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The layout drawing and the accompanying schedule of products have been prepared only as an illustration.

The layout drawing illustrates a drainage system using Wavin's products. The schedule of products is merely an estimate of the Wavin products that might be needed to construct a drainage system in accordance with the layout drawing. The layout drawing should not be used for any other purpose. In particular, it should not be used as a plan for construction without further consultation with Wavin.

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OsmaDrain Key

A	MH	Max design loads added	10/10/22
Rev	By	Description	Date

Technical Design Department
Parsonage Way
Chippenhams
SN15 5PN
Tel (0844) 856 5165
Fax (01249) 766653
Email technical.design@wavin.co.uk

Project
Tank 2,
Clarendon Phase 3,
London

Client
Foundation Developments

W257-FDL-D4-00-DR-C-52-0901

Drawing No	Revision	Scale
SF22490 - Tank 2	A	1:20
Drawn by	Checked by	Date completed
MH	-	03/10/2022
Sheet no	1 of 1	

INSTALLATION METHOD

- Excavate the trench to the required depth ensuring that the plan area is slightly greater than that of the Soakaway/Attenuation tank - minimum 300mm to allow for compaction.
- Lay 100mm bed of coarse sand/gravel, level and compact. Alternatively 75mm of Type 1 (Type 3 if for infiltration) and a 25mm sand blinding layer would also be suitable.
- Lay the geotextile over the base and up the sides of the trench.
- Lay the geomembrane on top of the geotextile over the base and up the sides of the trench (if being used for Attenuation).
- Lay the AquaCell units parallel with each other. In multiple layer applications, wherever possible, continuous vertical joints should be avoided. AquaCell units can be laid in a 'brick bonded' formation (i.e. to overlap the joints below). For single layer applications use the AquaCell Clips and for multi layers use the AquaCell Clips and the AquaCell Shear Connectors (vertical rods).
- Place the flange adaptors/ socket adaptors into position and fix using self-tapping screws.
- Wrap the geomembrane around the AquaCell structure and seal to manufacturers recommendations. Cut appropriate holes for flange/pipe connections.
- Wrap and overlap the geotextile covering the entire AquaCell structure, to protect the geomembrane.
- Lay aggregate or coarse sand between the trench walls and the AquaCell units and compact.
- Lay 100mm bed of aggregate or coarse sand over the geotextile and hand compact. Backfill with suitable backfill material.

NB: A storage tank must be vented, and it is recommended that one vent pipe, 110mm in diameter is provided per 7,500 square metres of impermeable catchment area on a site.

GEOMEMBRANE/GEOTEXTILE SPECIFICATION

Geomembrane:

- A least 0.5mm thick Polypropylene or 0.75mm LLDPE geomembrane is recommended and joints should be sealed using proprietary welding techniques.

Geotextile:

- 300gsm and 2mm thick non-woven with sewn or glued joints.

It is crucial that the specified material will:

- Withstand the rigours of installation
- Resist puncture
- Resist multi-axial elongation stress and strains associated with settlement
- Resist environmental stress cracking
- Resist damage from in ground contaminants
- Remain intact for the full design life of the AquaCell installation

Geomembranes with a thickness less than 0.5mm thick Polypropylene or 0.75mm LLDPE are unlikely to meet these criteria and are therefore not recommended for use with the AquaCell system in this application

BACKFILL SPECIFICATION

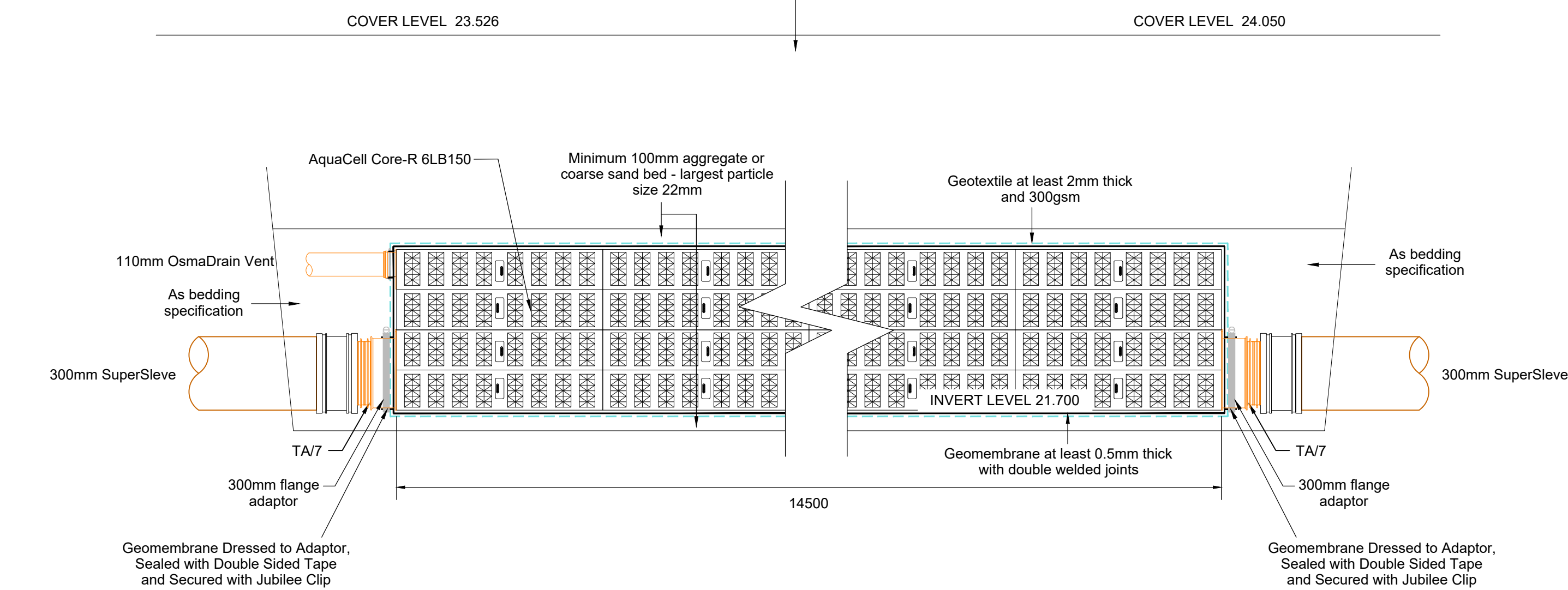
Backfill to be compacted granular material Type 1 (or Type 2). Tracked excavators (not exceeding 21 tonnes weight) should be used to place fill over the AquaCell units.

At least 300mm of fill should be placed before Construction Traffic delivering the backfill are allowed to traffic over the units.

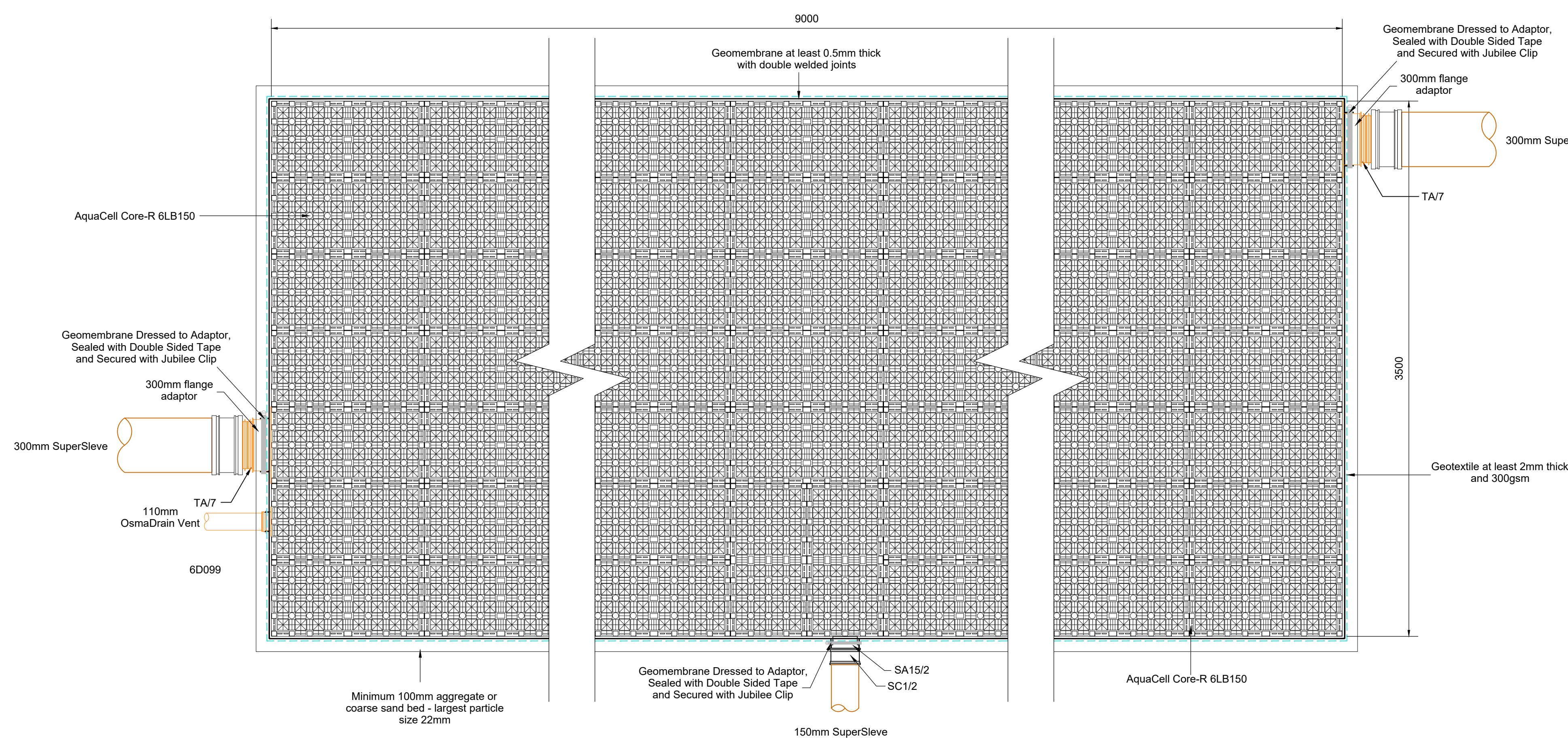
Compact in 150mm layers after the initial 300mm layer. Compaction Plant should should not exceed 2300kg/m width.

TYPICAL LONG SECTION

Compacted Granular Material
Tracked excavators (not exceeding 21 tonnes weight) should be used to place fill over the AquaCell units
At least 300mm of fill should be placed before construction traffic delivering the backfill are allowed to traffic over the units
Compact in 150mm layers after the initial 300mm layer
Compaction plant should not exceed 2300kg/m width



TYPICAL PLAN



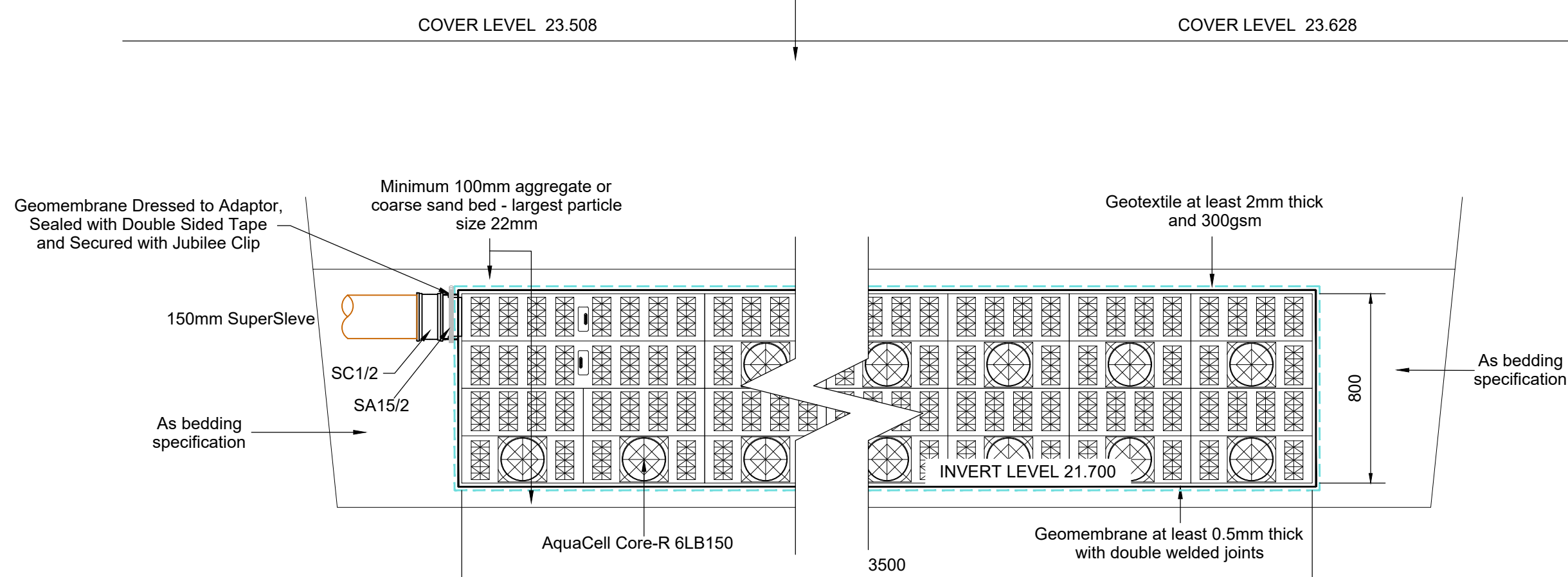
On the advice of structural engineers and CIRIA C680, it is preferred that cranes do not set up over geocellular tanks or have the crane outriggers apply any loads to the lateral faces of the tank. If it cannot be avoided or a crane needs to traffic over the units then a site-specific assessment should be carried out by a qualified structural and/or geotechnical engineer using the below design loads.

The following information indicates the maximum design loads of AquaCell Core-R 6LB150

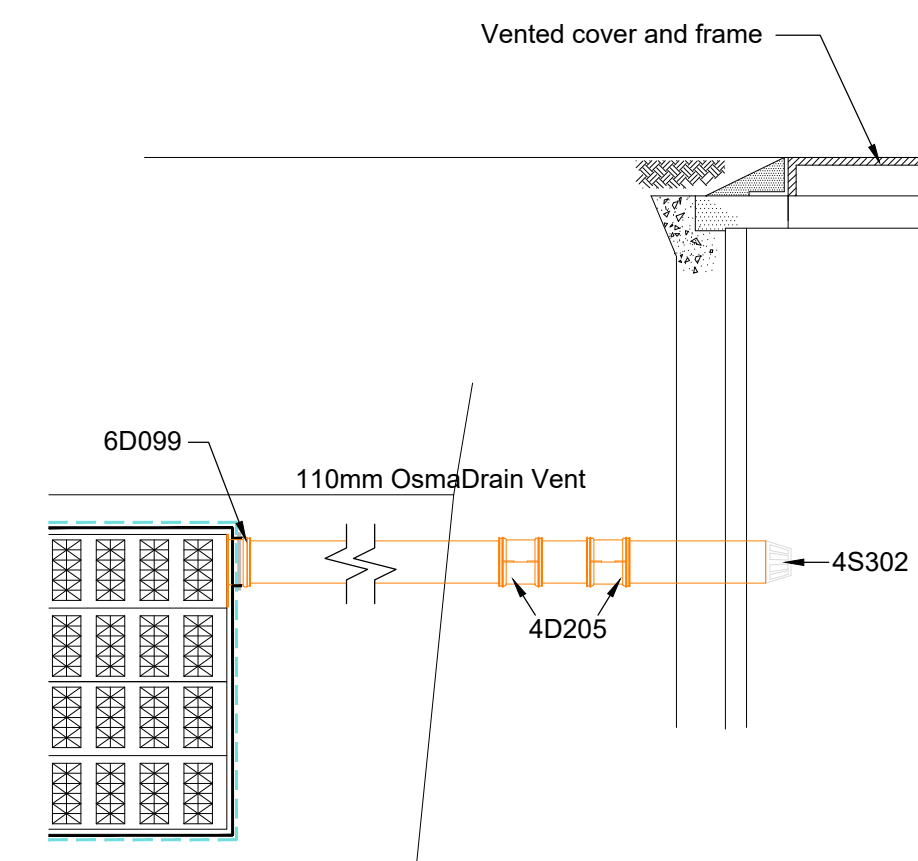
Maximum Vertical loading on top face of the AquaCell = Ultimate Compressive Strength / Material Factor of Safety 2.75
639kN/m² / 2.75 = **232.36kN/m² - Maximum Vertical load**
Maximum Lateral loading on side face of the AquaCell = Ultimate Compressive Strength / Material Factor of Safety 2.75
115kN/m² / 2.75 = **41.81kN/m² - Maximum Lateral load**
Vertical Deflection= **1mm/87.9kN/m² of load**
Lateral Deflection= **1mm/16.6kN/m² of load**
Maximum Vertical Deflection= **5mm**
Maximum Lateral Deflection= **10mm**

TYPICAL CROSS SECTION

Compacted Granular Material
Tracked excavators (not exceeding 21 tonnes weight) should be used to place fill over the AquaCell units
At least 300mm of fill should be placed before construction traffic delivering the backfill are allowed to traffic over the units
Compact in 150mm layers after the initial 300mm layer
Compaction plant should not exceed 2300kg/m width



TYPICAL VENT THROUGH MANHOLE



SITE PLAN - NTS

