

NOTES:

- All dimensions in mm
- All measurements ± 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 thick well compacted Class 6A or 6K* well graded granular material with a 50mm topping of fine material (Class 6L*) to ensure units are level and stable.

*Manual of contract documents for Highway Works: Volume (MCHW1) specification for Highway Works, Series 600 (Nov 09).

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, 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-650448 & BS EN 13369
- B. Tolerances to BS EN 13369 clause 4.3.1.1
- C. Finishing:

	Top	Sides	Base	Rear of back wall
Class	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: >120 years

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

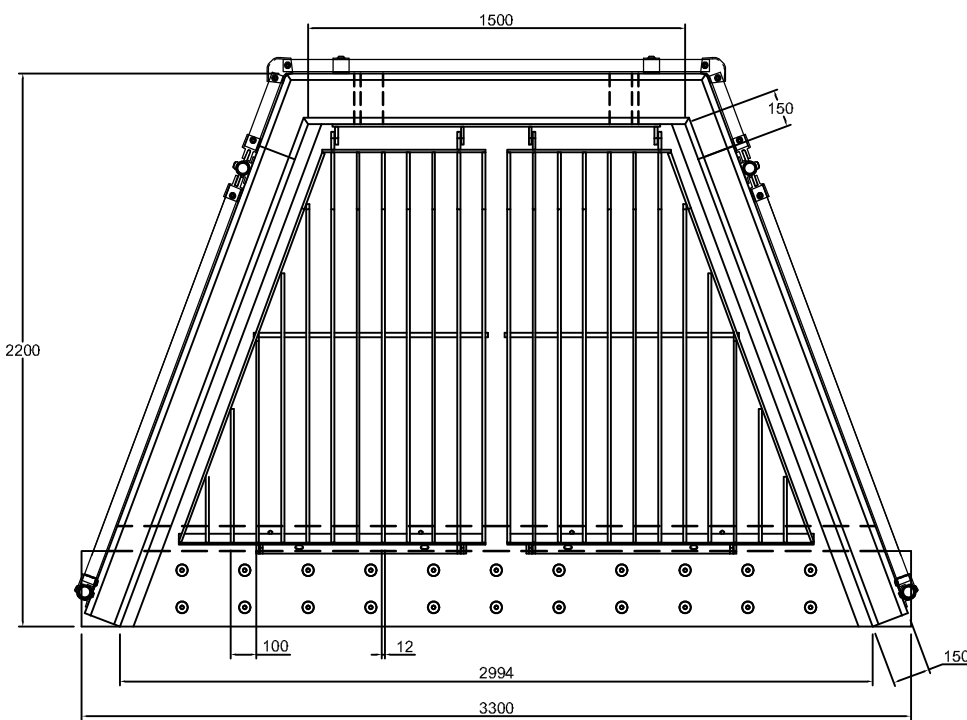
Exposure Classification	Exposure Induced by Carbonation	Corrosion Induced by Chloride	Freeze/thaw attack	Chemical attack
All Faces	XC3/4	XD3	XF4	XA3

Fabrication Specification

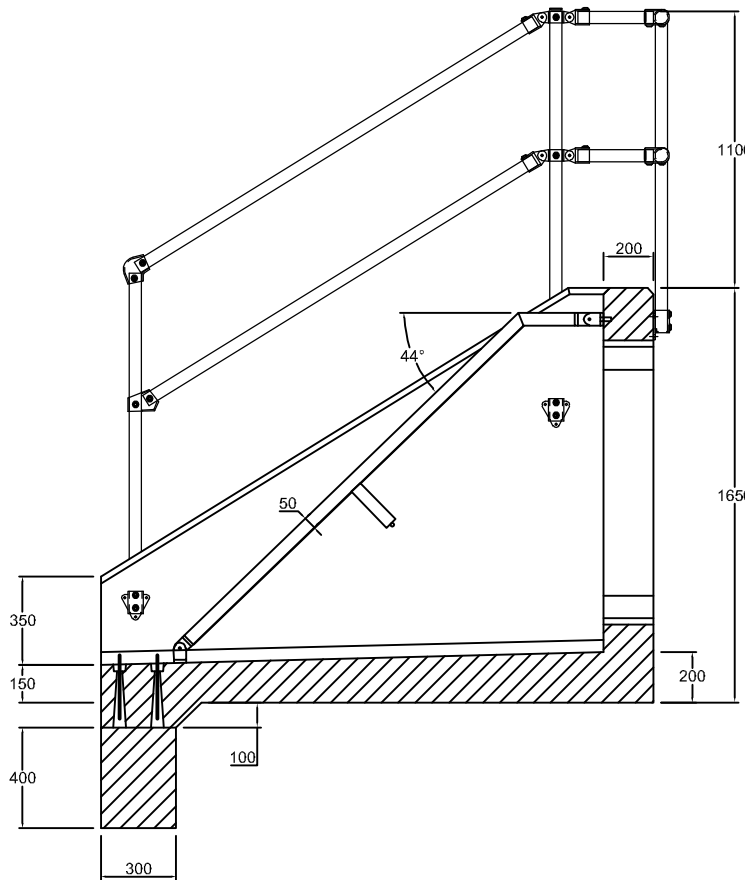
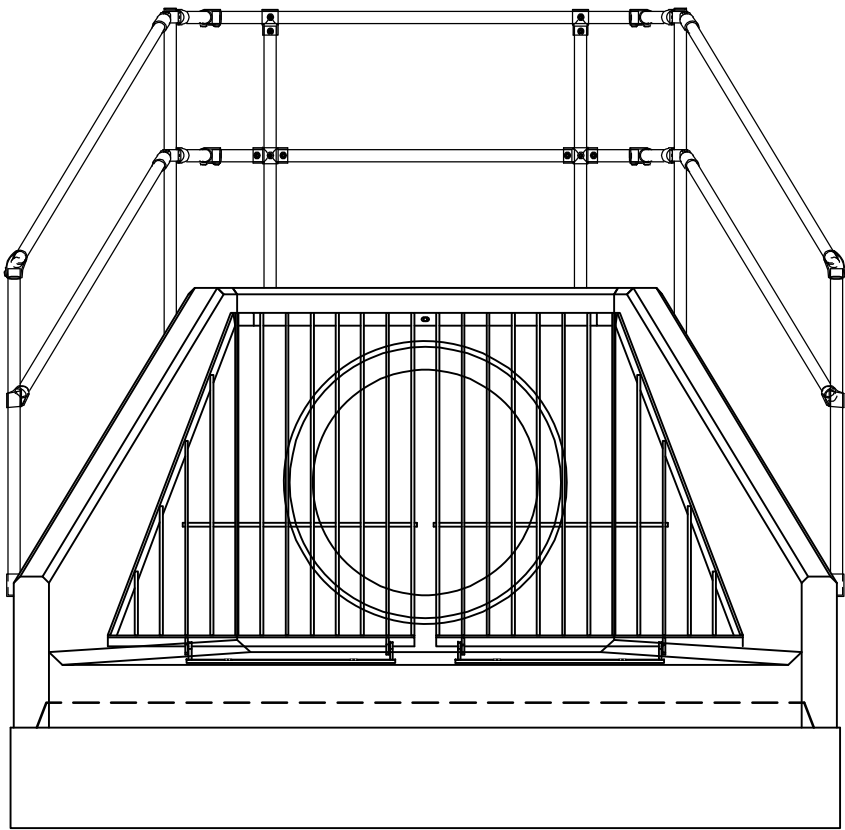
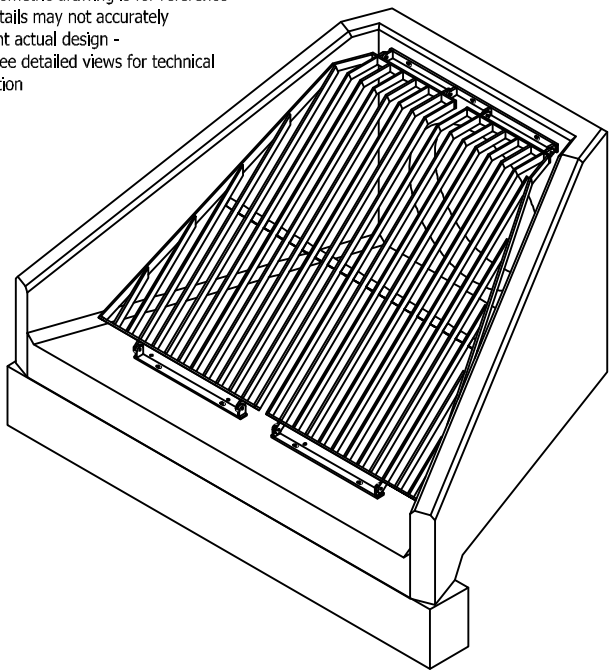
- A. Manufacture IAW EN 1090-2 EXC CLASS 1
- B. Material grade is to be: BS EN 10025 S275
- C. Welding carried out IAW EN 1090-2 PARA 7.5.4 - 7.5.18
- D. All fillet and butt welds to have a minimum throat thickness of 6mm & joints to be fully welded where possible.
- E. Ensure vertical flats are fully 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' Assodation (EEMUA) Publication 105 7th Edition Factory Stairways, Ladders and Handrails
- D. Other design loads available on request
- E. GRP/FRP Handralls also available



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



SFA15B HEADWALL
400 x 300mm TOE
CRANKED GRATING
3 SIDED KEE KLAMP

Reference	Specification (Althon)	Invert Level (mAOD)
Headwall 1	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.990
Headwall 2	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	5.060
Headwall 3	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.985
Headwall 4	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.965
Headwall 5	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.945
Headwall 6	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.920
Headwall 7	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.870
Headwall 8	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.840
Headwall 9	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.840
Headwall 10	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.710
Headwall 11	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.650
Headwall 12	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.300
Headwall 13	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.190
Headwall 14	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.185
Headwall 15	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.225
Headwall 16	Precast Concrete Splayed Headwall SFA15B with Cranked Grating (3 Sided Kee Klamp)	4.190
Headwall 17	Brick Headwall to WSCC specification no. S278/38/32	4.700
Headwall 18	Brick Headwall to WSCC specification no. S278/38/32	4.650

GENERAL NOTES

1. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.

2. Tender or billing drawings shall not be used for construction or the ordering of materials.

3. Do not scale. All dimensions and levels to be site confirmed.

4. This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.

5. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.

6. All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

P7	AMENDED TO SUIT LLFA COMMENTS	05.01.23	SOL	MR
P6	HEADWALL TYPE SFA10B REMOVED. HEADWALL SCHEDULE ADDED.	19.10.22	DT	MR
P5	DRAWING TITLE CHANGED	02.08.22	DT	MR
P4	AMENDED TO SUIT ICOSA WATER COMMENTS	10.05.22	DT	MR
P3	CRANKED GRATING ADDED	21.04.22	DT	MR
P2	TITLE CHANGED	25.02.22	DT	MR
P1	INITIAL ISSUE	14.02.22	DT	MR
Rev	Amendments	Date	Dwn	Chk
Status				
PRELIMINARY				
Client				
Taylor Wimpey				
Architect				
Project				
SEFTER ROAD BOGNOR REGIS				
Title				
MAIN DRAINAGE CONSTRUCTION DETAILS SHEET 2 OF 7				
Date	FEBRUARY 2022	Scale @ A1	NTS	
Clients Ref.		Project Ref.	10768	
Civils & Transport Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS Tel.01444 871444 Web: www.gtacivils.co.uk				
Drawing Number			Rev.	
10768/1502			P7	