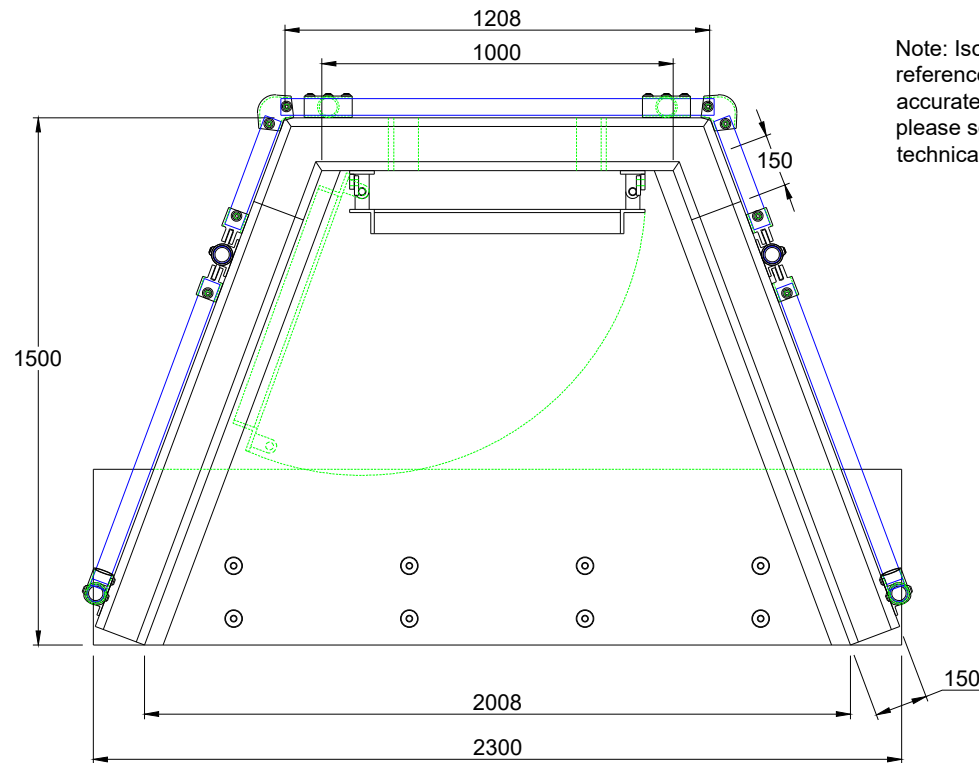
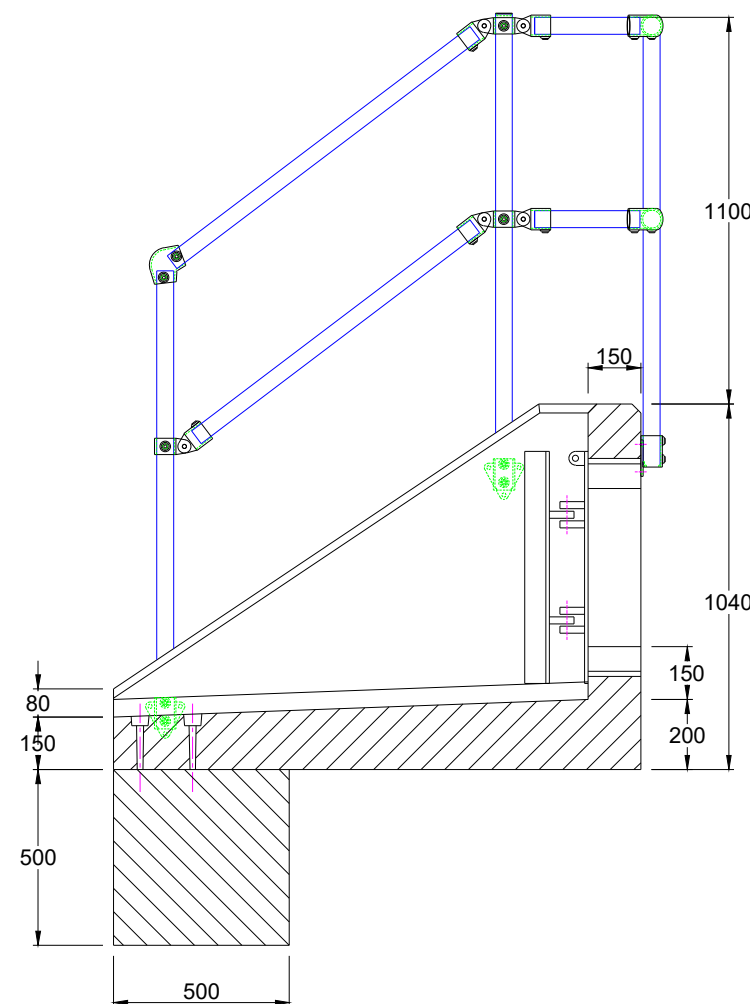
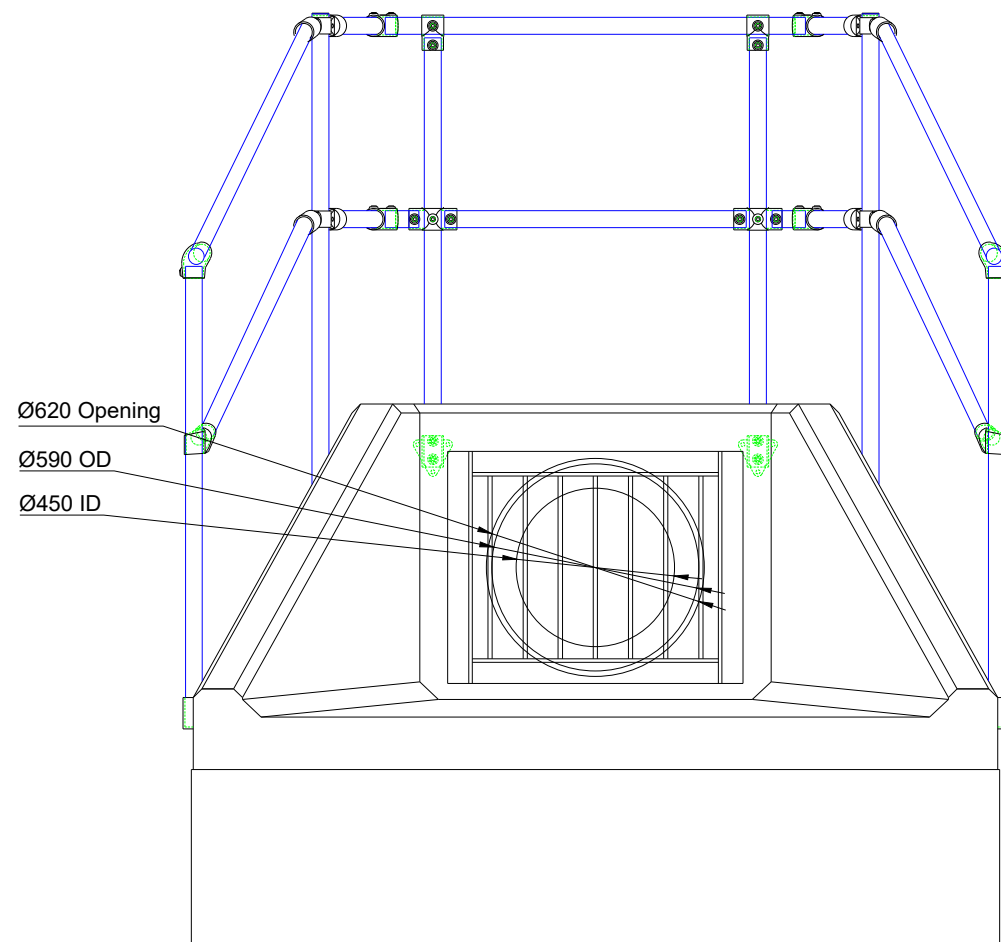
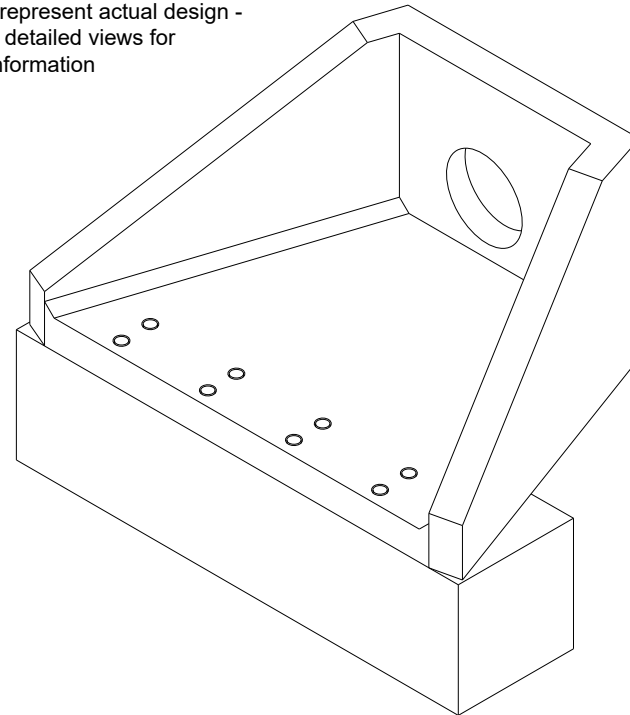




Note: Isometric drawing is for reference only, details may not accurately represent actual design - please see detailed views for technical information



- Sewers for Adoption / Sewers for Scotland Outfall Safety Grille - SFA1450
- In accordance with Figure C.6 Typical Outfall Safety Grille - for outfalls of 350mm diameter or greater - Sewers for Adoption 7th Edition
 - Material Grade is to be: BS EN 10025 S275
 - All mild steel to be hot dipped galvanized after fabrication
 - Galvanizing to BS EN: 1461
 - Welding to BS EN 1011-2:2001
 - Hinged on one side with padlock facility
 - Weight Approx: 55kg

DO NOT SCALE DRAWING

NOTES:

- All dimensions in mm
- All measurements ± 1 mm

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 200mm thick well compacted Class 6A* selected well graded granular material.
*Manual of contract documents for Highway Works: Volume (MCHW1) specification for Highway Works, Series 600 (Nov.09).
Sit the headwall level or with a slight fall 1:50 from pipe to spill mouth.

Handling

- Weight of concrete is based on 2.4 tonne/m³+5% is recommended for sizing lifting equipment.
- All lifting points shall be used as specified below
- Unit to be lifted as per lifting diagram

Concrete

- Mix ref: Self-compacting DC4/DS4 Mix
- Lifting strength based on 2 cubes = 20N/mm²
- Characteristic 28 day cube strength = 50N/mm²
- Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

Reinforcement

- Reinforcement to BS EN 13369
- Scheduling, dimensioning, bending & cutting to BS8666
- Cage to be machine tied with steel wire

Manufacture

- Manufacture to BS EN 15258:2008 precast concrete products - Retaining wall elements, Factory Production Control certificate number: 0086-CPR-650448 & BS EN 13369
- Tolerances to BS EN 13369 clause 4.3.1.1

Finishing:

Class	Top	Sides	Base	Rear of back wall
A	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

- Concrete design to EC2
- Althon have designed the concrete units only, the site conditions should be assessed for suitability by the scheme designer
- Units are designed to withstand a vertical live load surcharge of 10kN/M²
- Weight of soil = 18kN/M²
- Angle of internal friction = 30 Deg.
- Design Life: >120 years

Min Cover	Cover Block	Min Cover	Max Cover
Size (mm)	Size (mm)	Size (mm)	Size (mm)
All Faces	55	50	60

Exposure	Exposure induced	Corrosion induced	Freeze/thaw	Chemical
Classification	by Carbonation	by Chloride	attack	attack
All Faces	XC3/4	XD3	XF4	XA3

Fabrication Specification

- Manufacture IAW EN 1090-2 EXC CLASS 1
- Material grade is to be: BS EN 10025 S275
- Welding carried out IAW EN 1090-2 PARA 7.5.4 - 7.5.18
- All fillet and butt welds to have a minimum throat thickness of 6mm & joints to be fully welded where possible.
- Ensure vertical flats are fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.
- Holes by punching are permitted with reaming.
- Galvanising is carried out after fabrication to BS EN:ISO 1461

Handrail Specification

- Kee Klamp® Galvanised Size 8 Fittings
- Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255
- 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
- Other design loads available on request

REV NO	DATE	DESCRIPTION
		
ADDRESS: ALTHON LIMITED VULCAN ROAD SOUTH NORWICH NR6 6AF		
TEL: 01603 488700 FAX: 01603 488508 EMAIL: sales@althon.co.uk WEBSITE: www.althon.co.uk		
PROPRIETARY & CONFIDENTIAL		
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DRAWING TITLE / PROJECT:

CLIENT: Anglian Water			
SCALE: NTS	PAPER: A3	SHEET NO: 01 OF 01	DATE: 18 - 09 - 19
HEADWALL WEIGHT: 2000kg		TOE WEIGHT: 1380kg	
PRODUCT NAME: SFA10X			
DRAWING No: ALT-AW-110X-450-500-01			

