DESIGN OF SOAKAWAYS

From BRE Digest 365: Rainfall Ratio
r=0.40 for this location.
Soakage rate=2.5x10^{-5}m/sec based on tests made by
Abstech International Ltd on 25.6.2003.

NOTES
1. Soakage through the base has been added to that through the walls as clogging is considered unlikely due to the geotextile protection.
2. Edge of soakaway should not be nearer than about 5m from any building.
3. Soakage rates shall be verified on site by geotechnical consultant & notified to the Engineer.
4. All soakaways shall be located in clean uncontaminated ground.
5. The construction method is by using prefabricated cell units with 95% voids, (Wavin Aquacell or similar approved) The unit size is 1.0m long x 0.5m wide x 0.4m high. All soakaways have been designed to be 2 units high (ie 0.8m) with plan dimensions as marked on plan
6. The Aquacell drainage units shall be installed strictly in accordance with the manufacturers instructions.
7. Permeable geotextile material shall be placed around the base, sides,ends & top of the Aquacell units. O90 pore size of 0.2mm or less to prevent ingress of fines.

DRAINAGE NOTES

All works to comply with Building Regulations.2000
Approved Document H,2002 Edition
Private drain connections to adoptable sewers to be clayware pipes.
Remaining private drains to be 110mm dia. U.P.V.C. or 100mm clayware unless stated.
Private sewers serving more than 10 dwellings to be 150mm dia

All pipe chambers and fittings to be installed, bedded and backfilled in accordance with the manufacturers instructions.

Private drains and sewers which pass adjacent to building foundations to be constructed in accordance with Part H.1. of the Building Regulations.

All private drains to incorporate preformed inspection and shallow access chambers where possible.

Traditional chambers (private) to be constructed using precast concrete sections with 150mm concrete surround.

Depth to I.L.	Min. chamber size (internal).	
0.6m or less	225mm x 100mm	or 190mm dia
0.9m or less	450mm x 450mm	(normally a preformed chamber,450mm dia)
1.2m or less	450 x 450mm	(normally a preformed chamber,450mm dia)
1.5m or less	1200mm x 675mm or 1200mm dia.	(pipe up to 225mm dia only)
Over1.5m	1200mm x 1000mm or 1200mm dia.	(pipe up to 225mm dia only)

Rainwater downpipes to be connected directly to surface water drain via 68/110mm adaptors, removable to allow for rodding.

Position of yard gullies shown in garage drives are nominal only and may be adjusted on site.

All drains in the vicinity of proposed trees to be constructed in accordance with the requirements of current N.H.B.C. standards.

All back inlet gullies to be roddable.

ADOPTABLE DRAINAGE LEGEND

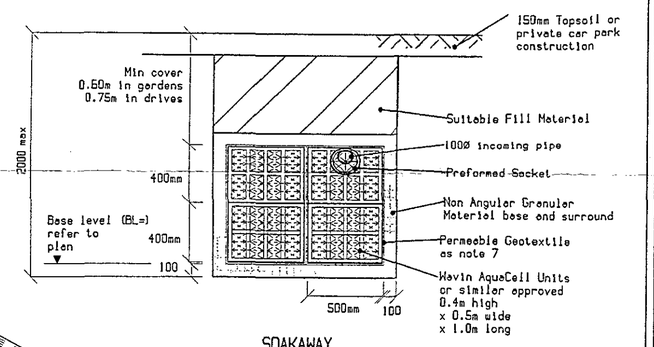
Existing foul water sewer .....
Existing surface water sewer .....
Proposed foul water sewer ..... (to be adopted)
Proposed surface water sewer ..... (to be adopted)
Proposed backdrop ..... (on adopted sewer)
Proposed trapped road gully ..... (150mm outlet)

PRIVATE DRAINAGE LEGEND

Proposed foul water drain .....
Proposed surface water drain .....
Proposed inspection chamber (traditional) ..... or
Proposed preformed inspection chamber (depth 0.9m/1.2m or less) ..... or
Proposed preformed inspection chamber (depth 600mm or less) ..... or
Proposed shallow access chamber (normally preformed 225mm or 250mm dia) .....
Proposed rodding eye ..... RE
Proposed chamber invert level 7.50
Proposed trapped gully in drives .....
Suspended slab, where appropriate ..... SS
Proposed slab level ..... SL 9.750
Proposed soakaway .....
Target levels to car parks ..... x 7.820

rwp... O svp... ● svp via... ◉ w/c... O sink... O big... ■ vent pipe... O vent required at head of system

NOTE
Where durgo valves are used they should not adversely affect the amount of ventilation necessary for the below ground system which is normally provided by the open stacks of the sanitary pipework.



SOAKAWAY
2 Units High - Width & Length Varies
see plan

Foul Pumping Station

ROAD 4

CLIFTON SL=3.85 · BRANDON SL=3.70 · EASTCOTT SL=3.70 · CLIFTON SL=3.70 · BRANDON SL=3.70 · DERWENT SL=3.70 · ROSEBANK SL=3.70 · EDALE SL=3.70 · CAIRN SL=3.70 · ELY SL=3.70 · EDALE SL=3.70 · DERWENT SL=3.85 · BRANDON SL=3.85 · ELY SL=3.70 · EASTCOTT SL=3.85 · EASTCOTT SL=3.85 · SL=3.85 · BRANDON SL=3.85 · EDALE SL=3.85

S5 S6 S7 S8 S9 F5 F6 F7 F8 F9 F10 F11

5.0m 1.8m

C.B. FENCE · C/L FENCE

Rev. No.	REVISION	Date	Drawn By	Checked By
A	Soakaway information added	25.9.03	AJMB/BC	25.9.03

Written dimensions to be taken. Do not scale off the drawing.
Any discrepancies, written or scaled, should be brought to the attention of the engineer immediately.
This drawing to be read in conjunction with the relevant Bills of Quantities and Local Authority Specification.
CDM NOTE: The design has been undertaken as far as possible to avoid risks to health and safety or to reduce and control the effects of any unavoidable risks.
All relevant information identifying the unavoidable risks has been passed to the planning supervisor for inclusion in the Health & Safety plan.
The Health & Safety plan will be issued by the planning supervisor with these drawings.

LD, BURROWS PARTNERSHIP
neering Consultants
Hitchin Street, Tel 01767 317244
e, Beds SG18 8AX, U.K. Fax 315434

d Development at:-
Road, Sutton Bridge.

Drainage - Sheet 1 of 3
Superseded

mas Eastern Ltd
ose
Avenue
ne PE11 2BS

Drawing Number
E1332/6/A

Drawn By AJMB/BC Date 2.9.03
Scale 1:200
Checked By AJMB Date 25.9.03

RECEIVED 2 OCT 2003
1322/03