

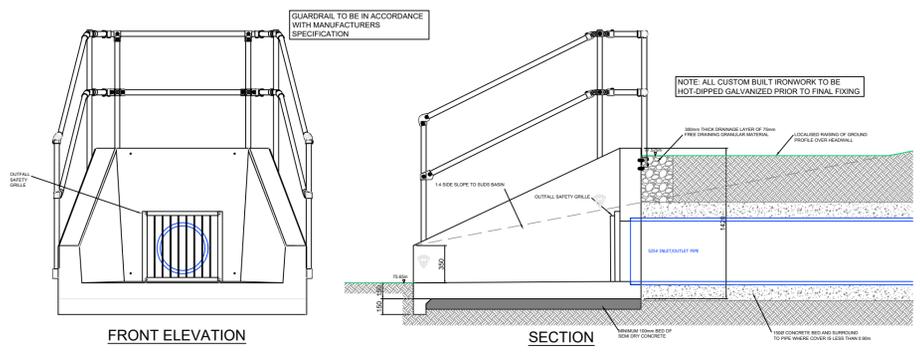


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**NOTES:**

**GENERAL NOTES**

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BECKWITH AND HANLON DRG. 24-011-200 SERIES DRAWINGS



TYPICAL INSTALLATION WITH GUARD RAIL

**1. Handling**

Part	Vol (m <sup>3</sup> )	Weight (T)	Wt + 5% (T)
OD MWV	0.74	1.92	2.02

Weight is based on 2.4 T/m<sup>3</sup> + 5% is recommended for sizing lifting equipment.

**2. Concrete**

- Mix ref: Wet Cast Mix
- Lifting strength based on 2 cubes = 15N/mm<sup>2</sup>
- Characteristic 28 day cube strength = 50 N/mm<sup>2</sup>
- Concrete provides Design Chemical Class 4 (DCA) to Special Digest 1, Table F2.

**3. Reinforcement**

- Reinforcement to BS4449
- Scheduling, dimensioning, bending and cutting to BS8666
- Cage to be tack welded and/or tied with 17 gauge annealed tying wire.

**4. Manufacture**

- Manufactured to BS EN 13369: 2013
- Tolerances to BS EN 13369: 2013, Clause 4.3.1.1
- Finishing:
 

Class	Underside	Top	Sides
	Wood Finish	A	A
- Marking: Units shall be indelibly marked to show:
  - unit reference
  - cast date
  - contract number or name
  - unit weight

**5. Design**

- Concrete design to EC2
- Design Loading: Soil density = 20kN/m<sup>3</sup>. Surcharge of 10kPa & h<sub>0</sub> = 0.72
- P. P. McCann have designed the concrete units only, the stability of the support conditions should be checked by the overall scheme designer.
- Design Life = 100 years.

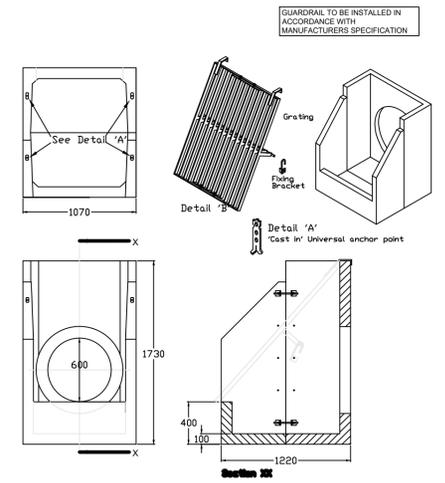
Min Cover	Cover block size (mm)	Min cover (mm)	Max cover (mm)
All faces	35	30	40

**Exposure**

Exposure	XC-S4	XD1	XF4
All faces			



ALTHON 2PHDST A SILT TRAP



- NOTES:**
- 2PHDST Specification Information**
- Opening in back wall cast to suit outside diameter of the pipework
  - 2PHDST A suitable for pipework up to 600mm ID Twinwall or Concrete

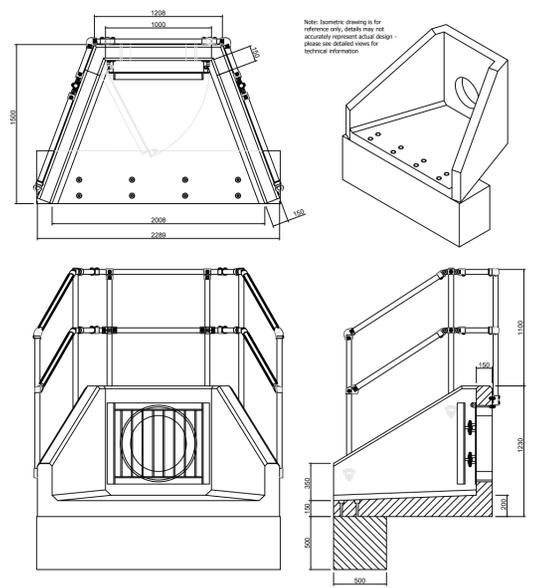
**Althon 2PHDST Silt Trap Installation**

Units should be bedded on minimum 100mm of semi-dry concrete. Sit the headwall level or with a slight fall 1:50 from pipe to spill mouth.  
 Material: Reinforced Concrete  
 Weight approximately 1350kg  
 All dimensions in mm

HEADWALL S35



ALTHON SFA 10C HEADWALL 500x500 TOE WITH 525 OUTFALL SAFETY GRILLE AND 3 SIDED KEE KLAMP



**NOTES**

- All dimensions in mm
- All measurements ± 1mm
- Specification Information
- Opening in back wall cast to suit outside diameter of the pipework
- Advert level of pipe can be set to your specification.
- Headwall Installation
- Units should be bedded on minimum 300mm thick well compacted Class 6A<sup>+</sup> selected well or good granular material.
- Headwall of concrete documents for Highway Works: Volume (MCHW1) (Specification for Highway Works, Series 600 (Nov 09)).
- At 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/m<sup>3</sup>+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
- Mix ref: Self compacting DCA/1004 R6
- B. Lifting strength based on 2 cubes = 20N/mm<sup>2</sup>
- C. Characteristic 28 day cube strength = 50N/mm<sup>2</sup>
- D. Concrete provides Design Chemical Class 4 (DCA) to special Digest 1, Table F2.
- Reinforcement
- Reinforcement to BS EN 13369
- B. Scheduling, dimensioning, bending & cutting to BS8666
- C. Cage to be machine tied with steel wire.
- Manufacture
- Manufactured to BS EN 15258:2008 precast concrete products - Retaining wall elements, Factory Production Control certificate number: 0986-CR-050448 & BS EN 13369
- B. Tolerances to BS EN 13369 clause 4.3.1.1
- C. Finishing:
 

Class	Underside	Top	Sides
	Wood Finish	A	A
- D. Marking: Units shall be indelibly marked to show:
  - Model reference code
  - Cast 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/m<sup>2</sup>
- D. Weight of soil = 18kN/m<sup>3</sup>
- E. Angle of internal friction = 30 Deg.
- F. Design Life = 100 years

Minimum Cover	Cover block size (mm)	Min cover (mm)	Max cover (mm)
All faces	35	30	40

**Exposure**

Exposure	XC-S4	XD1	XF4
All faces			

**Outfall Safety Grille**

Reinforced steel to be: BS EN 10025 S275  
 1. All mild steel to be hot dipped galvanized after fabrication.  
 2. Galvanizing to BS EN: 1461  
 3. Welding to BS EN 1011:2001  
 4. Hinged on one side with padlock facility  
 5. Weight approx: 7kg

HEADWALL S18 and S34

C1	CONSTRUCTION ISSUE	JH	JM	10/01/25
P1	FIRST ISSUE	JM	MH	26/06/24
REV	AMENDMENT	BY	CHKD	DATE

CLIENT  
 NIGEL KAY HOMES LTD.

PROJECT  
 DALZELL STREET MOOR ROW

DRAWING TITLE  
 SUDS DETAILS SHEET 2

**Beckwith & Hanlon Consulting Engineers Limited**  
 F22 Willow Court, Marquis Court, Team Valley Trading Estate, Gateshead, NE11 0RU  
 tel: 0191 273 7582

SCALE	NTS	BY	JH	CHECKED	JM	DATE	JUNE '24
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DRAWING NO.  
 24-011-237

STATUS	CONSTRUCTION	REV	C1
		SIZE	A0