



- GENERAL NOTES**
1. Do Not Scale
 2. The contractor is to check and verify all buildings and site dimensions and levels, including sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
 3. Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work
 4. This drawing is to be read in conjunction with and checked against all other drawings, Engineering Details, Specification and any structural, geotechnical or other specialist document provided.
 5. Any anomaly or contradiction between any of the above is to be reported to Mr T. Pricor.
 6. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.

A	09/05/25	SAB Comments applied		MP
-	17/05/22	First Issue		ACM
REV:	DATE	DETAILS		BY. CHK.
AMENDMENTS				

CLIENT:

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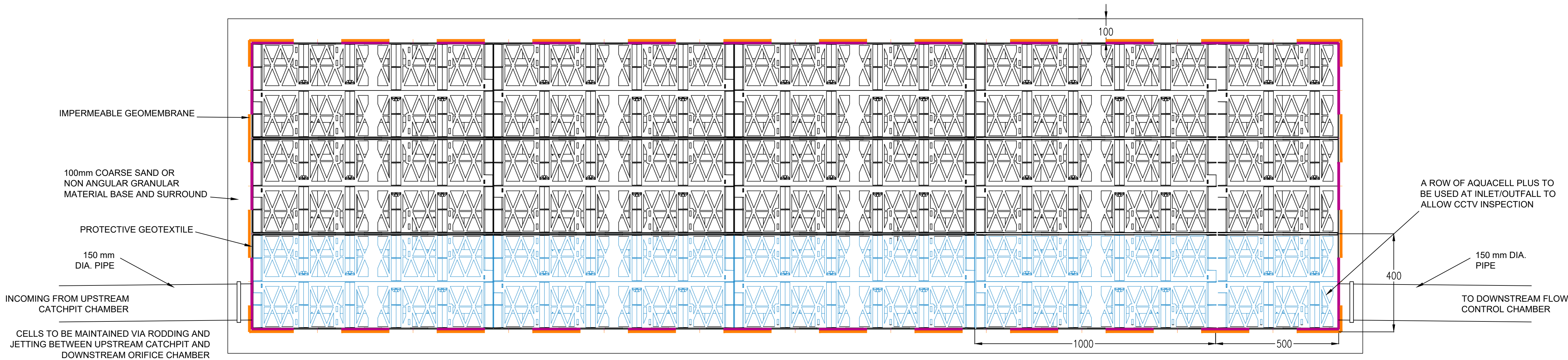
PROJECT:

**Mr T Pricor
Tregam Road
Langstone**

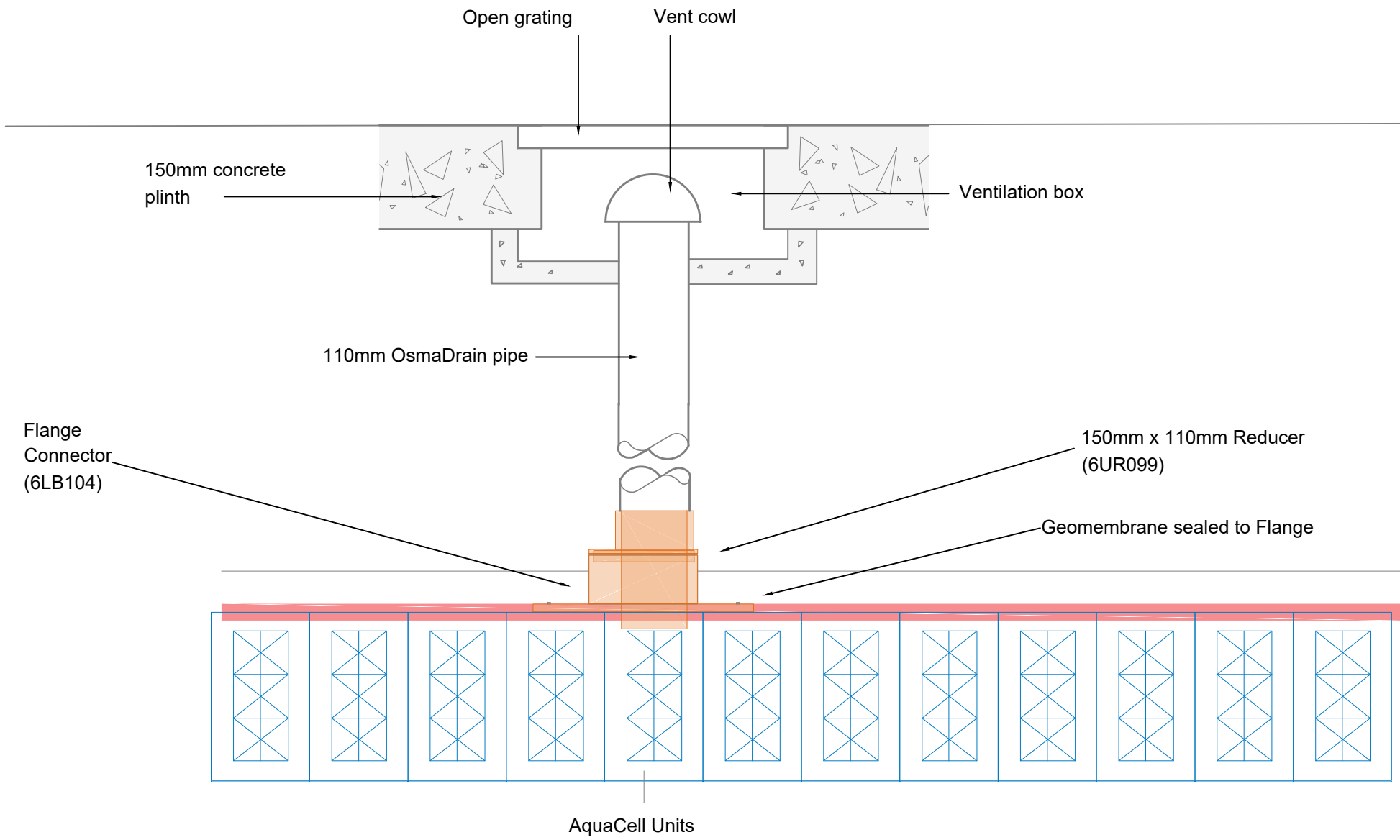
DRAWING TITLE:

Impermeable Areas Plan

DRAWN:	CHK:	STATUS:		SCALE:
ACM	SJD	Information		1:250 @ A3
DATE:		JOB NO.	DRG. NO.	REV.
May-22		2309	102	A



CELLULAR ATTENUATION DETAIL



NOTE: It is recommended that all connections and air vent installations in storage applications (using geomembrane) are made using a Flange Adaptor.

Adhesive or double sided tape should be used between the geomembrane and the flange plate to ensure a watertight seal.

NOTE: It is recommended that one vent pipe, 110mm in diameter, is provided per 7,500 square meters of impermeable catchment area on a site. Please contact Wavin Technical Design for further details.

TYPICAL AIR VENT DETAIL

GENERAL NOTES

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2. Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work.
3. This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specifications and any structural, geotechnical or other specialist document provided.
4. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.
5. Where trees adjacent to the highway are proposed, root barriers of an approved type are required to prevent future structural damage to the highway.
6. Any anomaly or contradictions between any of the above is to be reported immediately to PHG Consulting Engineers.

DRAINAGE NOTES

1. All private drainage shall be in accordance with BS8301 and relevant sections of Approved Document H of the Building Regulations
2. The contractor is to check the level of existing sewers being used as outfalls or crossing proposed drainage runs PRIOR to laying any pipes. Any discrepancies are to be reported to PHG Consulting Engineers.
3. Private house drainage will be flexibly jointed plastic or clay pipework. Diameter 100mm unless shown otherwise.
4. All connections for House Drainage shall be 100mm unless noted otherwise and must extend 500mm behind the back of footway/homezone road. All connections when laid shall be plugged, protected as necessary and marked with a stake for future use.
5. For private drains where cover to pipes is less than 900mm in vehicular areas or 500mm in other areas protection in the form of a 100mm thick concrete pad shall be provided over the pipe granular surround.
6. Where pipes pass through screen walls, footings or retaining walls, inlets are to be provided over. Under buildings pipes shall be surrounded with 150mm thickness of granular material. Where drains pass within 1m of buildings the wall foundation shall be taken down below the invert of the pipe.
7. Where drains do not exceed 600mm deep, plastic or clay access fittings minimum diameter 225mm shall be used. Elsewhere proprietary plastic or precast concrete inspection chambers shall be used. Unless shown otherwise FW inspection chambers are to be 750mm below dpc level and SW chambers and rodding eyes to be 600mm below dpc.
8. All gullies and rainwater downpipes connected directly to drains are to be roddable.
9. All drainage shall be laid upstream and each run between manholes shall be laid complete prior to backfilling. Where this is not practical trial holes or other means of identifying the line and level of services shall be carried out prior to works commencing.
10. All branch drains, or connections, are to discharge to the collectors obliquely, and in the direction of the main flow.
11. All low spots on hardstanding areas to have yard gullies unless permeable paving is used.
12. The developer must self-vet and certify that the design criteria, material standards and workmanship specifications for the proposed adoptable sewers are in accordance with those set out in "Sewers for Adoption" 7th Edition, A Section 106 application to connect must be made to the water authority, the developer shall give 21 days' notice prior to connection, and the works may only be undertaken by a SSIP accredited contractor.
13. The foul sewers must achieve a minimum flow velocity of 0.75 m/s at one third design flow or when the sewer has a nominal internal diameter of 100mm or where 10 properties or less are connected the sewer must be laid at minimum of 1:80. Where the sewer has a nominal internal diameter of 150mm and at least 10 dwelling units are connected the sewer will be laid at a minimum gradient of 1:150. The maximum gradient a sewer can be laid is 1:5.
14. The surface water sewers must achieve a minimum flow velocity of 1 m/s at pipe full flow or when the sewer has a nominal internal diameter of 100mm the sewer must be laid at minimum of 1:100. Where the sewer has a nominal internal diameter of 150mm or greater the sewer will be laid at a minimum gradient of 1:150. The maximum gradient a sewer can be laid is 1:5.
15. All inspection chamber and manhole covers should adhere to BS EN 124 and be suitable for where the chambers and manholes are situated.
16. Where sewers are located in proximity or between buildings refer to Figures B.1 and B.2.

-	09.05.25	First Issue	MP	SJD
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MR. T. PROCTOR



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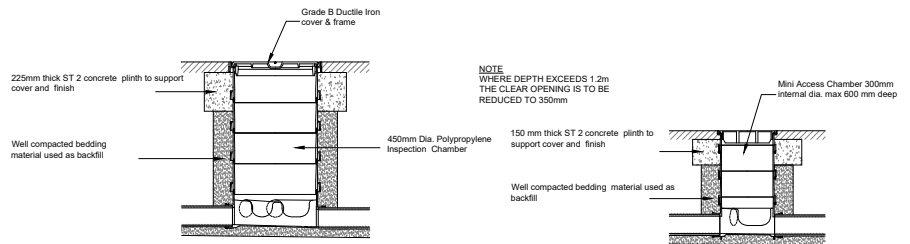
PROJECT:

TREGARN ROAD

DRAWING TITLE:

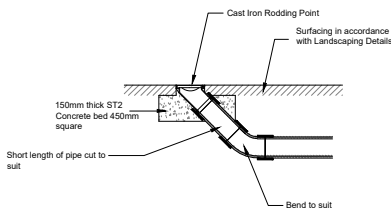
CELLULAR STORAGE
TYPICAL CONSTRUCTION DETAILS

DRAWN:	CHK:	STATUS:	SCALE:
MP	SJD	APPROVAL	1:250
DATE:	JOB NO.	DWG. NO.	REV.
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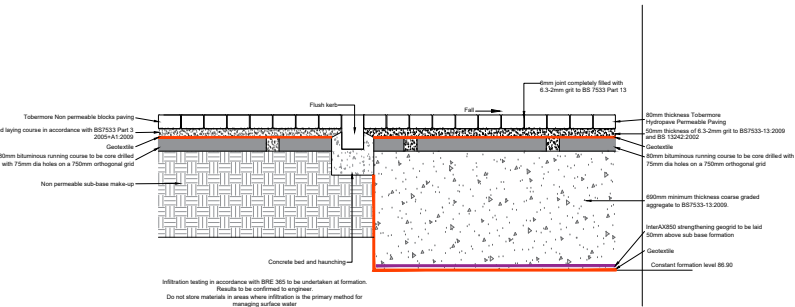


POLYPROPYLENE INSPECTION CHAMBER DETAIL
DEPTH NOT EXCEEDING 3.0m
(Traficked Areas)

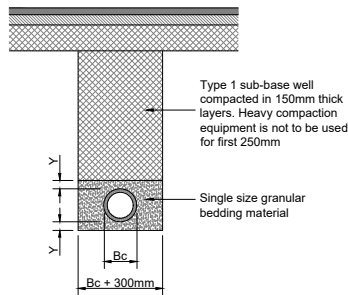
SHALLOW INSPECTION CHAMBER DETAIL
DEPTH NOT EXCEEDING 0.6m
(Hard landscape Areas)



RODDING EYE DETAIL
(Hard landscape Areas)



INTERFACE BETWEEN PERMEABLE PAVING AND NON PERMEABLE PAVING



CLASS S BED AND SURROUND
(Traficked Areas)

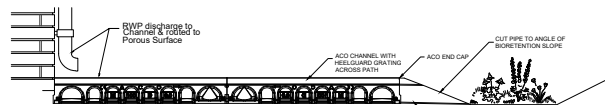
Dimension Y in machine-dug uniform soils:

Y = For sleeve jointed pipes a minimum of 50mm or $\frac{1}{4}$ Bc whichever is the greater; for socketed pipes a minimum of 100mm or $\frac{1}{4}$ Bc, whichever is the greater under barrels but not less than 50mm under sockets.

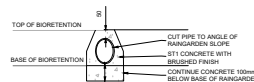
In rock or mixed soils containing rock bands, boulders, large flints or stones or other irregular hard spots:

Y = For sleeve jointed pipes a minimum of 150mm or $\frac{1}{4}$ Bc whichever is the greater; for socketed pipes a minimum of 200mm or $\frac{1}{4}$ Bc, whichever is the greater under barrels but not less than 150mm under sockets.

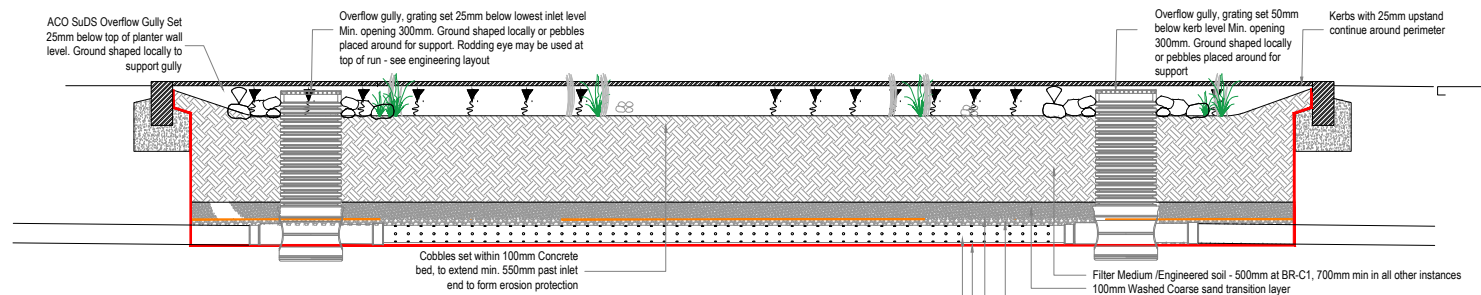
Selected fill should be readily compactable and free from timber, frozen material, vegetable and foreign matter and exclude hard lumps of clay retained on a 100mm sieve and stones retained on a 40mm sieve



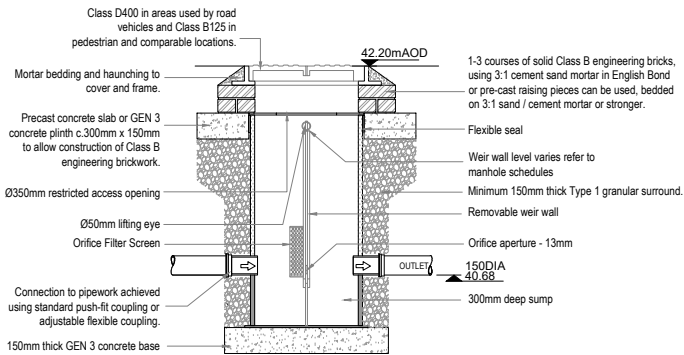
ACO CHANNEL OUTFALL TO RAINGARDEN - SECTION
SCALE 1:10



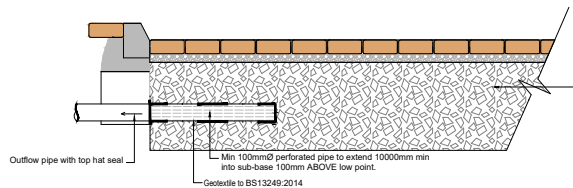
OUTFALL TO RAINGARDEN SECTION
SCALE 1:10



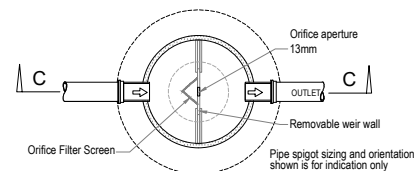
TYPICAL BIORETENTION LONG SECTION



ORIFICE CONTROL CHAMBER - SECTION C-C
WASP06102WW SERIES PREFABRICATED
ORIFICE FLOW CONTROL CHAMBER WITH INTERNAL WEIR WALL
(or similar approved)



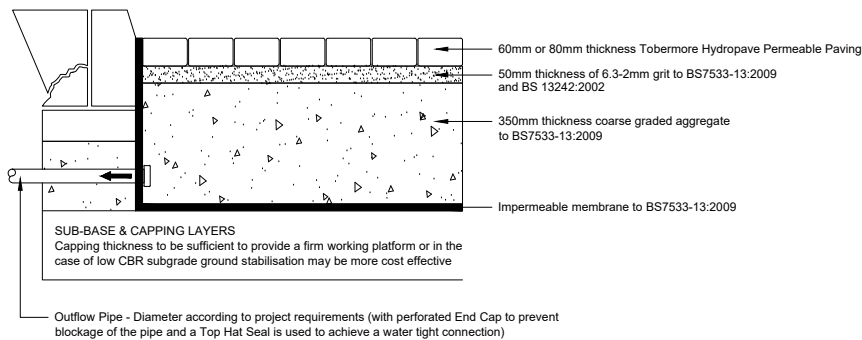
HYDROPAVE OUTLET DETAIL



PLAN VIEW ORIFICE CONTROL CHAMBER

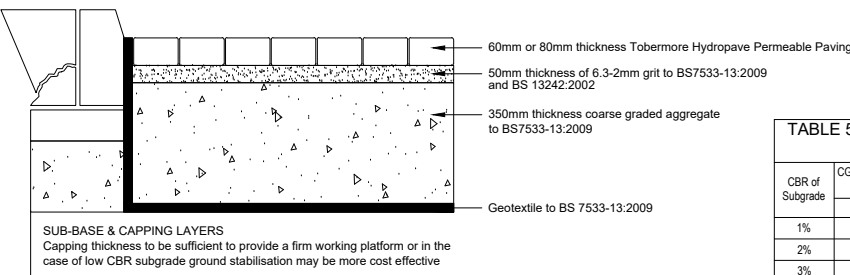
¹ FILTER MEDIUM FOR BIORETENTION AREAS - MINIMUM SATURATED HYDRAULIC CONDUCTIVITY SHOULD BE 200MM/H. THIS SHOULD BE CHECKED IN-SITU, USING THE RING INFILTRATION TEST METHOD AS DESCRIBED IN BS EN ISO 22282-5:2012. THIS ALLOWS FOR INITIAL CLOGGING RATES AND A 50% REDUCTION IN PERFORMANCE IN ACCORDANCE WITH CIRIA C357.

LOADING CATEGORY B 1-5% CBR
Conventional edge restraint



TOBERMORE CONCRETE PRODUCTS
ATTENUATION DESIGN
LOADING CATEGORY B 1-5% CBR

LOADING CATEGORY B 5% CBR
Conventional edge restraint



TOBERMORE CONCRETE PRODUCTS
INFILTRATION DESIGN
LOADING CATEGORY B 5% CBR

TABLE 5 - Capping or Coarse Graded Aggregate (CGA) Depths for permeable paved areas			
CBR of Subgrade	CGA Depth Increase for System A or System B (infiltrating) pavements ¹		Total thickness of capping material in the case of System B (detention) pavements
	Without Geogrid	With Geogrid	
1%	300	175	600 ²
2%	175	125	350
3%	125	100	250
4%	100		200
5%-15%	Use thickness in design details or GA drawings		150
¹ Note that the additional coarse graded aggregate values in this column can be applied, in the case of System C pavements, instead of the enhanced capping thickness shown			
² Refer to Engineer to confirm suitability			
Capping layer to be 6F1 or 6F2 to SHW 613 (May incorporate geogrid to reduce depth) - CBR VALUE TO BE DETERMINED ON SITE AND CONSOLIDATED TO 5% WHERE POSSIBLE			

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PROJECT:

Mr T Pricor
Tregam Road
Langstone

DRAWING TITLE:

SAB Construction Details

DRAWN:	CHK:	STATUS:	SCALE:
ACM	SJD	Information	NTS @ A3
DATE:	JOB NO.	DRG. NO.	REV.
May-22	2309	101	B