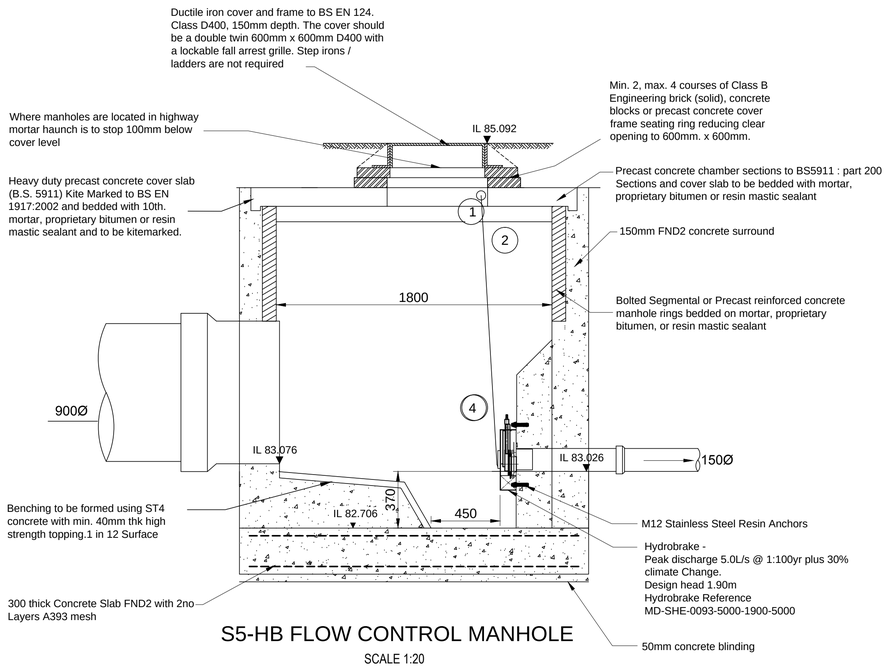
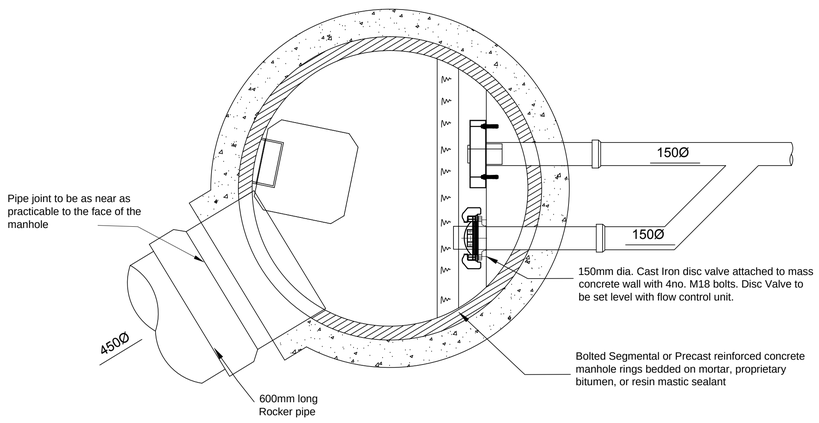


S5-HB FLOW CONTROL MANHOLE

SCALE 1:20



TYPICAL PLAN OF FLOW CONTROL MANHOLE
<2.4m Depth
S5-HB

Reference Points

1. Operating Rod to be positioned so cover cannot be replaced whilst the disc valve in open position
2. Guides for operating rod to be attached to cover slab in accordance with suppliers recommendations
3. Operating rod, Express Valve Services Limited, constructed from mild steel to BS 4360 (Grade 43A), to be positioned in manhole to allow operation of disc valve.
4. 150Ø ID Express Valve services Limited 'Disc Flushing Valve, attached to headwall with 4no 18Ø bolts. Outlet invert to be set level with vortex flow control unit invert.

NOTES

1. DO NOT SCALE - Use figured dimensions only.
2. All dimensions shown are in millimetres unless otherwise stated.
3. The Contractor is to verify all dimensions on site before commencing work or preparing shop drawings.
4. This drawing is to be read in conjunction with all Engineers and Architects drawings and specifications.
5. 100 & 150 dia. Vitrified Clay pipes to be a strength of FH40kN/m. & 225 dia. pipes to be a strength of FH45kN/m. to BS. EN295-1, (kitemarked), Hepworth.
6. Private Plastic drainage to be Osma Plastic Drainage, kitemarked, to BS. 4660:2000 & BS. EN1401-1:1988.
   Private Plastic structural wall sewer pipes to be Osma Plastic Drainage to BS. EN13476-1/2 and WIS-4-35-01. Kitemarked.
   - Plastic pipes less than 500mm. dia. shall be a nominal short term ring stiffness not less than 8kN/m². (SN8).
   - Plastic pipes greater than 500mm. dia. shall have a nominal short term ring stiffness not less than 2kN/m². (SN2), unless supported by design calculations.
   - Plastic chambers & rings to BS. EN13598-1and 2. Kitemarked.
   - Drainage pipes to be laid in maximum 3m lengths.
7. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
8. All pipe connections at manholes to be soffit to soffit.
9. Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
10. All adoptable sewer works and materials to be in accordance with "Sewer For Adoption 6th Edition", The Relevant British /European and Yorkshire Water's Standards / Requirements / Addendum and KITEMARKED.
11. Manhole Covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in Highways. Refer to manhole schedule for all other Class of manhole covers.
12. Filled ground must be filled and consolidated under supervision and to the satisfaction of YW. before any sewer works are carried out.
13. Yorkshire Water is NOT obliged to accept filter drain / land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to disposal of the filter drainage / land drainage runoff.
14. Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshire Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a load bearing slab should be fitted above the cover slab to bring the size down to 600x600mm for the Yorkshire Water specified size. Refer to Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes.
15. Sewers must have 5 meters clearance from trees and hedges. Also refer to SFA 6th Ed Figure 2.3 for restrictions on tree planting adjacent to sewers.
16. Sewers to be laid in Class 'S' bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in none vehicular access areas) then a concrete slab should be provided above granular bed and surround. Refer to drainage details.
17. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
18. The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
19. Yorkshire Water's Policy is not to accept Type 'C' brick manholes and 1050mm dia manhole rings. Instead it is preferred that Type 'B' manholes with 1200mm dia or 1500mm dia rings are used, with the opening sited over the the channel where depth of cover to pipe soffit is 1.0 - 1.5m.
20. Plastic Channel Sections in manholes are not acceptable and clayware is required.
21. All private sewers & manholes to be constructed in accordance with Building Regulations Part H.
    - 100Ø Private Foul Drains to be laid at 1:80 minimum where 1 toilet connected or 1:40 where no toilets are connected. 150Ø sewers are to be laid at a minimum of 1:150.
    - 150Ø Private Surface water drains to be laid at 1:150 minimum.
22. All gully connections to be 150 dia. at 1 : 150 fall.
23. Gully connections to be encased in concrete (ST4) 150th. where depth of cover is less than 1.2m. 18mm. Flexcell board to be provided at each pipe joint.

Rev	Description	Dr	Ch	Date
P1	PRELIMINARY ISSUE	RKG	JR	03.07.17

Client: D J Atkinson Construction Ltd

Project: PROPOSED RESIDENTIAL DEVELOPMENT
ELSECAR

Title: DRAINAGE DETAILS
HYDROBRAKE MANHOLE

J ROBERTS DESIGN LTD

Sheet Size: A1
Scale: As Shown
Drawn: RKG
Checked:
Approved:
Drawing Number: 1316/38
Rev: P1

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