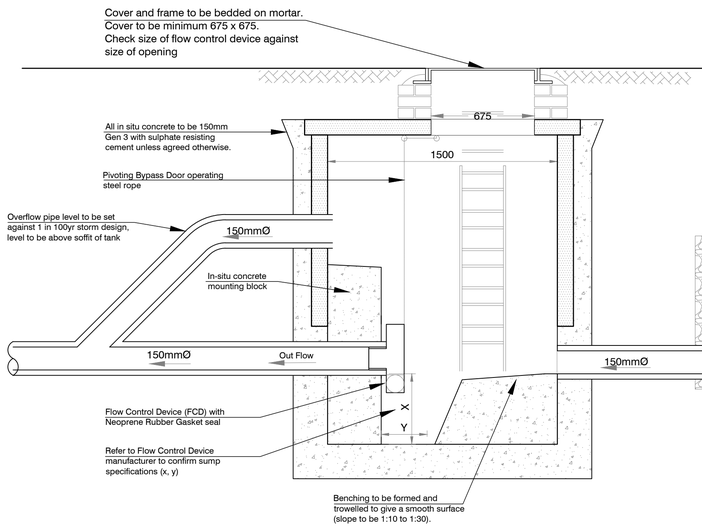
## Flow Control Chamber

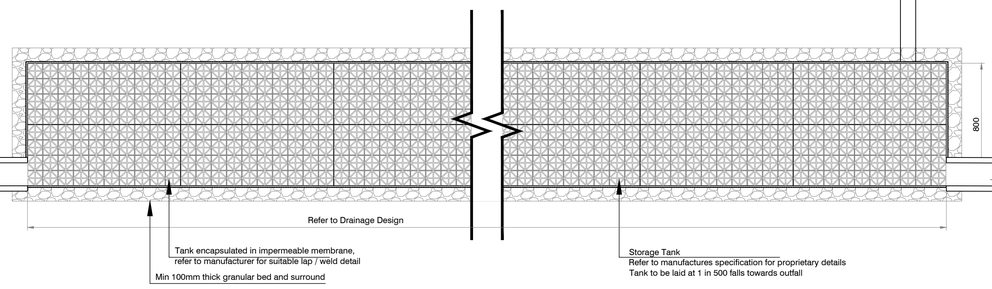



Flow Control Device - Aco Q-Brake
Max Discharge = 2.0 l/s
Operating Head = 1.0mm
Tank Size = 11.0 x 6.0 x 0.8 x = 52.8m³ Net

For details of manhole minimum size and flow control device size, refer to FCD manufacturers details

The attenuation volume is based upon a proprietary 'Vortex' control device.
The use of any other flow control will invalidate the design indicated on this drawing, which may lead to:
1. Adverse hydraulic effect, including loss of upstream storage efficiency and increased potential for flooding.
2. Increase in storage volume required
2. Different chamber dimension and construction requirements.

## Attenuation Tank




Note
Refer to manufacturers manifold details for connection of outlet pipes greater than 150Ø.
If maximum tank connection is 150Ø, multiple connections may be required. Cross sectional area of connecting pipes must be equal to or greater than the outlet pipe

Storage Tank
Refer to manufactures specification for proprietary details
Tank to be laid at 1 in 500 falls towards outfall

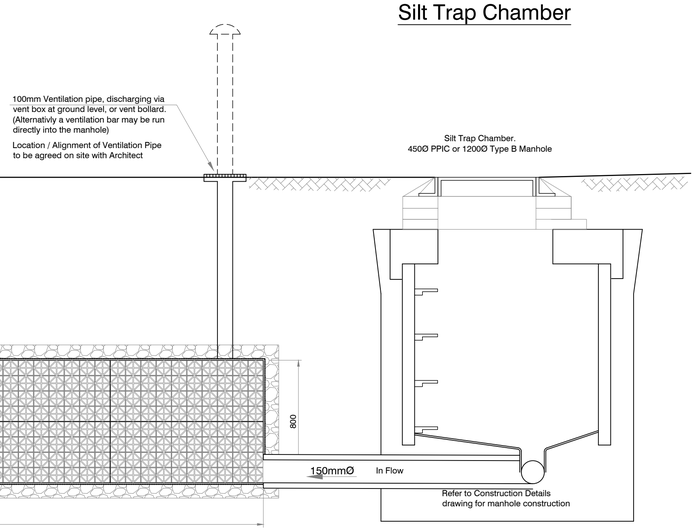
Unless otherwise specified, the storage tank design is based upon a unit size of 1.0 x 0.5 x 0.4m deep.

Alternative manufactures may be used as long as the nett volume of storage is achieved.
Refer to manufacturers details & specification.

Different crate models are used at different depths, refer to manufacturers details for specification

(Examples of manufactures unit sizes:
- Polypipe Polystorm Cell : 1.0 x 0.5 x 0.4 dp
- Wavin AquaCell : 1.0 x 0.5 x 0.4 dp

## Silt Trap Chamber




Refer to Drainage design for cover and invert levels

This drawing is to be read in conjunction with all other Engineers drawings. Any discrepancy should be reported to the engineers immediately

Refer to manufacturers requirements and recommendations for tank construction.

1. Exact arrangement of entry and exit manholes and other manifold elements to be confirmed following confirmation of manufacturers details and requirements.
2. Provide smooth level base to construct the system
3. Health and Safety - consider working in deep excavations.
4. Prevent heavy works traffic traversing over the tank.
5. Joints between adjacent sheets of membrane should be sealed correctly using proprietary welding techniques.
6. Backfill and cover fill should be compacted to specifications for highway works and should be Type 1 or Type 2 sub-base.
7. All backfill must be carefully compacted to avoid penetration of impermeable membrane.
8. In conditions of high water table / poor ground conditions refer to Engineers / Manufactures for special requirements.
9. This drawing must be read in conjunction with the site investigation report.
10. Before work commences, the contractor shall liase with all Statutory Authorities to determine the exact location of all apparatus and take all precautions deemed necessary to locate, protect and where necessary divert such equipment.
11. All manhole and drainage covers shall comply with BS.EN124. Manhole covers within block paved area and buildings shall be recessed. Cover strengths to be:-

- Class E600 in areas of heavy loading.
- Class D400 in heavy trafficked areas (roads, services yards).
- Class C250 Lightly trafficked areas ( car parks).
- Class B125 in landscape and non trafficked areas (min. 100mm deep frame).

12. All works to be carried out in accordance with Building Regulations 2002 Part H.
13. In areas of poor ground conditions and to prevent differential settlement, special foundation treatment is required. i.e. Type 1 layer with geogrid.
14. When units are placed below the groundwater table floatation may occur. To prevent this the weight in backfill must be greater than the uplift force, if this cannot be achieved a concrete slab above the units will be required.
15. With a high ground water table, shoring and pumping of inflows required to prevent collapse of excavation

| REV | DESCRIPTION | BY | DATE |
|---|---|---|---|

CTSDESIGN
CONSULTING ENGINEERS
23 LONGFORD CLOSE
BIRMINGHAM B32 4JJ
WWW.CTSDESIGN.CO.UK
INFO@CTSDESIGN.CO.UK

CLIENT
Evelyn Court Care Ltd

PROJECT
Evelyn Court
Smalley, DE7 6DY

PHASE
PLANNING

| DRAWN BY | DATE |
|---|---|
| DMcC | 07.07.23 |
| CHECKED BY | DATE |
| | |

SCALE
1:20 @ A1

DRAWING
Drainage Attenuation Tank Details

| DWG No | REV |
|---|---|
| CS220908 - 105 | |