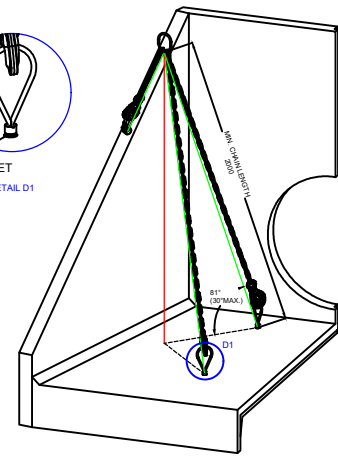
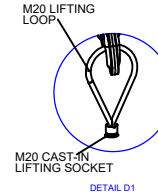
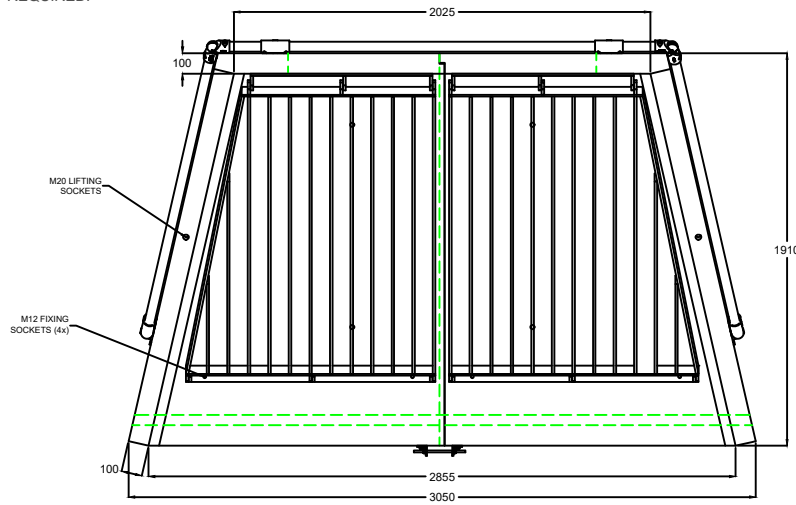


OPENING IN BACK WALL CAST TO SUIT THE OUTSIDE DIAMETER OF THE PIPE AT INVERT HEIGHT REQUIRED.



NOTE: ISOMETRIC DRAWING IS FOR REF. ONLY, DETAILS MAY NOT REPRESENT THE ACTUAL DESIGN -PLEASE SEE THE DETAILED VIEWS FOR TECHNICAL INFO.

NOTES:
 * All dimensions in mm U.O.S
 * All measurements ± 1mm

Specification Information
 * Opening in back wall cast to suit outside diameter of the paperwork.
 * Invert level of pipe can be set to your specification.

Headwall Installation
 Units should be bedded on minimum 100mm thick well compacted Class 6A* selected well graded granular material. *Manual of contract documents for Highway Works: Volume (MCHW1) specification for Highway Works, Series 800 Nov 09. Sit the headwall level or with slight fall 1:50 from pipe to outlet.

Handling
 A. Weight of concrete is based on 2.4 tonne/m³+5% is recommended for sizing lifting equipment.
 B. All lifting points shall be used as specified below.
 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, dimensions, bend & 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-650448 & BS EN13369. Tolerances to BS EN 13369 clause 4.3.1.1
 B. Finishing:
 C. Marking: Units shall be indelibly marked to show: Mould Reference code. De-mould date. Job reference number & unique product number. Unit weight (kg)

Class	Top	Sides	Rear	Rear of back wall
	A	A	A	Self - Levelled
Marking: Units shall be indelibly marked to show:				
+ Mould Reference code.				
+ De-mould date.				
+ Job reference number & unique product number.				
+ Unit weight (kg)				

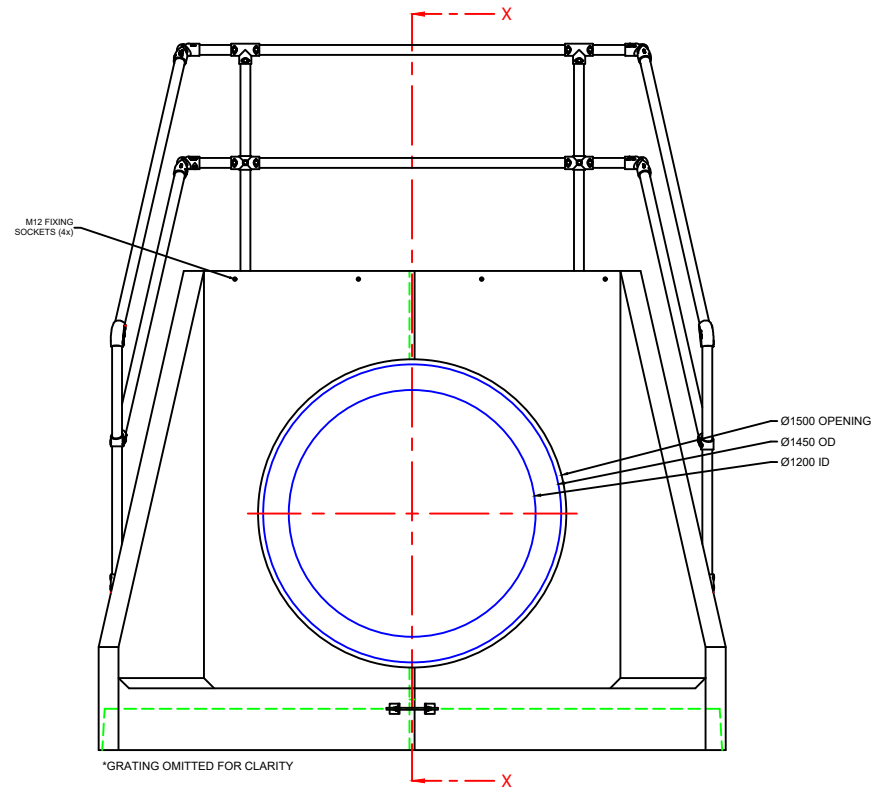
Design
 A. Concrete design to EC2.
 B. Althon have designed the concrete units only, the site conditions should be assessed for suitability by the scheme designer.
 C. Units are designed to withstand a vertical live load surcharge of 10kN/m².
 D. Weight of soil = 18kN/m³.
 E. Angle of internal friction = 30°
 F. Design Life: >50 years

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

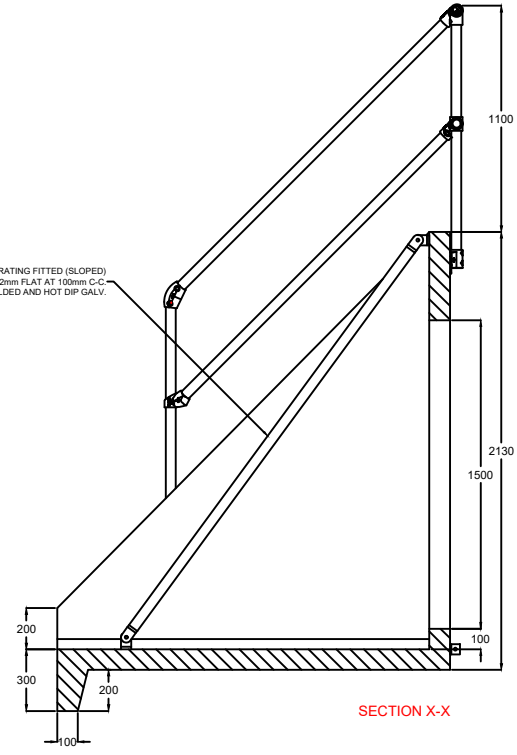
Exposure	Exposure Index	Corrosion Induced	Freeze/Thaw	Chemical
All Facets	XS3	XS3	XF4	XAS

Fabrication Specification
 A. Manufacture IAW EN 1090-2 EXC CLASS 1
 B. Material grade is to be: BS EN 10025 S275
 C. Welding to 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 fully welded if 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 without reaming.
 I. Galvanising is carried out after fabrication to BS EN: ISO1461.

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 as stated: BS 8118, BS 6180, BS 5399 & BS 7816, Civil Engineering Specification for the Water Industry (CESWI).
 D. Other design loads available on request.
 E. GRP/FRP Handrails also available.



GMS GRATING FITTED (SLOPED)
 50x12mm FLAT AT 100mm C-C
 FULLY WELDED AND HOT DIP GALV.



SECTION X-X

DO NOT SCALE DRAWING



Althon

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DRAWING TITLE / PROJECT:
**H20C C HEADWALL
 +GMS GRATING (SLOPED)
 +3 SIDED HANDRAIL**

CLIENT: SEYMOUR CE LTD

DRAWING DATE: 02/08/2021 DRAWN BY: PN

TOTAL WEIGHT: 3854 kg CHECKED BY: DH / JP

HEADWALL WEIGHT: 1725 kg (LH) GRATING WEIGHT: 307 kg
 1725 kg (RH) HANDRAIL WEIGHT: 97 kg

TOE BEAM WEIGHT: MSC WEIGHT:

DRAWING NO.
20156 - (10-11)