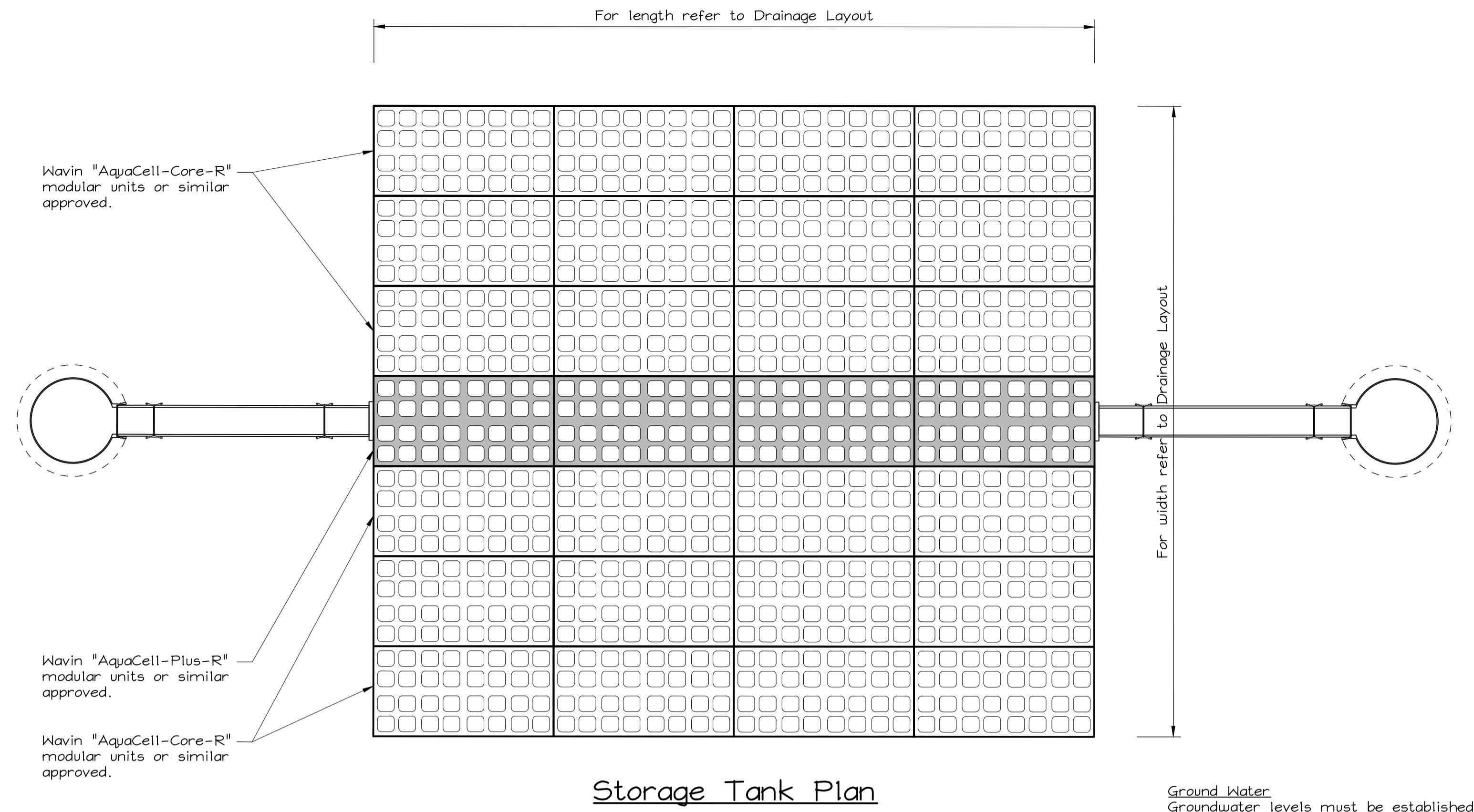


#### General Notes

- All concrete used in drainage works shall comply with BRE Special Digest SD1 for the following aggressive conditions in the ground:
- Design sulphate class DS-1  
Aggressive chemical environment class A-2  
Design concrete class DC-1 (TBC)  
No additional protective measures (APMs).
- The strength criteria for the specified standard mixes (ST4 etc) should also be observed. Concrete mixes should meet the most onerous design criteria between strength and resistance to chemical attack.
- Pipes and channels to be either:  
Concrete to BS EN 1916 & BS 5911  
Extra Strength Vitrified Clay to BS EN 295  
Unplasticised PVC to BS EN 1482
- All flexible pipes in trafficked areas with less than 900mm cover to have concrete surround.
- All flexible pipes in gardens and planted areas with less than 600mm cover to have concrete surround.
- Backfill material to pipe trenches serving a car park area shall be selected and compacted in accordance with the Highway Authorities & Utilities Committee Specification for the Rehabilitation of Openings in Highways – June 2005  
Acceptable materials (HAUC Specification Appendix A1)  
Class A – Graded granular  
Class B – Gravel  
Class C – Coarse/medium/granular  
Compaction to be in accordance with HAUC Specification Appendix A8).
- Beneath non-trafficked areas backfill shall be Type B
- Manhole covers and frames are to be in accordance with BS EN124:  
Class D400 for carriageways  
Class B125 for footways, pedestrian areas & car parks  
Class A15 for areas only subject to pedestrians.
- The minimum size of any manhole serving a sewer (i.e any drain serving more than one property) should be 1200mm x 675mm rectangular or 1200mm diameter.
- Where drainage passes within 300mm of the underside of the floor slab, concrete protection is required. Greater than 300mm, granular bed and surround 100mm thick is to be used.



#### Installation of tank/geomembrane.

Place and compact a 100mm thick bedding layer of coarse sand. The base should be level and free of any undulations. Line the base and sides of the excavation with a 300g needle punched non-woven protective geotextile before placement of an impermeable geomembrane (minimum 1.0mm thick).

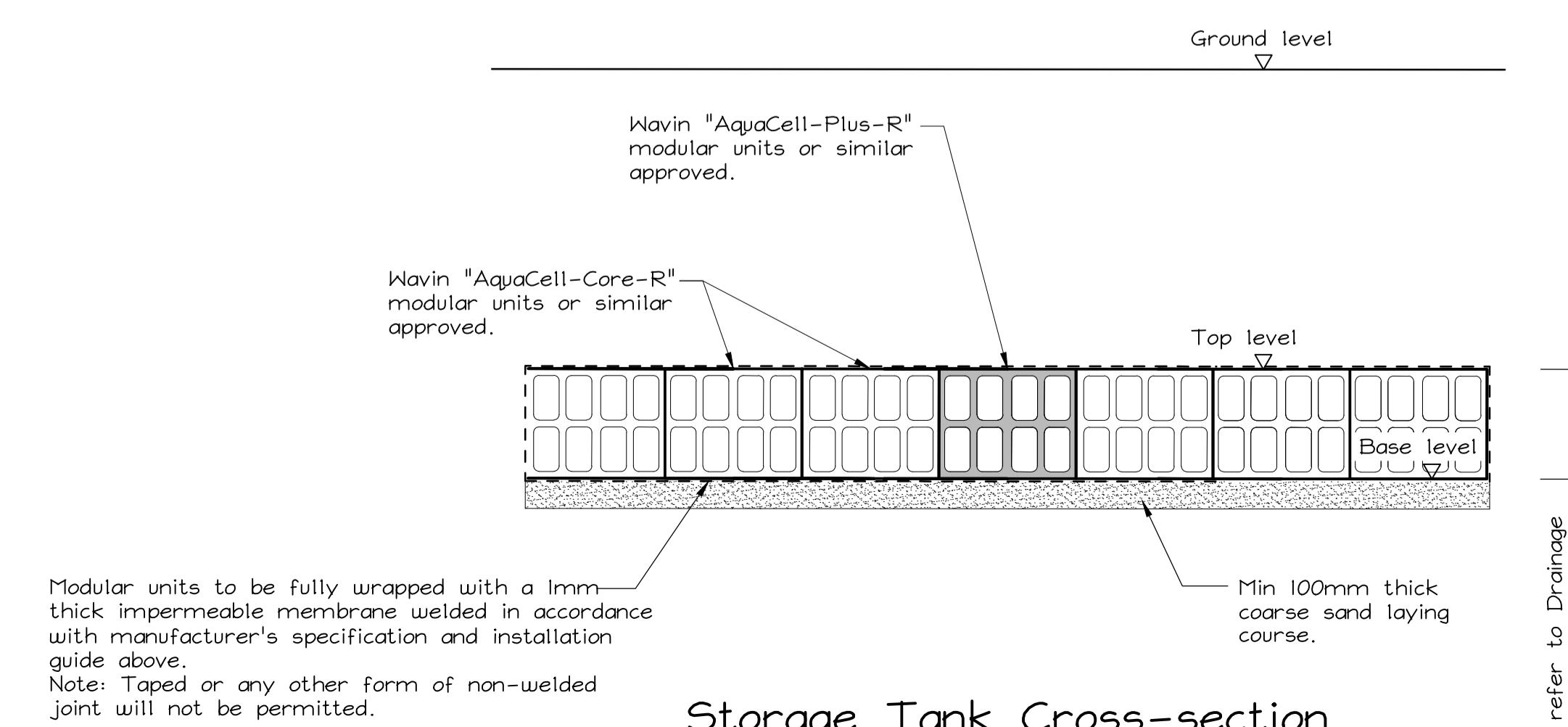
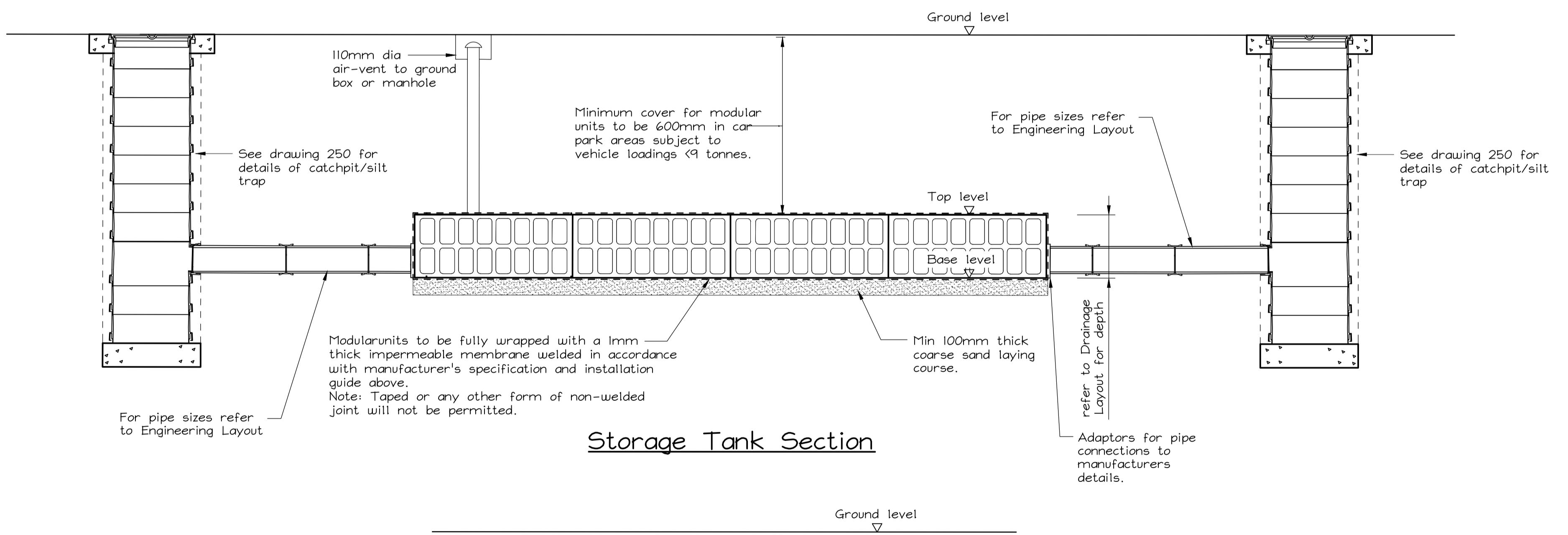
The contractor must seal the joints by wedge welding in accordance with the connecting pipework or adapters.

To ensure that the integrity of the geomembrane has been maintained, it is recommended that an inspection of the material is carried out, and welded joints are air tested in accordance with Ciria 698 Site Handbook for the Construction of SUDS.

If water is present, it is recommended that the excavation depth is over dug by 200mm, with a base layer of 'TERRAM', overlaid by 150mm of compacted 'Type 1 road stone', topped off with a 50mm layer of pipe bedding. A sump should be excavated below the base layer of stone to allow the extraction of water via a drainage pump.

#### Ground Water

Groundwater levels must be established and reported to the Engineer. In attenuation and soakaway systems, where groundwater may be present, a buoyancy check should be undertaken by a qualified engineer to ensure that the imposed overburden pressure exceeds any uplift forces generated.



|  |                |             |
|--|----------------|-------------|
| A  | First Issue.   | JT 24.09.25 |
| Rev  | Description    | By Date     |
| KRYSYL ENGINEERING LTD<br>1 STATION ROAD SOUTH,<br>MERSTHAM,<br>SURREY<br>RH13 5EF<br>01737 333139 |                |             |
| Krystal<br>CONSTRUCTION  |                |             |
| Project<br>LAND AT:<br>GREENSLEEVES, TILTWOOD,<br>HOPHURST LANE, CRAWLEY<br>DOWN. RH10 4LL.        |                |             |
| Drawing Title<br>ATTENUATION TANK<br>DETAILS   |                |             |
| Drawing No.  | Revision       |             |
| 7684-252   | A              |             |
| Scale  | 1:20 @ A1      | Date        |
|  |                | SEPT 2025   |
| Drawing Status   | PRELIMINARY    |             |
| Drawn By   | Checked By     |             |
| JT   | KH             |             |
| Client   | TILTWOOD HOMES |             |