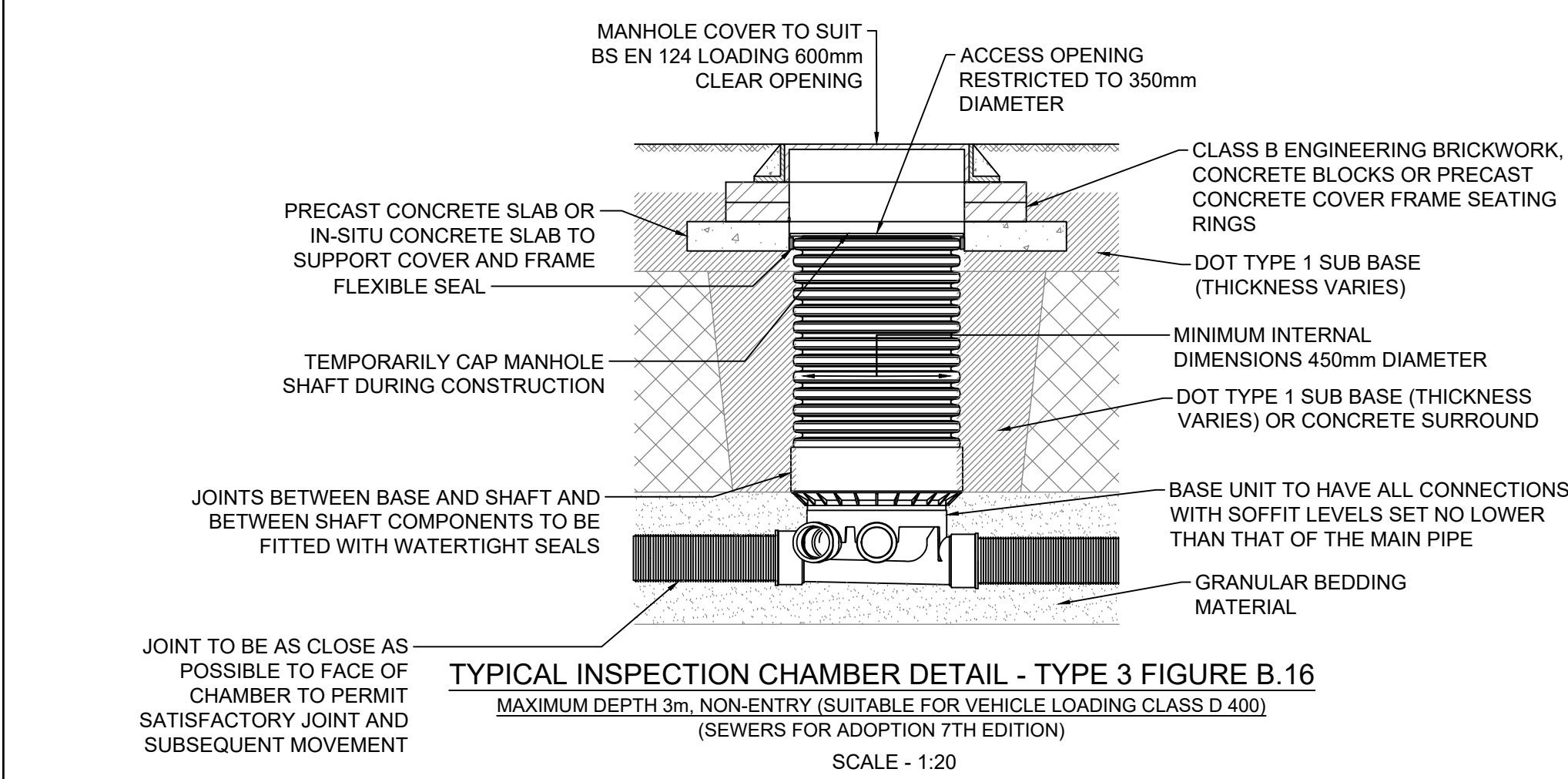


ALTHON 300 HDPE/SS FLAP VALVE SPECIFICATION INFORMATION

- THE VALVE PLATE AND THE BACK PLATE ARE PRODUCED USING HDPE/SS
- THE HINGE PIN AND BALLAST WEIGHT ARE PRODUCED IN SS316 AS STANDARD
- THE BALLAST WEIGHT CAN BE EASILY ADJUSTED IF REQUIRED
- THE SEALING ARRANGEMENT CONSISTS OF AN EPDM LIPS SEAL IN THE BACK PLATE
- THE VALVE PLATE IS ALSO INSTALLED ON AN ANGLE IN RELATION TO THE BACK PLATE TO ENSURE A GOOD SEAL

MATERIAL: HDPE, SS316, EPDM
OPENING: Ø300mm
MAX LOAD FROM BOTTOM INVERT LEVEL (B.I.L.): 1.3MWC LONG PERIOD (=50 YEARS) 5MWC SHORT PERIOD (=72 HOURS)
NUMBER OF CHEMICAL ANCHORS M8: 4 PIECES

ALTHON OUTLET HEADWALL DETAIL H7CC HEADWALL (SCALE NTS)



TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3 FIGURE B.16
MAXIMUM DEPTH 3m, NON-ENTRY (SUITABLE FOR VEHICLE LOADING CLASS D 400)
(SEWERS FOR ADOPTION 7TH EDITION)
SCALE - 1:20

ALTHON NOTES:

- All dimensions in mm
- All measurements $\pm$ 1mm

Specification Information

- Opening in back wall cast to suit outside diameter of the pipework
- Invert level of pipe can be set to your specification

Headwall Installation

Units should be bedded on minimum 150mm of semi-dry concrete. Sit the headwall level or with a slight fall 1:50 from pipe to spill mouth.

Handling

A. Weight of concrete is based on 2.4 tonne/m²+5% is recommended for sizing lifting equipment.

B. All lifting points shall be used as specified below - Anchor points & loops - Total Qty: 3

C. Unit to be lifted as per lifting diagram

Concrete

A. Mix ref: Self-compacting DC4/DS4 Mix

B. Lifting strength based on 2 cubes = 20N/mm²

C. Characteristic 28 day cube strength = 50N/mm²

D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

Reinforcement

A. Reinforcement to BS EN 13369

B. Scheduling, dimensioning, bending & cutting to BS8666

C. Cage to be machine tied with steel wire

Manufacture

A. Manufacture to BS EN 15258:2008 precast concrete products - Retaining wall elements, Factory Production Control certificate number: 0086-CPR-650446 & BS EN 13369

B. Tolerances to BS EN 13369 clause 4.3.1.1

C. Finishing:

Class	Top	Sides	Base	Rear of back wall
	A	A	A	Self - Levelled

D. Marking: Units shall be indelibly marked to show:

- Mould reference code
- De-mould date
- Job reference number & unique product number
- Unit weight (kg)

Design

A. Concrete design to EC2

B. Althon have designed the concrete units only, the site conditions should be assessed for suitability by the scheme designer

C. Units are designed to withstand a vertical live load surcharge of 10kN/M²

D. Weight of soil = 18kN/M²

E. Angle of internal friction = 30 Deg.

F. Design Life: >50 years

Min Cover	Cover Block Size (mm)	Min Cover Size (mm)	Max Cover Size (mm)
All Faces	33	28	38

Exposure Classification	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
All Faces	XC3/4	XD2	XF3	XA2

Fabrication Specification

A. Manufacture IAW EN 1090-2 EXC CLASS 1

B. Material grade is to be: BS EN 10025 S275

C. Welding carried out IAW EN 1090-2 PARA 7.5.4 - 7.5.18

D. All fillet and butt welds to have a minimum throat thickness of 6mm & joints to be fully welded where possible.

E. Ensure vertical flats are fully welded both sides where possible.

F. All sharp edges and burrs are to be removed.

G. Remove all weld splatter.

H. Holes by punching are permitted with reaming.

I. Galvanising is carried out after fabrication to BS EN ISO 1461

Handrail Specification

A. Kee Klamp® Galvanised Size 8 Fittings

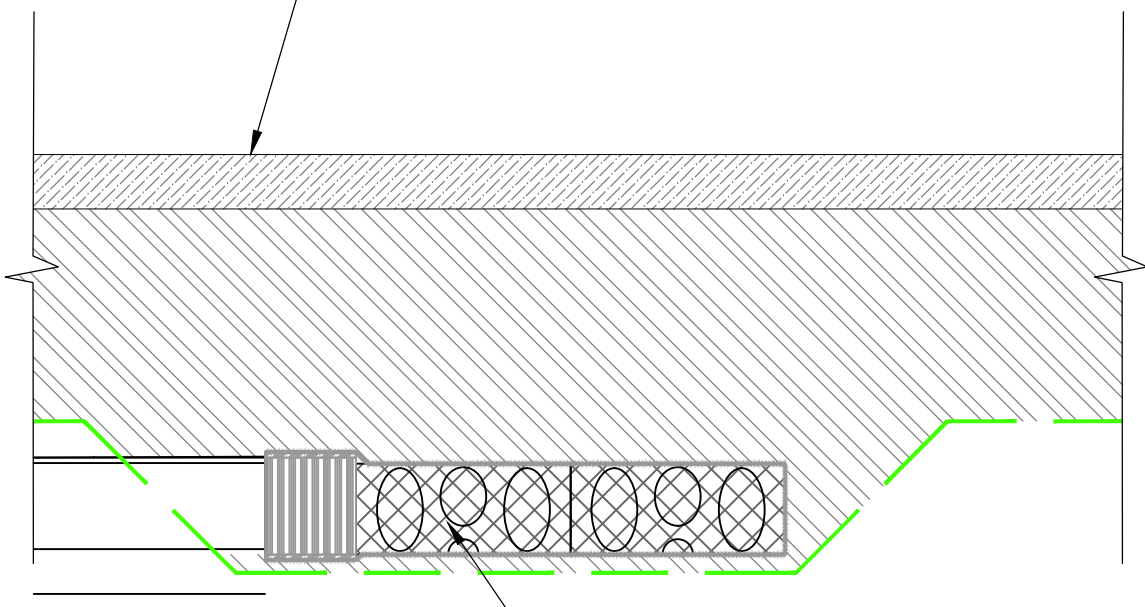
B. Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255

C. 360N/m Design Load at stated in BS 8118, BS 6180, BS 6399 & BS 7818, Civil Engineering Specification for the Water Industry (CESWI) 7th Edition Clause 2.60 Handrails & Balusters & The Engineering Equipment and Materials Users' Association (EEMUA) Publication 105 7th Edition Factory Stairways, Ladders and Handrails

D. Other design loads available on request

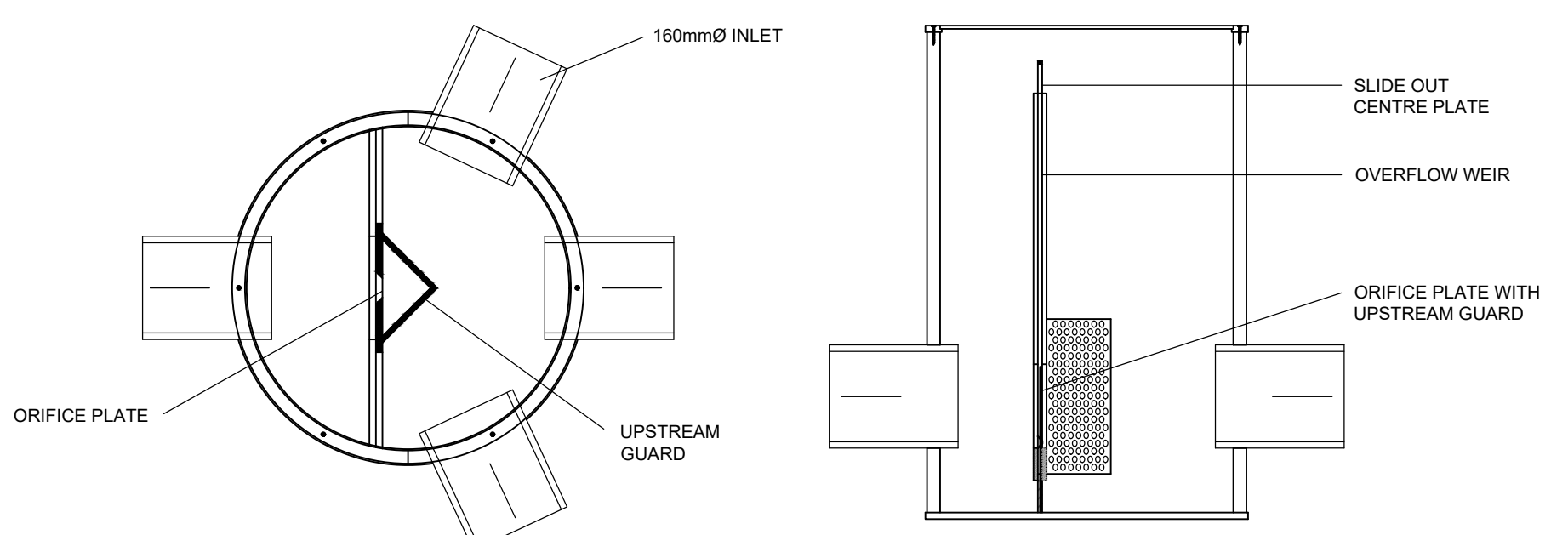
E. GRP/FRP Handrails also available

REFER TO PROPOSED EXTERNAL WORKS
STANDARD DETAILS - POROUS PAVING

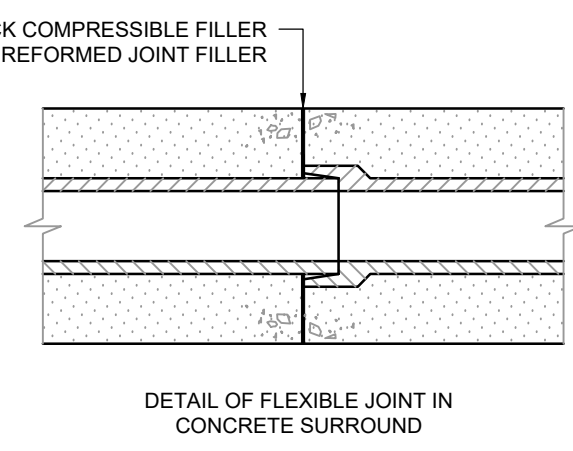


**DIFFUSER UNIT INLET
710X710X150mm CELLULAR
CRATE, WRAPPED IN
GEOTEXTILE WITH 100mmØ
PIPE SOCKET**

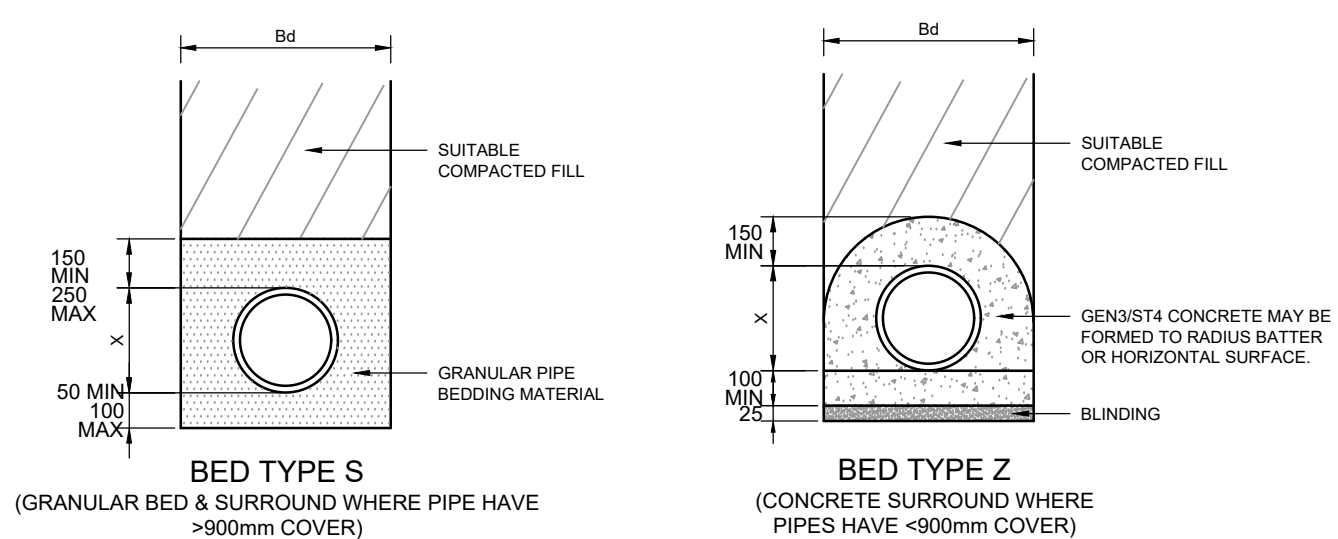
TYPICAL PERMAVOID DIFFUSER UNIT WITHIN POROUS PAVING (SCALE NTS)



**CONTROFLOW FLOW CONTROL CHAMBER
(1:10)**



FLEXIBLE JOINT DETAIL



NOTE
1. TYPE Z BEDDING TO HAVE A FLEXIBLE JOINT IN THE CONCRETE SURROUND (AS DETAILED BELOW) AT EACH PIPE JOINT.

TABLE OF TRENCH WIDTH (Bd) FOR VARYING PIPE SIZES

NOMINAL INTERNAL DIAMETER (mm) X	MINIMUM TRENCH WIDTH (mm) Bd	MAXIMUM TRENCH WIDTH (mm) Bd
100	500	600
150	550	700
225	625	800
300	800	900
375	1075	1150
ABOVE 1200	OUTSIDE DIAM. OF PIPE PLUS 1.0m	OUTSIDE DIAM. OF PIPE PLUS 1.0m

TABLE DERIVED FROM BS EN 1610 AND NBS

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DRAINAGE STRATEGY IS SUBJECT TO APPROVAL BY THE SAB AUTHORITY

P03	REMOVED CATCH PIT TYPE C AND IC TYPE 4. ADDED PERMAVOID DIFFUSER UNIT.	BW	BW
P02	REVISIONS AS PER ATKINSREALIS COMMENTS.	PY	BW JB
P01	STAGE 3 ISSUE.	PY	BW JB
Rev.	Description	By	Chk App

Client:

Project:

YSGOL RHYD Y GRUG

Drawing Title:

**DRAINAGE CONSTRUCTION DETAILS
(SHEET 2 OF 2)**

Drawing No.

CC2594 CAM ZZ XX DR C 1106

Project Originator Vol. Level Type Role Number

Status: SS PRELIMINARY Scale @A1: N/A Rev: P03

CAMBRIA
Constructive Thinking

Civil & Structural Engineers
Cambria House
16 Plas St. Pol de Leon
Penarth Marina
Cardiff, CF64 1TR

T 029 2009 3333
E admin@cambria.co.uk
W www.cambria.co.uk
@cambriauk
uk.linkedin.com/in/cambriauk