

NOTE: All ground levels to be confirmed by the architect prior to any work commencing on site.

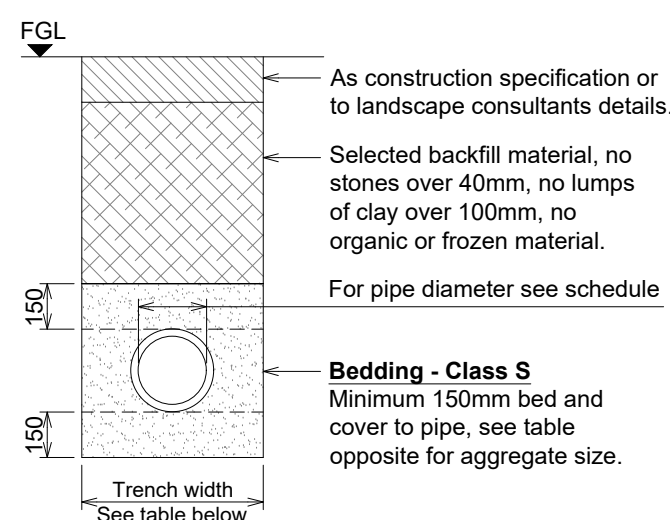
Manhole Ref.	Cover Level (m)	Invert Level (m)	Backdrop Invert Lvl (m)	Manhole Depth (m)	Manhole Type	Manhole Ø (mm)	Cover/Frame Grade	Remarks
MHS1.0	38.675	38.225	-	0.450	SIC	300	A15	-
MHS1.1	38.550	IN=37.825 OUT=37.825 SL=37.375	-	IN=0.725 OUT=0.725 SL=1.175	PCC Catchpit	600x450	B125	450mm deep sump
MHS2.0	38.550	38.100	-	0.450	SIC	300	A15	-
MHS2.1	38.550	37.998	-	0.552	SIC	300	A15	-
MHS3.0	38.950	38.500	-	0.450	SIC	300	A15	-
MHS3.1	38.850	IN=38.135 OUT=38.135 SL=37.685	-	IN=0.715 OUT=0.715 SL=1.165	PCC Catchpit	600x450	B125	450mm deep sump
MHS4.0	38.850	38.400	-	0.450	SIC	300	A15	-
MHS4.1	38.850	38.305	-	0.545	SIC	300	A15	-

Pipe Ref.	Pipe Length (m)	Pipe Ø (mm)	Pipe Material	Gradient (1 in ?)	Bedding	Remarks
PNS1.0	15.88	100	UPVC	39.7	Class S	-
PNS1.1	4.65	100	UPVC	60	Class S	-
PNS2.0	6.12	100	UPVC	60	Class S	-
PNS2.1	10.15	100	UPVC	60	Class S	-
PNS3.0	15.88	100	UPVC	43.5	Class S	-
PNS3.1	4.65	100	UPVC	60	Class S	-
PNS4.0	5.62	100	UPVC	60	Class S	-
PNS4.1	10.15	100	UPVC	60	Class S	-

Soakaway Ref.	Cover / Ground Level (m)	Inlet Level(s) (m)	Inlet Depth(s) (m)	Remarks
SA1	38.700	37.745	0.955	Soakaway constructed using Wavin Aquacell blocks or similar approved product (Individual block dimensions: L=1.0m x W=0.5m x D=0.4m)  Soakaway Structure Dimensions Length = 2.0m (2 Blocks) Width = 3.5m (7 Blocks) Depth = 1.2m (3 Layers of Blocks)  Inlet to be located at high level into soakaway structure
SA2	39.000	38.055	0.945	Soakaway constructed using Wavin Aquacell blocks or similar approved product (Individual block dimensions: L=1.0m x W=0.5m x D=0.4m)  Soakaway Structure Dimensions Length = 2.0m (2 Blocks) Width = 3.5m (7 Blocks) Depth = 1.2m (3 Layers of Blocks)  Inlet to be located at high level into soakaway structure

### Pipe Bedding - Class S

Areas not subject to vehicle loadings.  
Use in private gardens, landscaped areas etc.



Pipe Ø (mm)	Trench Width (mm)
100	450
150	450
225	600
300	600
375	750
450	750
525	900
600	900
750	1200
900	1350
1050	1500

Pipe surround material shall where required, be placed and compacted over the full width of the trench in layers not exceeding 150mm before compaction, to a finished thickness of 300mm above the crown of the pipe.

Where excavations have been supported and the supports are removed they shall be withdrawn progressively as backfilling proceeds in a manner that minimises the danger of collapse, all voids formed behind the supports are to be carefully filled and compacted.

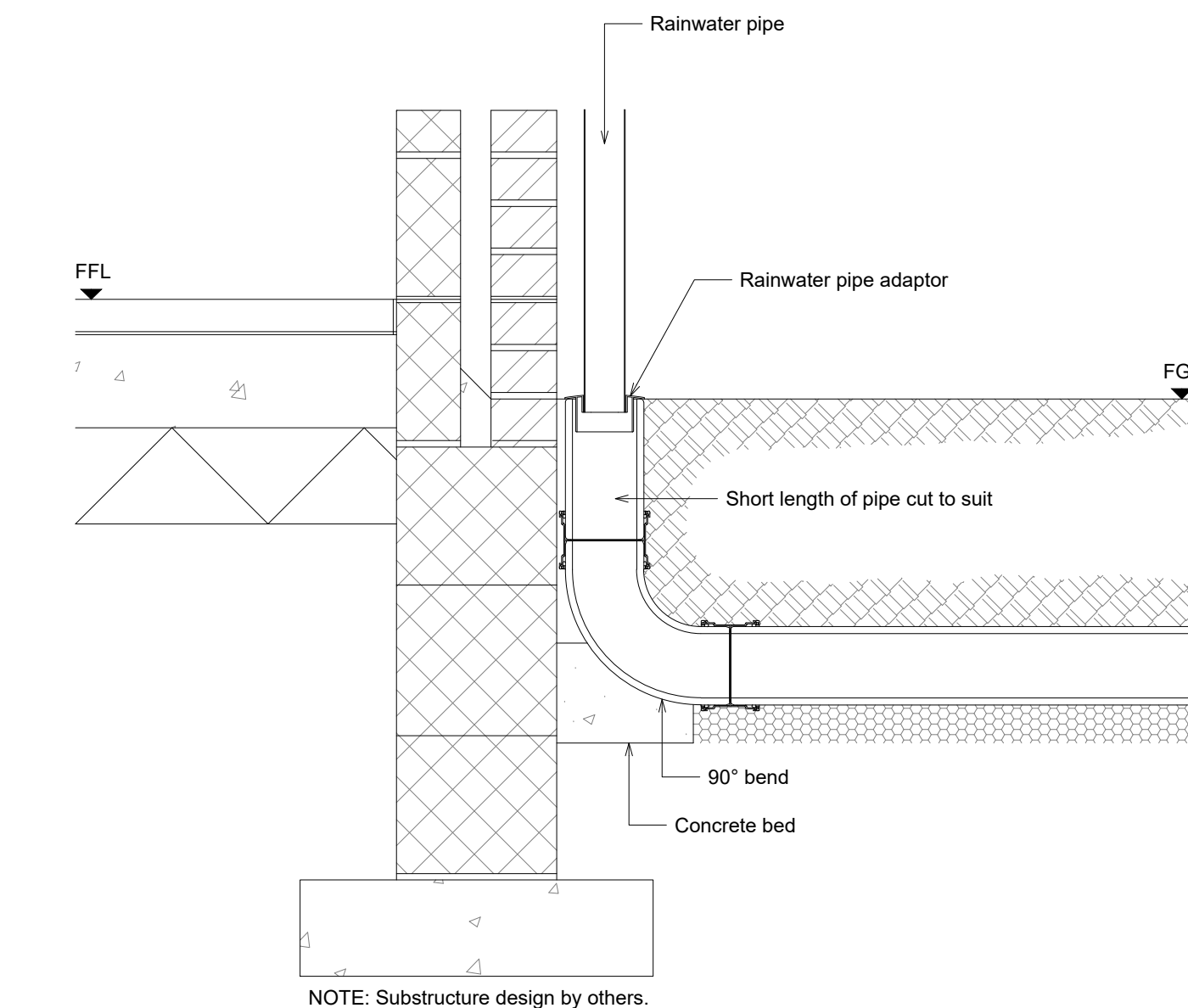
Pipe jointing surfaces and components shall be kept clean and free from extraneous matter until the joints have been made or assembled, care should be taken to ensure that there is no ingress of grout or other material into the joint after the joint has been made.

Pipes should be cut in accordance with the manufacturers recommendations to provide a clean square profile without splitting or fracturing the pipe wall and to ensure minimal damage to any protective coatings, where necessary, the cut ends of pipes shall be formed to the tapers and chamfers suitable for the type of joint to be used.

Pipe Ø (mm)	Suitable Materials: (Aggregate to BS 882)
100	10mm nominal single sized aggregate
150	10 to 14mm nominal single sized aggregate
225 to 525	10 to 14mm or 20mm nominal single sized aggregate
Over 525	10, 14, 20 or 40mm nominal single sized crushed rock

### Typical External Rainwater Pipe Connection Detail

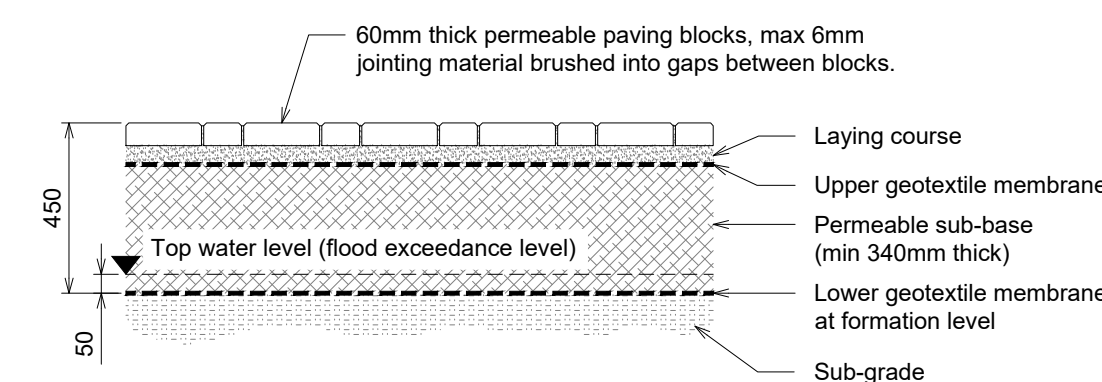
scale 1:10



NOTE: Substructure design by others.

### Permeable Paved Areas

scale 1:20



#### Permeable Paved Highway Construction Specification

- 60mm Concrete Blocks specifically designed for permeable usage. Blocks to have max 6mm aggregate jointing material brushed into gaps between blocks. (architect to confirm block type and colour).
- 50mm Laying course comprising clean graded aggregate with particles within the range 3mm to 6mm.
- Upper geotextile membrane such as Terram 1000 or similar approved product.
- Minimum 340mm thick permeable sub-base material comprising clean graded aggregate with particles within the range 5mm to 20mm.
- Lower geotextile membrane such as Terram 1000 or similar approved product.

#### 450mm total formation depth.

#### Permeable Paving Drive & Paths Maintenance Statement

The System relies upon the permeability of the finished surface to allow for surface water to percolate through the open joints of the blocks and through the 'no-fines' bedding layer and sub-base to the sub-soil below. The open graded sub-base also allows for the storage of extreme storm events that has been designed to cater for a 1in100 year return period with a 30% allowance for climate change.

The most common form of failure of permeable paving systems is the 'clogging' of the joints and accumulation of silt within the sub-grade. A regular planned inspection and maintenance regime is essential to ensure the effectiveness of the system.

It is recommended that a regular visual inspection of the paving is carried out, but certainly at no greater intervals than once a year. Observe the performance of the paving during heavy periods of rain to ensure no ponding or standing water.

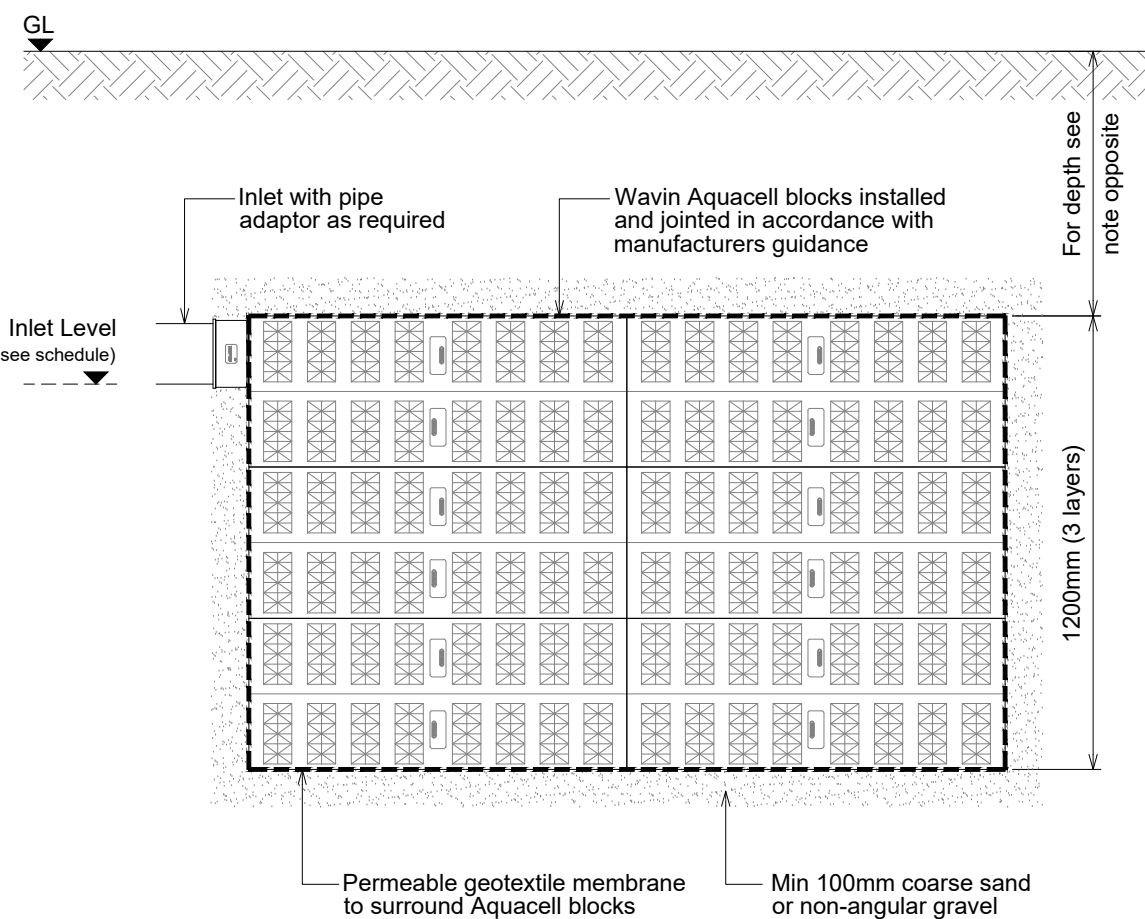
- Annual Inspection to include:
- Vacuum sweep or pressure-wash the surface of the paving to remove debris from the open-joints and remove any weed growth.
  - Apply a suitable weed-killer if required.

25-30 Year Anniversary:  
Lift and set-a-side the block paving and replace the sub base as per the construction detail shown on the drawing.

Maintenance Records:  
Record the date of each inspection along with a brief description of any works carried out.

### Section: Cellular Soakaway (Aquacell)

scale 1:20



See manufacturers literature for details of block arrangement / fixing and selection.

As strength varies between block models, the contractor is to consult the manufacturer to ascertain the correct block selection for each installation.

#### NOTE: Minimum cover depths. (Guidance Only)

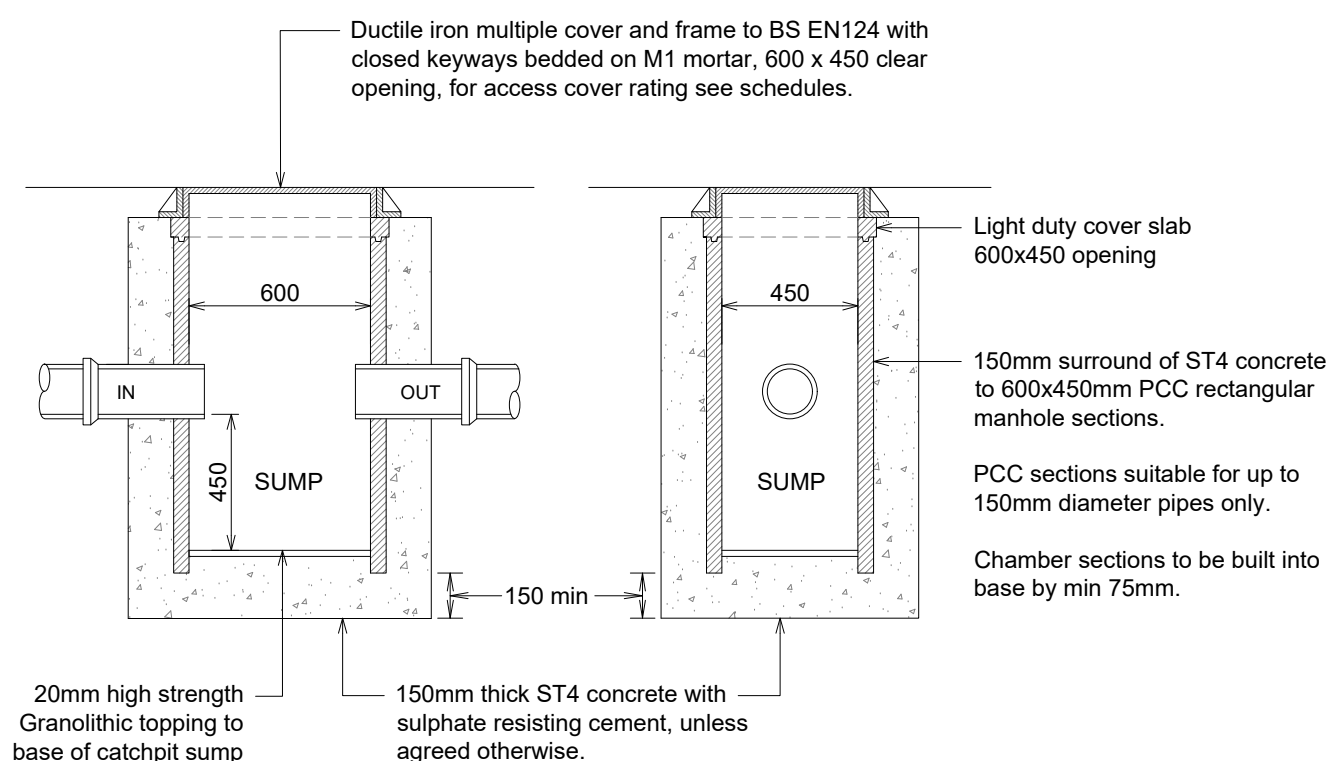
- Heavy vehicle loading (i.e. large vehicles)  
Cover to be not less than 1200mm.
- Light vehicle loading (i.e. parked cars)  
Cover to be not less than 800mm.
- Non trafficked areas:  
Cover to be not less than 600mm

#### Aquacell Installation Notes: (Contractor to consult manufacturers literature for full details)

- Excavate the trench to the required depth ensuring that the plan area is slightly greater than that of the AquaCell units.
- Lay 100mm bed of coarse sand or non angular granular material, level and compact.
- Lay the geotextile membrane over the base and up the sides of the trench.
- 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 AquaCell Clips and for multi layers use AquaCell Clips and AquaCell Shear Connectors (vertical rods).
- Fix the pipe adaptors to the AquaCell units as required to suit the incoming pipework.
- In order to prevent silt from entering the tank, clogging the inlet pipework and reducing the storage capacity, it is recommended that a silt trap / catchpit is installed upstream of the tank inlet.
- Wrap and overlap the geotextile covering the entire AquaCell structure, minimum lap to be in the order of 300mm.
- Lay 100mm of coarse sand or non angular granular material between the trench walls and the AquaCell structure and compact being careful not to damage either the blocks or the geotextile membrane.
- Lay 100mm of coarse sand or non angular granular material over the geotextile and compact.
- Backfill tank with suitable clean material, free of organic matter and debris.

### PCC Catchpit (600x450mm)

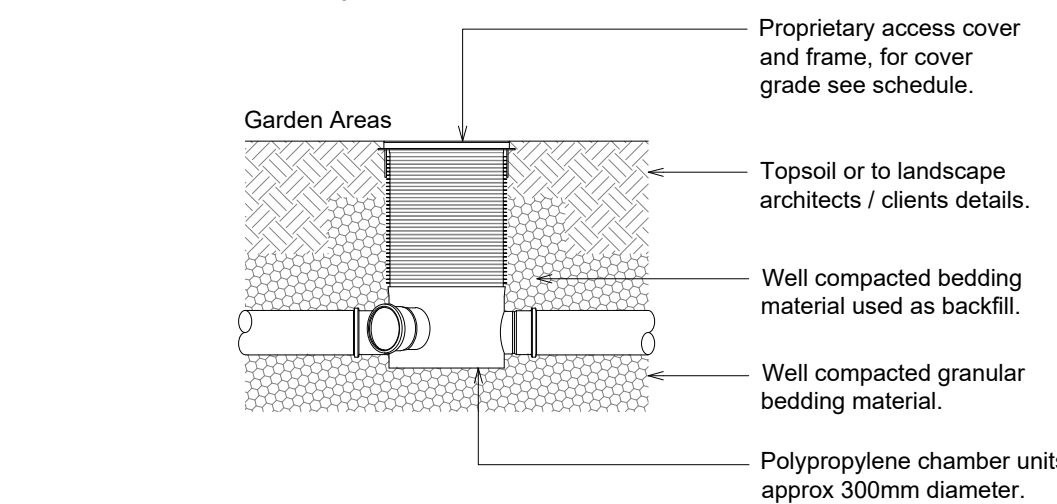
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### Shallow Inspection Chamber (SIC)

Use on private drainage works only

scale 1:20



NOTE:  
Where chambers are positioned on 90° corners, always use the main channel by fitting 45° bends on both inlet and outlet pipes.

Maximum diameter of main channel 150/160mm  
Maximum pipe diameter of inlets 100/110mm

Unused inlets are to be sealed and made watertight.

Backfill to be well compacted around shaft of chamber.

No incoming branch is to be less than 90° from the outgoing direction of flow.

#### DRAINAGE NOTES

- The location of any existing drains and sewers are to be accurately located and reported prior to any work commencing on site.
- All materials, workmanship and construction to be in accordance with the requirements of 'Sewers for Adoption - 7th Edition' and published addendum and corrigendum.
- Channel drains shown are only to collect surface water run-off from hard paved areas and door thresholds and are not intended to collect groundwater or run-off from gardens and landscaped areas.
- All abandoned pipework to be completely removed or grout filled unless stated otherwise.

#### NOTES

- The Contractor should check all dimensions on site.
- It is the Contractors responsibility to ensure compliance with building regulations and current codes of practice.
- Drawings cannot take into account any drains or underground works not locatable by visual survey of the site.
- Commencement of any building works prior to full building regulation approval is entirely at the clients risk.

Rev	Description	Date
A	First issue to client	03/01/2023
PROJECT: Proposed residential development to the rear of 423 Dover Road, Walmer, Kent, CT14 7PE.		
CLIENT: TBC c/o Blackrock Architecture Limited		
DRAWING: Proposed Drainage Details	SCALE: As Noted	DATE: 03/01/2023
STATUS: PRELIMINARY	PROJECT NO: T-2022-115-03	SIZE: A1
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