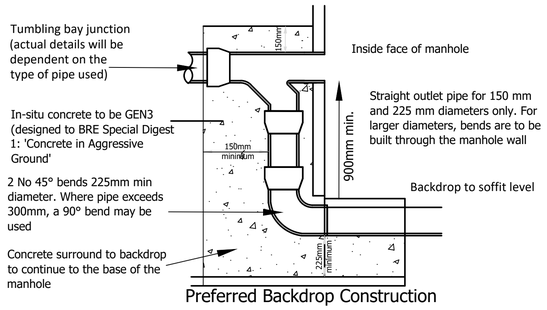
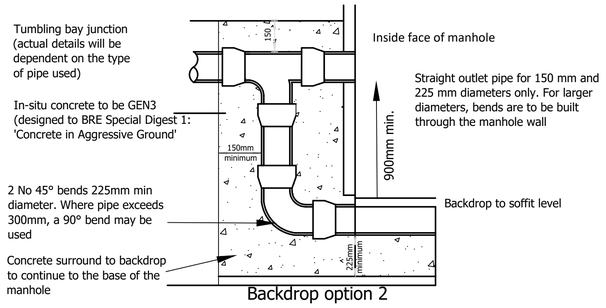
YWS REF : H-3-264-454

Backdrop details

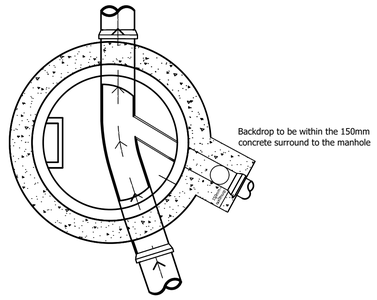


Preferred Backdrop Construction

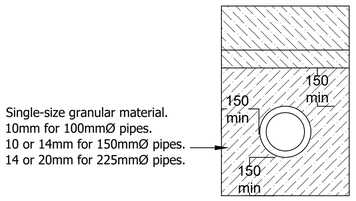


Backdrop option 2

Backdrop plan view



Pipe surround details

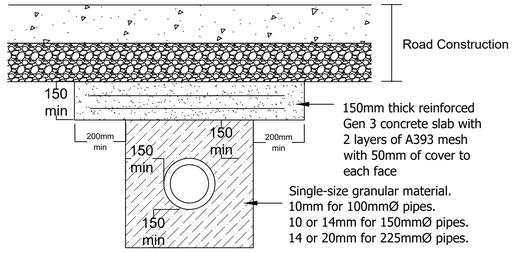


Typical detail through Class S Bed and Surround

Boxing/sheeting to be removed progressisively during placement of the main backfill above the pipe to prevent displacement of the granular material.

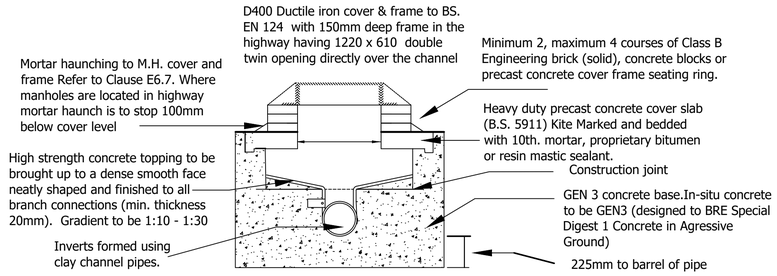
Sidefill material to be place evenly on both sides of the pipe taking care to work material under the lower quadrant of the pipe whilst ensuring the pipe is not lifted. Both sides of the trench should be filled simultaneously to avoid horizontal movement of the pipe

Trench fill under roads to conform with Highways requirements.



Typical detail through Class S Bed and Surround with concrete slab protection (to be used where sewer is less than 1200mm in depth in trafficked areas and less 900mm in un-trafficked areas)

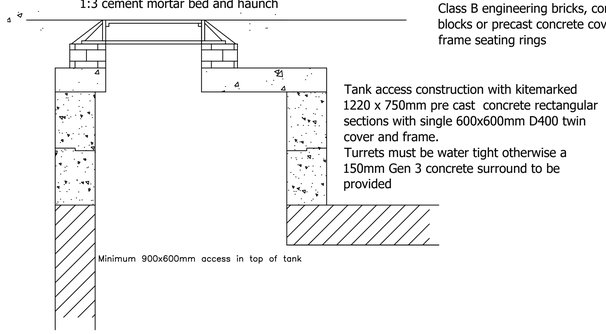
Shallow Manhole detail

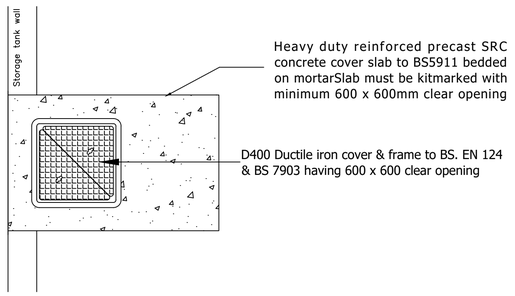


Section View

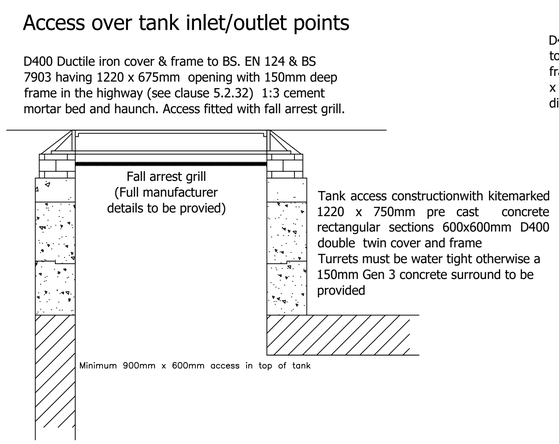
Tank access detail details

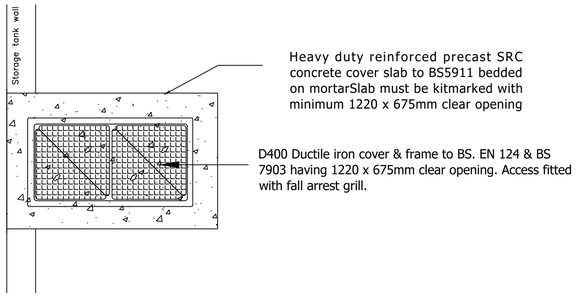
Standard tank access

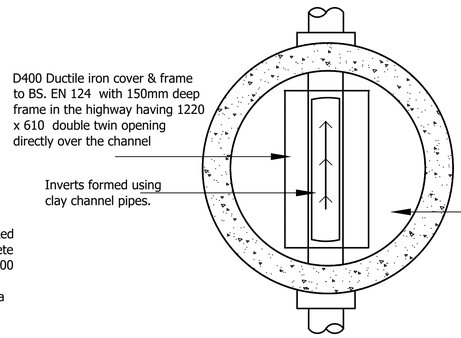




Access over tank inlet/outlet points





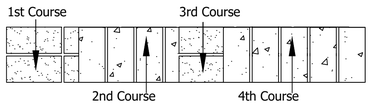


Plan View

Brickwork detail

All brickwork to be minimum 2 - maximum 4 courses of Class B engineering bricks constructed in English Bond

English Bond



Brickwork plan view

Yorkshire Water Notes

1. All adoptable sewer works and material to be in accordance with "Sewers for Adoption" 6th Edition, The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
2. 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.
3. Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
4. Yorkshire Water is **not** obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (**directly or in-directly**). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off.
5. 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 loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (**CPSA**), 'Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes.
6. Sulphate resistant cement (**C20-DC2**) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
7. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
8. "Sewers must have 5 metres clearance from trees and hedges (**please also refer to Figure 2.3 on page 33 in "Sewers for Adoption" 6th Edition for restrictions on tree planting adjacent to sewers)**".
9. 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 provide above granular bed and surround.
10. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (**Table A2**).
11. 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.
12. Yorkshire Water policy is not to accept Type "C" brick manholes and 1050mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia or 1500mm dia rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.
13. Adoptable plastic sewer pipes to be BSI Kitemarked (**certified to WIS 4-35-01** and BS/EN13476).Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channel in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the benching.
14. Where a B125 cover and frame has been approved, this **must not** be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.

For all clause and table references please refer to Sewers for Adoption 6th Edition

Developer Services

Title	Typical Construction Details
Drawing No	YW-DS-004
Revision	-
Date	01/01/2019

YorkshireWater