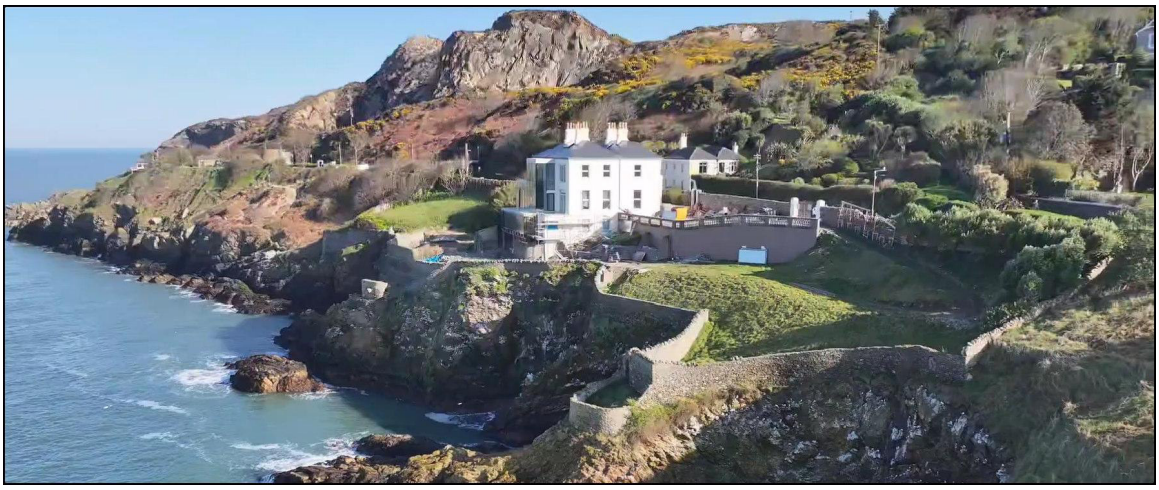

Project:

Application No. 1: Substitute Consent
Application No. 2 : Further Development

Tara Hall, Balscadden Road, Howth, North County Dublin

Report: Engineers Report

Date: January, 2026

Client Mr. John Roe

Job Reference	25-002
Document Reference	25-002r.001

Revision	Date	Author
1st Draft	08/12/25	Darragh Aiken
2nd Draft	27/01/26	Darragh Aiken
3rd Draft	27/04/26	Darragh Aiken

Revision	Revision notes
2nd Draft	Sepcon Details, s3.2 and App A added

Author Details	Details
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Company:	Vertical Star Ltd.
Email:	darraghaiken@gmail.com
Phone:	086 2682853
Qualifications:	Bachelor of (Civil) Engineering University College Dublin, 1991

Contents: **Page**

Appendices:

1 Introduction

1.1 Background of report

This Engineering report has been prepared on behalf of Mr. John Roe to accompany n application for Substitute Consent (application no. 1) and an application for further development (application no. 2) in respect a residential property called Tara Hall, located on Balscadden Road, Howth, County Dublin, eircode D13W304 in the administrative area of Fingal County Council. The application for substitute consent addresses the retention of works done to date whereas the application for further development seeks permission for the completion of other works.

This report addresses the engineering aspects including water supply, foul water and surface water disposal.

1.2 Site Location

The site is located on the sea side at Balscadden Road, bounded by a wall to the edge of the cliffs and the road it is approximately 165m long, varying from 25m to 45m in width and steeply sloping across the width of the site by up to 17m. Refer below to Figure 1 for site location to the east of Howth Harbour along the Balscadden Road. A topographic survey was carried out by Geo3D Solutions in October 2022 prior to any construction and is included in the engineering set of drawings, numbered 25-002-P001 “Site Survey”.

Figure 1: Site Location

1.3 The Development

The development for substitute consent consists of the retention of demolition at lower ground floor, ground floor and first floor levels and the substantially constructed part two/part three storey extension at the north elevation of the existing dwelling and a new on-site sepcon waste water treatment plant with sand polishing filter, and percolation area.

The proposal for further development will consist of the completion of the construction of a part two/part three storey extension with proposed modifications at the north elevation of the existing dwelling including setting back the east elevation at lower ground and ground floors, the removal of newly installed window opes and reinstatement of previous window opes (1 no. At ground floor level and 2 no. At first floor level) at the north elevation, and associated development works including surface water drainage upgrades with SuDS devices.

2 Water Supply

2.1 Existing Water Supply

The site is served by an existing watermain on the Balscadden Road. This main is not on Uisce Eireann records but a service from it is taken into the property to the west side of the main house. The stop cock location is inside the property and not on the public road.

Watermain records obtained from Uisce Eireann indicate a 125mm HDP watermain some 420m to the west of the site at the junction of Balscadden Road and Kilrock Road. As noted before, a main was laid in Balscadden Road up to the property and possibly beyond, but it is not on the Uisce Eireann records.

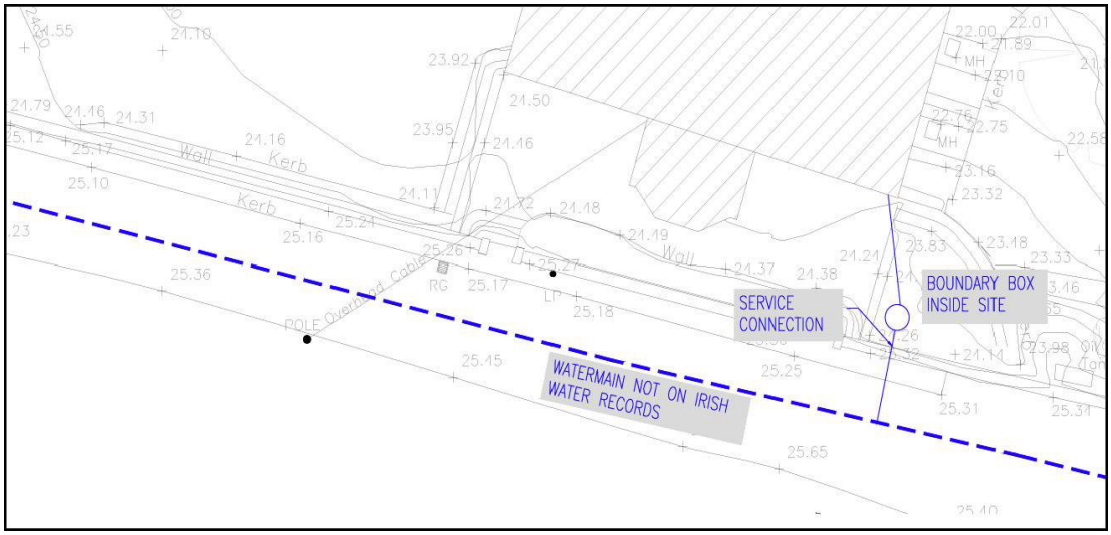


Figure 1A: Watermain Connection Point

No changes to the water supply arrangements were required as part of the works and accordingly, no contact has been made with Uisce Eireann.

3 Foul Drainage

3.1 Existing Foul Drainage

Uisce Eireann records were obtained for drainage networks near the site. The nearest foul sewer, a 225mm diameter pipe, is some 430m to the west along Balscadden Road at the junction with Kilrock Road. Please refer to appendix B for the layout provided.

Prior to the works on site, the property was served by a septic tank that was located at lower ground floor level under the balcony to the rear garden. The septic tank discharged through a series of manholes to the cliff face outfall indicated in drawing 25-002-P002.

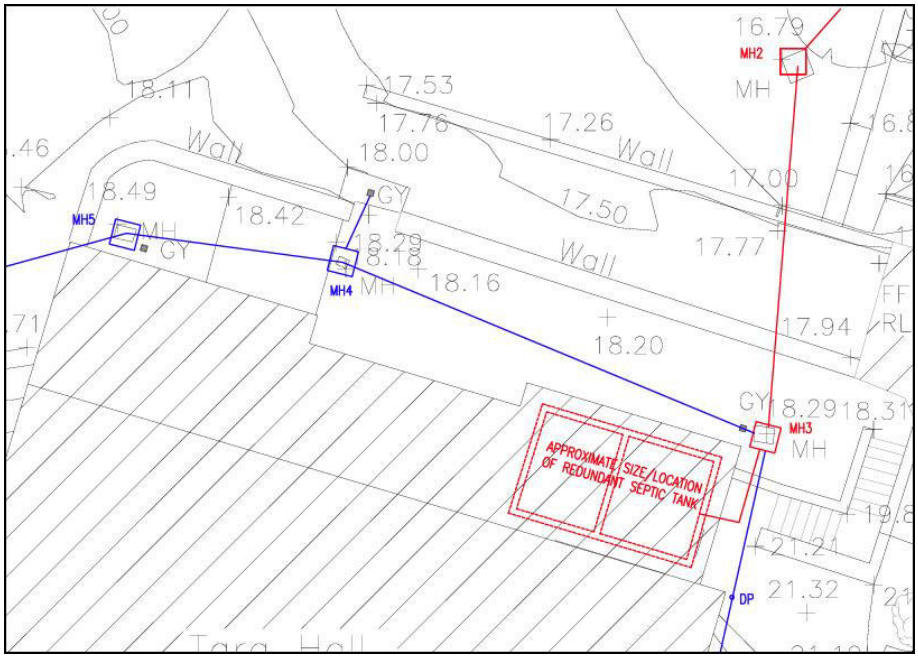


Figure 2: Existing Septic Tank Location

No evidence of percolation pipework that would normally be associated with a septic tank have been found, possibly due to the age of the tank and site conditions.

The outfall pipe to the sea is 225 mm vitrified clay at quite a steep gradient and is adhered to the rock face with a concrete haunch and extended to a point above the high water mark. The outfall pipe was not inspected at its lower reaches due to its proximity to the cliffs. See Figure 3 below. Most of its concrete haunching is in place but at its lower levels some has come away but is still functioning, only now discharging surface water and not foul sewerage.

Figure 3: Sea Outfall Pipe

The existing septic tank has been made redundant and sealed off. All foul flows from the building have been redirected to the “Sepcon Waster Water Treatment Plant” located to the west side of the house at the foot of the retaining wall to the car park. Please refer to drawing 25-002-P002 for the layout. The Sepcon BAF PE8 (TT) Concrete Sewage Treatment is proposed. Design information for the WWTP has been provided in appendix A.

Treatment is provided by pumping to the sand polishing filter and percolation pipework which have been constructed in the garden to the east side of the house, the levels in the area being altered to accommodate a long percolation area within the sloping garden. The footprint of the percolation area is 90 m2 and the sand polishing filter within this footprint of 20 m2.

Pipework to the sand filter comprised of 40mm Blue HDPE feed pipes. Percolation area infiltration bed comprised of 10mm to 40mm graded percolation stone with 32mm low pressure percolation pipework. Inspection chambers with concrete lids to be installed for access to flushing caps in the low pressure bed and a woven geotextile membrane to be installed over the percolation area.

The Sepcon WWTP and percolation areas are in place.

No surface water is permitted to enter the foul water system and all building drainage works, constructed in 100 / 150 mm uPVC pipework are to be constructed to Technical Guidance Document H – Drainage, of the Building Regulations.

4.0 Surface Water Drainage

4.1 Pre-Existing Surface Water Drainage

The existing, pre-development, surface water drainage routes are indicated in Figure 4 below.

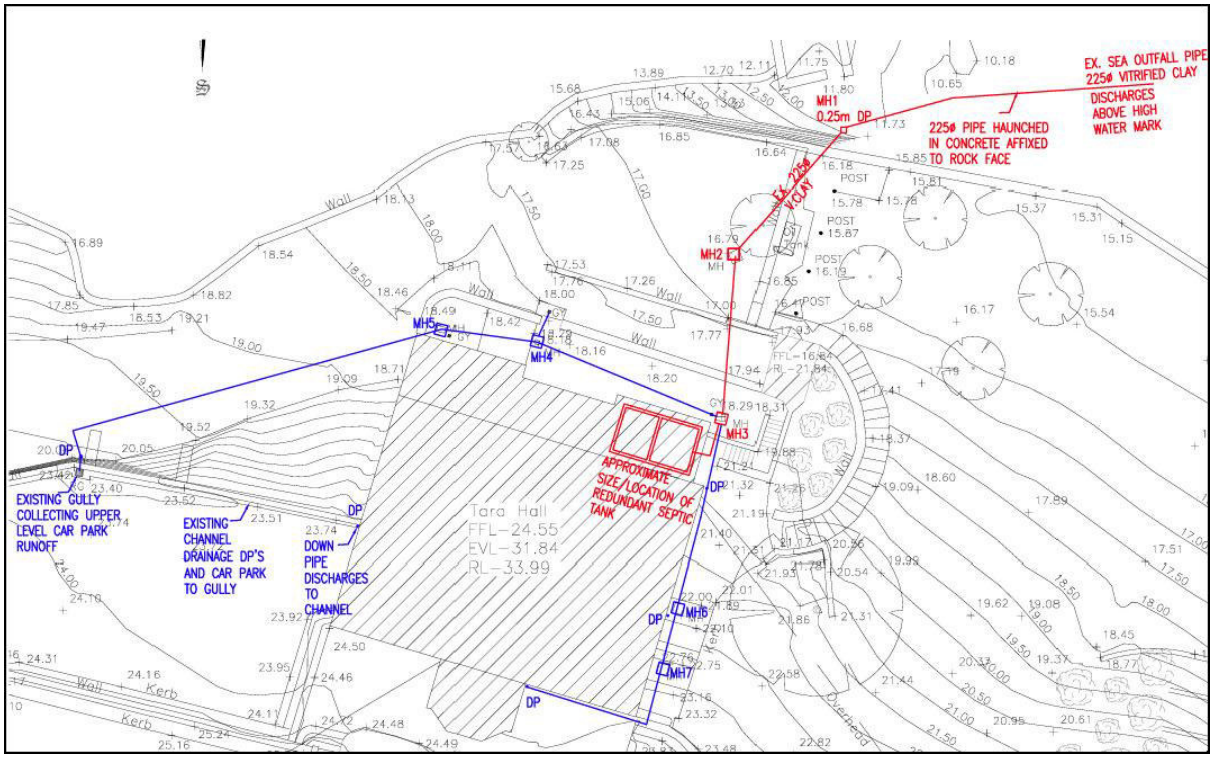


Figure 4: Existing Surface Water Drainage

The minor surface water house drains and drainage from the car park discharge from either side of the house to MH3 and then join with the outfall from the septic tank to the sea outfall via a 225 mm diameter vitrified clay pipe.

All of the drains have now been pulled up. From MH2 to the outfall, the existing pipework remains as existing.

4.2 Proposed Surface Water Drainage

The proposed surface water drains in application no. 2 will approximately follow the same routes as the older drains. SuDS (**Su**stainable **D**rainage **S**ystems) measures, in accordance with Fingal County Councils best practice (Blue Green Infrastructure, 2020 edition) and Ciria 753 SuDS Manual, 2015 are employed throughout the site to provide treatment for 90% of hard surfaces on the site.

The remaining hard surfaces at the lower levels relate to steps in the garden that runoff to the grassed areas as before.

As part of application no. 2 for further development, it is proposed to provide SuDS measures of two down pipe planters to intercept runoff from the car park and roof areas to the west of the house and another to intercept the paved area to the front of the house and the roof runoff and steps to the east side of the house. Please refer to drawing 25-002-P002 and P003 for the proposed drainage layout and SuDS details respectively and figures 5 and 6 below.

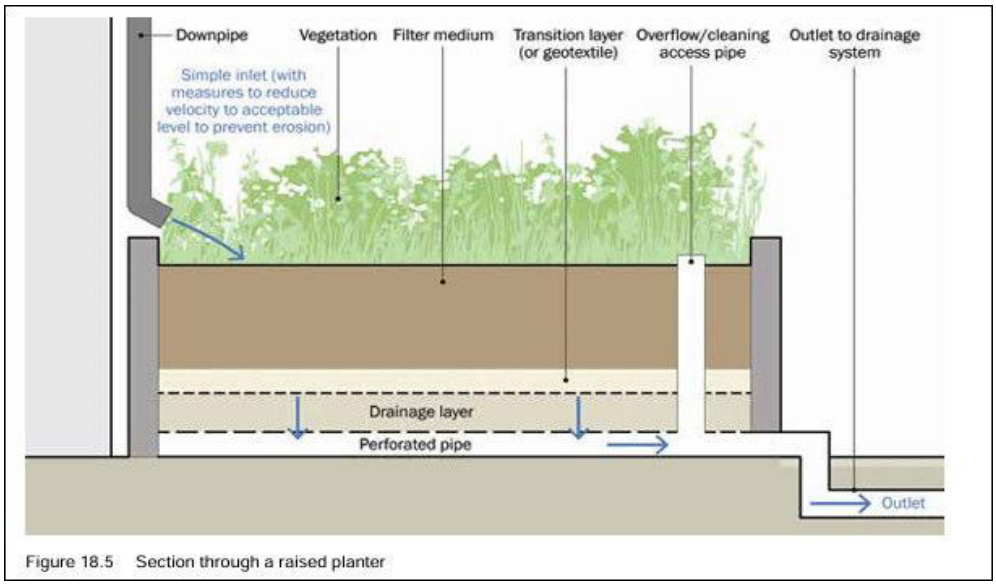


Figure 5: Proposed Downpipe planters (Ciria 753, Figure 18.5)

Downpipe planters are to be constructed to a minimum size of 2m x 1m in both locations indicated in drawing 25-002-P002. These planters provide for the removal of solids and impurities from surface runoff and some degree of hydrocarbon removal and attenuation.

Figure 6: Rainwater Butts (Ciria 753, Figure 18.5)

Rainwater butts are proposed at all rainwater down pipe locations which will provide some level of attenuation and settlement of solids from surface water runoff.

The surface water will discharge through the existing pipework from SMH2 to the sea outfall and is now dedicated to the treated surface water runoff from the site.

No surface water is permitted to enter the foul water system and all building drainage works, constructed in 100 / 150 mm uPVC pipework are to be constructed to Technical Guidance Document H – Drainage, of the Building Regulations.

Appendix A: Sepcon Waste Water Treatment Plant

Sepcon
SEWAGE TREATMENT SYSTEMS

Advanced Sewage Treatment Solutions

Owners Documentation

Sand Filters / Pumped Pressurised Beds / Low Pressure Pipework

Prepared for:

Roe Savin Construction Ltd
Tara Hall
Balscadden Rd, Howth
Co. Dublin

Client Ref: 8219

address
Moyglare Rd,
Kilcock,
Co Kildare.

phone
01 6287300

email
info@sepcon.ie

web
sepcon.ie

z

Sepcon
SEWAGE TREATMENT SYSTEMS

Property Address:
Roe Savin Construction Ltd
Tara Hall
Balscadden Rd, Howth
Co. Dublin

Date: 22/07/2024

22/07/2024

Owners Documentation for Sepcon BAF 8PE Tein Tank Waste Water Treatment System and 20m2 sand polishing filter.

Please take time to read through this documentation specifically prepared for your site. Please keep this paperwork within your 'homes portfolio' for future reference.

1. Important information regarding your treatment system and percolation area.
2. Installation report.
3. Maintenance contract.
4. Flushing procedure for polishing filter.
5. Separate Doc: Owner's manual for Sepcon BAF 8PE Tein Tank Waste Water Treatment System
6. Separate Doc: EN12566-3 Certificate for Sepcon BAF 8PE Tein Tank Waste Water Treatment System
7. Separate Doc: Tank commissioning certificate.

If you have any concerns or questions, please feel free to contact us.

Kind Regards,

From all at Sepcon

**** Important Information ****

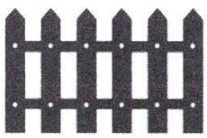
➢ After We Remove Machinery Off Site

Be aware the works area may settle and the clay around the tank will subside for at least 12 weeks after we complete the works. This is normal as soil will naturally settle in trenches and around the new and old tank. Always take extreme caution when walking in areas that have been recently excavated.

Never drive over the tank or percolation area. In general, it is acceptable to add soil to the percolation area, providing the person carrying out the works is aware that the percolation pipes are generally relatively shallow. Extra care is required to avoid damage the percolation pipework and manholes.

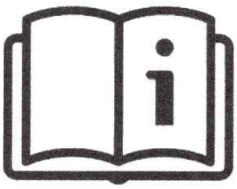
Your system should be hard wired into your mains in the garage/house. Ensure the tank is wired into the mains in the house/garage by a suitability qualified electrician. We recommend a C10 MCB is installed in the house/garage end of the cable. Your electrician will have the final say in terms of internal wiring. **NOTE:** Although we may provide a standard plug on the power cable to power your system temporarily after installation takes place – this should not be a permanent arrangement.

Always have the tank emptied / desludged by a suitability qualified contractor when the sludge in the primary chamber reaches 500mm from the base **or** as per the annual service report. When we are servicing the system, we will inspect the tank for sludge and make a note on the service report as to when you should empty the tank.



We recommend that you fence the tank off from children and pets. Never enter the tank as it is a dangerous confined space which is only suitable to enter if you are trained and have the correct safety equipment. Always wear protective gloves if inspecting the tank or percolation as part of your periodical maintenance.

Always have the sewage system serviced annually and keep the service report in your records in the event of a house sale or local authority inspection. Although we may provide a courtesy reminder, it is the clients responsibility to contact us to book in annual servicing as we can't guarantee that you will receive an annual reminder.



Always operate the sewage plant (the tank) in accordance with the owner's manual attached separately to this document.

Additional copies of all manuals are available by request.

➢ About the Treatment Unit (tank) & Percolation Area

Sewage treatments units use colonies of live natural micro-organisms to break down pollutants in domestic sewage. Many chemicals found in the household can inhibit or kill these micro-organisms, particularly if used in excessive amounts. If the micro-organisms are killed, they will usually recover over time (6 to 15 weeks). But in the meanwhile, one of the more obvious symptoms is an unpleasant smell.

All common household cleaning fluids are acceptable in moderation, providing that they are used in accordance with the maker's instructions and used in low doses and concentrations. Remember not to use any cleaning products excessively as this will kill the bacteria in the tank and cause it to smell.

Bear in mind that it is not only the toilet that is connected to the treatment unit, anything that goes down the sink, bath, showers, washing machines, etc, also ends up there.

The following are some of the most common chemicals found in household situations. It is not an exhaustive list, but always remember ***"If in doubt – Leave it out."***

- **Washing machines and dishwasher detergents, washing up liquids**

Acceptable in normal concentrations and usage. Only carry out washes for persons living in the household. **NB:** Washing clothes for persons not living in the household can cause an imbalance of detergents to organic material into the treatment plant, this can ultimately cause the tank to smell more.

- **Floor cleaners, disinfectants, and bleach**

These are generally safe to use in low doses, in accordance with the makers recommendations and in the minimum necessary concentration. NEVER pour neat disinfectant or bleach down the sink, outside gullies or into the toilet. If using cleaners daily, we recommend that you dispose of them in your domestic waste bin using a suitable container.

- **Baby disinfectants and bottle sterilizing fluids eg. Milton**

When disposing of the used fluid, ensure that it is well diluted with water. If using this daily, we recommend that you dispose of this in your domestic waste bin using a suitable container.

- **Sink Waste Disposal Units**

Do not install any sink waste disposal units as this will dramatically increase the level of solid waste. Using a sink food disposal unit can increase the emptying requirements of the sewage plant by up to 250%.

➢ Do's & Don'ts - Sewage Treatment Unit & Percolation Area

- Do, Keep the sewage treatment unit always fenced off.
- Don't, enter the sewage treatment unit under any circumstances.
- Call Sepcon immediately in the event of an alarm sounding on the tank on 01 6287 300.
- Don't allow pure bleach into the treatment unit.
- Don't carry out any repair works on the sewage unit unless you are competent to do so. All warranties and guaranties are void if the unit is modified or interfered with in any way without consulting with Sepcon.
- Don't disconnect the electricity for more than 24 hours.
- Don't put a timer switch on the air compressor. The air compressor should run nonstop to keep the bacteria alive in the unit and provide circulation of the effluent. If the air compressor is turned off the bacteria levels will reduce, and the media, diffuser and ultimately the percolation may block upon restart. This will result in expensive repairs. The running costs on a domestic unit are approx. €1 per week.

The following common items should never be flushed down the toilet or enter the treatment system:

- Milk
- Kitchen roll
- Baby wipes
- Sanitary towels
- Condoms
- Cotton buds
- Pure Bleach or other heavy cleaners
- Flushable wet wipes. (Regardless of non-Irish approval on packaging)

➢ Minimum Maintenance Periods

➢ Do not exceed these periods!

1. The Sepcon BAF 8PE Tein Tank Waste Water Treatment System must be serviced by a competent person every **12 months** without any breaks in order to maintain your extended warranty.

2. The Sepcon BAF 8PE Tein Tank Waste Water Treatment System must be emptied/desludged as per the annual service report recommendation **or** as per the sewage systems owner's manual supplied if otherwise specified.

3. The percolation must be flushed every **6 months** as per the guide enclosed.

PLEASE NOTE:

Failure to maintain the sewage system within the minimum periods as above could result in costly and totally avoidable system failure.

Your extended warranty on certain tank components is only valid if the system is serviced every 12 months by Sepcon, please book in your service at least 2 weeks prior to your intended date.

It is also strongly recommended that you carry out basic maintenance on your treatment unit on monthly basis. The following is a quick guide to basic maintenance:

- Keep the lids around the tank clean and free from obstructions or overgrowth.
- Ensure the unit is humming gently. (It can normally be heard from about 5 meters away)
- The percolation area should be checked and flushed in accordance with the instructions in this manual.

Remember: Sepcon are available to carry out your annual maintenance.
Please contact our office on 01 6287300 to book in a service.

- Although we may provide a reminder – the onus is on the customer to book in service visits.
- Please contact us if you require further copies of any part of this documentation

Property Address:
Roe Savin Construction Ltd
Tara Hall
Balscadden Rd, Howth
Co. Dublin

Date: 22/07/2024

Installation Report

To whom it may concern,

Please find the polishing filter installation note in relation to the above referenced address as follows:

- A Sepcon BAF 8PE Tein Tank Waste Water Treatment System has been installed. This system is EN 12566-3 certified.
- Foul and grey water from the house is entering the treatment system (Rain water appears to be diverted to separate soak pits. (A CCTV assessment of the pipework was not completed)
- A 20m2 sand polishing filter. has been installed. Reference was made to the EPA Code of Practice and the site report data completed for the client.
- Installations that are completed on an existing property are considered as an upgrade or improvement of an existing sewage system and as such, compliance with the relevant EPA Code of Practice is not guaranteed due to site limitations and specific customer preferences. Although the EPA Code of Practice may be referenced to carry out an installation, Sepcon does not imply absolute compliance with such.

If you require any further clarification, please feel free to contact us.

For Sepcon

Maintenance Contract for a Sewage Treatment System
Single House Service Agreement

Ryan Civil Contracting Ltd T/A Sepcon ("the company") enter this maintenance agreement with the customer ("the customer") named below:

Customer Details		Site Details	
Name	Roe Savin Construction Ltd	Name	Roe Savin Construction Ltd
Address	Tara Hall Balscadden Rd, Howth Co. Dublin	Address	Tara Hall Balscadden Rd, Howth Co. Dublin
Mobile		Mobile	
Landline		Landline	

Details of Sewage Treatment Unit			
Make & Model	Sepcon BAF 8PE Tein Tank Waste Water Treatment System	Percolation	20m2 sand polishing filter.
		Pump	
Installed	22/07/2024	Serviced	
Comments			

Duration of this Maintenance Agreement			
Commencement Date:	22/07/2024	Expiry Date:	1 Year from commencement date

NOTE: YOU MUST BOOK IN YOUR ANNUAL SERVICE BY CALLING SEPCON ON 01 6287300

This single house Wastewater treatment System maintenance agreement includes the following:

1. The system will be inspected by agreed arrangement with the customer.
2. On the day of the inspection a written report will be provided to the customer indicating the status of the unit, pump chamber etc (if applicable).
3. Full inspection labour is covered (including any immediate minor system adjustments required) This service agreement doesn't cover the cost of any labour or materials that may arise as a result of this inspection.
4. Any parts replaced will be billed on the day.
5. Inspection of this system will be scheduled by the client within the last 3 months of each 12-month period.
6. Please note that this maintenance contract does not cover the desluding of the unit. Under the current EPA guidelines, it is recommended to desludge this unit annually. Contact us to arrange this and we will provide a price for same.

Service Agreement Options	Price	Select
1 Year (Included with a new WWTS)	€Included	
3 Year Contract (Includes 3 Services)	€	
5 Year Contract (Includes 5 Services)	€	
All prices include VAT		

Sepcon agrees to provide the services listed on this maintenance agreement subject to the terms and conditions below: *Signed Sepcon:* *Name:* Amanda Daly *Date:* 22/07/2024	*Please supply the services listed on this maintenance agreement subject to the terms and conditions below:* *Signed Customer:* *Name:* *Date:*

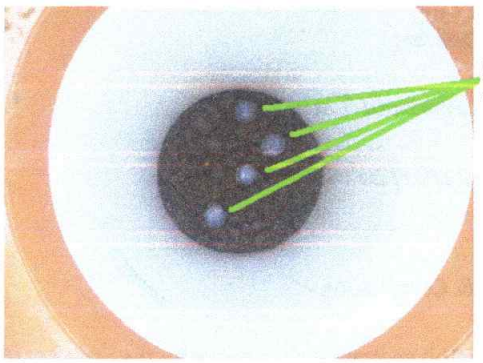
Terms & Conditions

1. This contract shall continue for the period of the agreement only and is renewable upon expiration of that agreement.
2. This agreement will not extend to:
   - Modifications or additions to the equipment
   - Items in which the company's opinion can no longer be subject to economic maintenance.
   - Defects resulting from misuse or neglect of or accident to the equipment or failure to follow the instructions / advice of the company.
   - Inspection or coverage of the percolation area.
3. This service agreement must be returned signed to Sepcon, Moyglare Rd, Kilcock, Co Kildare. The customer must keep the second copy.
4. If a customer requests an unscheduled maintenance visit prior to the maintenance inspection being carried out on the system, then the service inspection will also be carried out during this site visit. If the customer does not wish for the service inspection to be carried out during the visit or if subsequent unscheduled maintenance visits are required there will be a charge to the customer.
5. Additional services and the cost of replacement parts will be subject to extra charges in accordance with the company's terms then in force.
6. To facilitate the provision of this maintenance agreement the customer shall:
   a. Keep and operate the equipment in a proper and prudent manner and in accordance with the manufacturer's instructions.
   b. Not make any additions, modifications, or adjustment to the equipment without the company's prior consent.
   c. Provide access to the company to view the equipment.
7. The company shall use it responsible endeavors to keep the equipment in efficient operating conditions but shall have no liability for:
   a. Any damage to the customers property
   b. Any failure to perform the contract by reason of circumstance beyond its control.
   c. Failure of percolation area.
8. The company shall renew the contract only on signing of new contract and payment of maintenance agreement charge.
9. The company is personal to the customer and may not be assigned without the company given prior written notice. The company will accept no responsibility to a third party for any information given to the customer.
10. No variation or amendment of the contract shall be binding on the company unless confirmed by it in writing.

➢ Percolation Maintenance Procedure (Over 45m2 in Size) To be completed every 6 months

Step 1:
Before you can flush the system, you will need to build up a reserve of clean water in your sewage treatment unit. To do this, turn the **mains power to your sewage treatment system OFF** then open the lid in the last chamber on your sewage treatment unit. (The last chamber is the final chamber in the sewage treatment unit where the submersible pump is situated – generally under a green plastic box/lid)

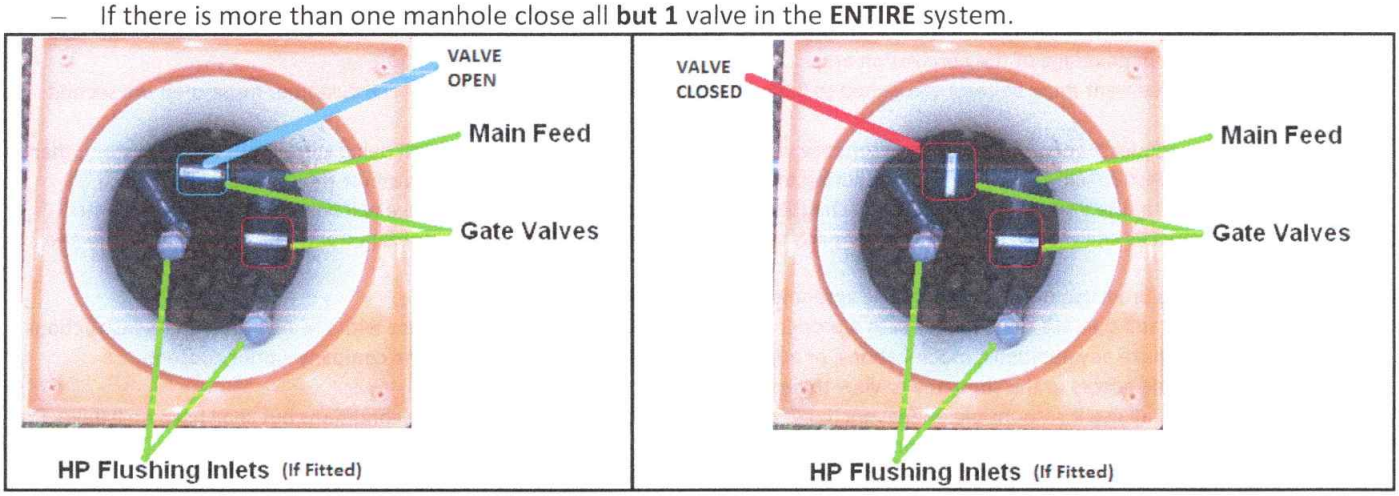
Step 2:
Open all manholes in the Pumped Polishing Filter.



Step 3:
Open ALL caps in the end manhole that has **NO** gate valves inside as per example below.

Step 4:
Close all but **1** of the Gate Vales as per the photo below. (there may be more than one manhole with gate valves in your system depending on design)

- If there is more than one manhole close all **but 1** valve in the **ENTIRE** system.



Note: HP Flushing Inlets (If installed) are for Sepcon's use only and should **not** be opened for general maintenance.

Step 5:
Power up the sewage treatment system for 40 seconds to flush the line.
(Effluent should pump through only **one** of the pipes.)

Step 6:
Close the already Open Gate Valve and Open the Next Closed Valve

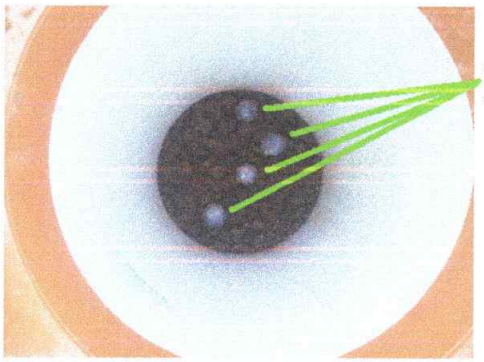
Step 7:
Repeat STEP 5 and STEP 6 until all pipes are flushed.

➢ Percolation Maintenance Procedure (Sand Filters and Percolation <45m2 ONLY) To be completed every 6 months

Step 1:
Before you can flush the system, you will need to build up a reserve of clean water in your sewage treatment unit. To do this, turn the **mains power to your sewage treatment system OFF** then open the lid in the last chamber on your sewage treatment unit. (The last chamber is the final chamber in the sewage treatment unit where the submersible pump is situated – generally under a green plastic box/lid)

Step 2:
Open all manholes in the Pressurised Polishing Filter.

Step 3:
Open ONLY 1 cap in the end manhole as per example below.



Step 4:
Power up the sewage treatment system for 40 seconds to flush the line.
(Effluent should pump through only **one** of the pipes.)

Step 5:
Close the already Open Cap and Open the Next Closed Cap

Step 6:
Repeat STEP 4 and STEP 5 until all pipes are flushed.

Warning: Failure to maintain your system as per the instructions in this guide every 6 months can result in the distribution pipes blocking. Should the pipes block fully, the percolation system may need to be replaced at the owner's expense.

Sepcon also offer scheduled maintenance plans to ensure your system is kept in as new condition – Call 01 6287300 or see Sepcon.ie for more information.

Commissioning Note

Product tested to EN 12566-3 and approved conformity to NSAI S.R.66:2015 by Prüfinstitut für Abwassertechnik GmbH

Sepcon
SEWAGE TREATMENT SYSTEMS
Sepcon, Moyglare Road, Kilcock, Co. Meath

Supplied to:

Roe Savin Construction Ltd

Unit 10 Block A
Oak Road Business Park,
Oak Close,
Dublin
D12 C920, Ireland

Outlet	Sepcon - Kildare
Job #	SEP128634
Installation Date *	18/07/2024
Account Number	SEP8219
Account Type	COD
Current Install Status	Completed (Subject to change)
Invoiced	Yes (Subject to change)
Delivered By	B Install Crew 2 - TR Lead

***All warranty periods start from the installation date.**

General Details

Our Reference #	Sale Type	P. O. #	Delivery Site Address
SEP128634	Sepcon BAF TT		Tara Hall, Tara Hall. Balscadden Road,, Dublin, Howth, D13 W304, Ireland

System Details

System Make	System Design PE	System Type	First Service Due Date~ (see notes)
Sepcon BAF Twin Tank	8PE	Domestic Sewage Treatment System	18-Jul-2025 12:00 AM

System Serial Number	Batch ID
3SEP128634	

Sepcon Commissioning - Pre-Departure Checklist (Only applicable if commissioning is purchased with a Sepcon BAF TT)

Item	Result	Additional Notes
Risers to clients approved height	CONFIRMED	Risers supplied after delivery are charged extra
Control panel checked	CONFIRMED	
Air blower sensor check		
Pump connection & internal wire bundles neat	CONFIRMED	
High level alarm float position correctly		
Representative on site has a copy of owner's manual	CONFIRMED	

Client / Contractor Checklist – Tank Backfilling & Start-up

Please Note: The following is a recommendation of checks that should be completed by the client / contractor to ensure a complete installation.

Item	Task Complete?	Signed	Print Name	Date
Inlet and Outlet pipe is supported with suitable backfill	✓			
The mains power cable is connected to the control panel inside the green box in the top of the tank				18/7/24
All lids are undamaged and are securely fastened				
The tank is securely fenced off from children & pets				
The tank is humming gently when powered up - non-stop with no timers fitted.				
After landscaping the risers are not below finished ground level				
The end-user has a copy of the owner's manual				

Notes	
~ In order to maintain your extended parts cover, remember to have your sewage system serviced by Sepcon before: 18-Jul-2025 12:00 AM	
1.00	VAT TO BE ACCOUNTED FOR BY THE PRINCIPAL CONTRACTOR
1.00	Supply & Install WWTS
1.00	Supply & Install WWTS - Deposit paid on invoice #128634

Document Approved By (If Required)

CE Declaration of Performance

1. **Classification of Product:**
   Small wastewater treatment system for up to 50PT – Packaged and/or Site Assembled Domestic Waste Water Treatment Plant as set out in EN12566 Part 3.

2. **Name of Product:**
   BAF PE 6 to PE 50

3. **Product Characteristics**

Material	Precast Concrete
Technology	Biological Aerated Filter (BAF)
Shape	Rectangle concrete tank(s) with concrete and PVC access lids

4. **Intended for Use:**
   To treat domestic wastewater subject to normal operation in accordance with the owner's manual. This product is a component of an overall wastewater treatment system, that should be designed and installed in accordance with a site suitability assessment.

5. **Name, Address and Contact Information of Manufacturer:**
   Sepcon,
   Moyglare Road,
   Kilcock,
   Co. Meath
   Ireland

6. **System of Assessment of Verification as set out by the CPR, Annex V:**
   System 2+

7. **Name, Address and Notified Body Number of Notified Body who carried out Initial Type Testing**
   Prüfinstitut für Abwassertechnik GmbH
   Hergenrather Weg 30,
   D-52074 Aachen,
   Germany, NB 1739

8. **Declared Performance**

Treatment Performance:

Essential Characteristic	Performance		Harmonised Technical Specification
Nominal Organic Daily Load ^ **Nominal Hydraulic Daily Load ^**	0.32kg/d 0.90m_3/d		N/A
COD **BOD_5** **SS** **NH_4**	91.7 % 95.5 % 94.2 % 94.5 %	61mg/l 15mg/l 25mg/l 1.7mg/l	IS EN 12566-3
Electrical Power Consumption ^	1.1 kWh/d		

^ The data above relates to the test model only. Larger systems are scaled in accordance with SR66:2015 & EN12566-3

Material Performance:

Essential Characteristic	Performance	Harmonised Technical Specification
Water Tightness	Pass	IS EN 12566-3
Crushing Resistance	Pass (also wet conditions)	
Durability	Pass	

9. **The performance of the product identified in points 2 is in conformity with the declared performance in Point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.**

Ann Ryan
Director

02/09/2020

IMPORTANT NOTICE

INSTALLER / GROUNDWORKER

- Ensure the base of the tank is completely level - Always consult your engineer before backfilling.
- Finish ground level is 1 ½ " / 40mm below the riser(s) – **not the lids!**
- Always leave enough MAINS POWER CABLE inside the tank to allow for the green control box to be completely removed for maintenance.
- Ensure the electrician has connected the mains power cable on **both** ends.
- Always check and sign off **all** sections on the commissioning note, this is provided to the customer who originally ordered the sewage system.
- Ensure the entire tank is adequately fenced off from children and pets.
- If the tank is not in use for extended periods we recommend that you leave it running to avoid flooding or moisture issues with the electrics.
- A copy of the commissioning note and the original owner's manual must be handed over to the end user upon handover.
- **Ensure the tank is powered on and is humming gently before handover to the end user.**

HOMEOWNER / PROPTERY MANAGER

- Be sure to call 01 6287300 to register your sewage system **1 week before** moving in.
- Always operate and maintain the sewage system in accordance with the owner's manual. If you require a copy, please contact 01 6287300
- All warranties begin from the date of tank installation.
- Failure to maintain the system by a competent person annually shall void any warranty.
- For annual maintenance call Sepcon on 01 6287300

Sepcon BAF Sewage Treatment System

"Twin Tank", "TT" Tank

CE

OWNERS MANUAL

Disclaimer
The property owner is responsible for adhering to this Owners Technical Manual. Sepcon accepts no liability in the event of a failure resulting from not adhering to this manual

Information about the documentation.

1.1 About this documentation

- Read this documentation before initial operation or use. This is prerequisite for safe, trouble-free handling and use of this product.
- Always observe safety instructions and warnings in this documentation and on the product.
- Keep these operating instructions and warnings in this documentation in an accessible place near the product and make sure these operating instructions are furnished to any new operator or owner.

1.2 Explanation of symbols used

Warnings alert persons to hazards that occur when using this product or operating near the product

⚠ DANGER

DANGER!

- Draws attention to imminent danger that will lead to serious personal injury or a fatality.

⚠ WARNING

WARNING!

- Draws attention to a potential treat of danger that can lead to serious personal injury or a fatality.

⚠ CAUTION

CAUTION!

- Draws attention to a potentially dangerous situation that could lead to a slight personal injury or significant damage to the equipment or other property.

1.3 Warning Notices

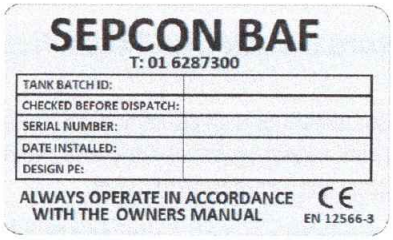
- **DO NOT ENTER!**

Never open any lid unless professionally trained to do so.

1.4 Product Information

Sepcon BAF systems are designed to treat typical domestic wastewater effluent as tested and certified by EN12566-3. The product should be operated in accordance with this documentation and untrained persons should never enter the system.

Product Information Identification:



1.4 Declaration of conformity

We declare that the product described here complies with the applicable directives and standards. A copy of the declaration of performance can be found within this documentation.

The technical documentation is sourced here:

Sepcon | Moyglare Road |Newtown | Kilcock | Co. Kildare

1.5 Safety Precautions

1.51: Tank Weights:

Each tank weighs 2,050 kilograms. They should only be lifted using appropriate equipment that is certified to lift the weight of the tank into its final resting position. Consult the operators manual for the proposed lifting equipment. Under no circumstances should a lift take place using uncertified machinery, chains or shackles. The Sepcon BAF TT must only be lifted by machine operators that know their equipment capabilities and are fully familiar with the safe lifting of heavy concrete products.

1.52: Precautions:

- Ensure that all the information contained in this manual is always adhered to. Treated wastewater is not suitable for human consumption.
- It is important that the Sepcon BAF system is fenced with a provision for a secure maintenance access gate to prevent accidental access. (this is the responsibility of the owner)
- Manhole lids are rated to 125kg and are for pedestrian use only. **Never drop lids and always replace cracked or damaged lids immediately.**
- Never enter a Sepcon BAF system, unless fully qualified and equipped to do so.
- Never disconnect the power to the air pump, it is imperative that it is running 24 hours a day, every day.
- Naked flames shall not be used in the vicinity of the tank due to the danger of combustion.
- The manhole covers shall never be left off an unattended tank.
- Sewage and sewage effluent can carry micro-organisms and gases harmful to human health. Any person carrying out work on the system must be appropriately trained. Suitable protective clothing: including gloves, goggles should always be worn. Always remove contaminated clothing and protective equipment after working with sewage treatment plants. Wash hands and face prior to eating, drinking or smoking.
- If the audible alarm sounds, we recommend that you contact Sepcon or a suitability qualified firm immediately and reduce the inflow from the dwelling to the system until an engineer arrives.

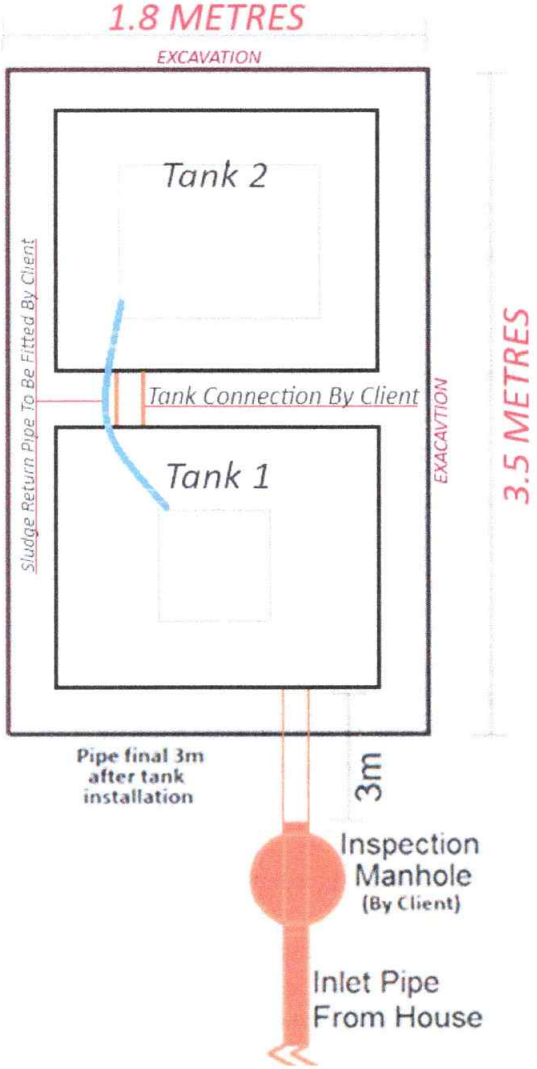
1.3 Electrical & Maintenance

- All electrical work to be carried out by competent persons using suitable materials for the application.
- Do not open the tank cover without firstly isolating the mains power.
- Electrical work must be carried out strictly to the manufacturer's instructions and to the relevant national rules for electrical installations. An electrical diagram of the control panel is available from Sepcon.
- When working with machinery / electrical equipment, proximity of water shall be noted. Electrical equipment shall not be wet when working with it.
- There is potential danger when de-sludging and therefore this shall never be done alone or by an unqualified person.

2.1 Installation - Site Preparation & Excavation Guidance

Excavation Requirements for the installation of Sepcon BAF TT (Twin Tanks)

Excavation Plan View:



1. Your Considerations Before Installation Takes Place:

➢ Health & safety provisions

Ensure you have completed a safety risk assessment and all personnel on site are properly trained and briefed. Take note within your risk assessment that our crane requires a complete clearance of overhead cables in the tank installation location.

➢ Minimum separations in accordance with your planning approval and building regulations

Your site layout plan should have the proposed location of the tank. If you propose moving the tank to a different location this may be possible subject to approval from your engineer.

➢ Site access & ground conditions

If Sepcon is placing the tank, our delivery trucks require firm ground conditions to travel on. In fine summer conditions this could be normal untilled grass. In other seasons throughout the year, suitable provision should be made prior to the delivery truck arrival on site to allow unrestricted access to the excavation. Our delivery truck will need to reverse right up to the excavation. **Please Note:** The tanks weigh 2 tons (each) and may be suitable to be lifted with an appropriate machine subject to having the correct and certified lifting equipment available.

➢ High water table & pumping equipment

If there is a high-water table, we strongly recommend that you have suitable pumping equipment which can keep the water table below the resting place for the tank during the placement. Sealant must be applied to any additional risers fitted to the tank which bring the access manholes to the proposed finished ground level. Please note although sealant is applied, we cannot guarantee a watertight seal on any risers and the client should confirm a watertight seal before backfilling the tank.

➢ Bedrock & rock breaking equipment

If there is bedrock in the excavation this must be broken prior to our delivery arriving on site. It is imperative that the base of the excavation has no rocks showing that could put isolated pressure on the tank base.

➢ Tank base preparations prior to fitting tank into the ground.

The tank must sit on a perfectly level base that is firm and capable of taking a loading of 2.5 tons per m2. The client is responsible for preparations of the tank foundation. The Sepcon delivery driver cannot officially confirm the suitability of the tank foundation.

If you are in any doubt, we strongly recommend that you consult your engineer for advice before the delivery takes place.

2. After the tank is installed into the ground:

➢ Backfilling around tank

We recommend that you fill around the tank as advised by your engineer. Never backfill with rocks or other material which is more than 75mm in diameter. Take time to ensure that the transfer pipes and the inlet & outlet pipes are supported under a firm foundation and are not subject to damage from ground subsidence. The soil should finish at least 50mm below the top riser – **Never fill up to, or over the top of the tank lids and always ensure the pipes between both tanks are fully supported!**

➢ Installing the power cable into the tank

We generally supply power cable with the Sepcon BAF - (unless the distance is greater than 25m or if the system is a supply only and is installed by the customer directly). The power cable should be placed in through the riser and the water tight gland tightened. **Please Note: Ensure the power cable can reach at least 1.5m above the final riser to ensure the green box can be removed for periodical maintenance after the final electrical connection is made.**

➢ Connecting the mains power

In accordance with electrical regulations, your electrician is responsible for joining the power cable on **BOTH** ends and powering up the tank for the first time. We recommend that the MCB in the garage / house supplying the tank is C / motor rated. Your electrician can contact us should they have any questions. The tank must run 24 hours a day. You should always hear a light hum from the small air pump inside the green box.

2.2 After installation of the tank into the ground

- The delivery driver will normally stay on site to commission the system internals by installing the final components and electronic controls such as pump connections. They will also leave enough SWA Cable to reach the nearest building. (**25metres maximum**) The placement into the ground and connection of the SWA power cable is the responsibility of the client.

⚠ WARNING

The Sepcon BAF must be connected to the mains power by a suitability qualified electrical contractor. In accordance with electrical regulations, Sepcon cannot connect the power cable between the building and the tank.

- Please make sure that the final finished ground level is at least 50mm (2inches) **below** the top of the risers to prevent excess vegetation growth around the lids and to prevent flooding of the electronic controls in exceptionally wet weather. If in doubt have your engineer on-site to confirm the finished ground level. Any risers supplied & installed later will be charged separately.
- Backfill around the Sepcon BAF with suitable material with no large boulders or rocks greater than 50mm in diameter.

2.3 After the tanks are installed.

- We recommend an inspection chamber (AJ) be fitted just before the Sepcon BAF tank.
- If water is showing in the base of the excavation, we recommend you fill the tank to at least 50% to ensure stability.
- Ensure all connections between the tanks are secure and on a solid foundation.
- Never drive over the tanks.

2.4 Before moving into the building or allowing a load to enter the Sepcon BAF

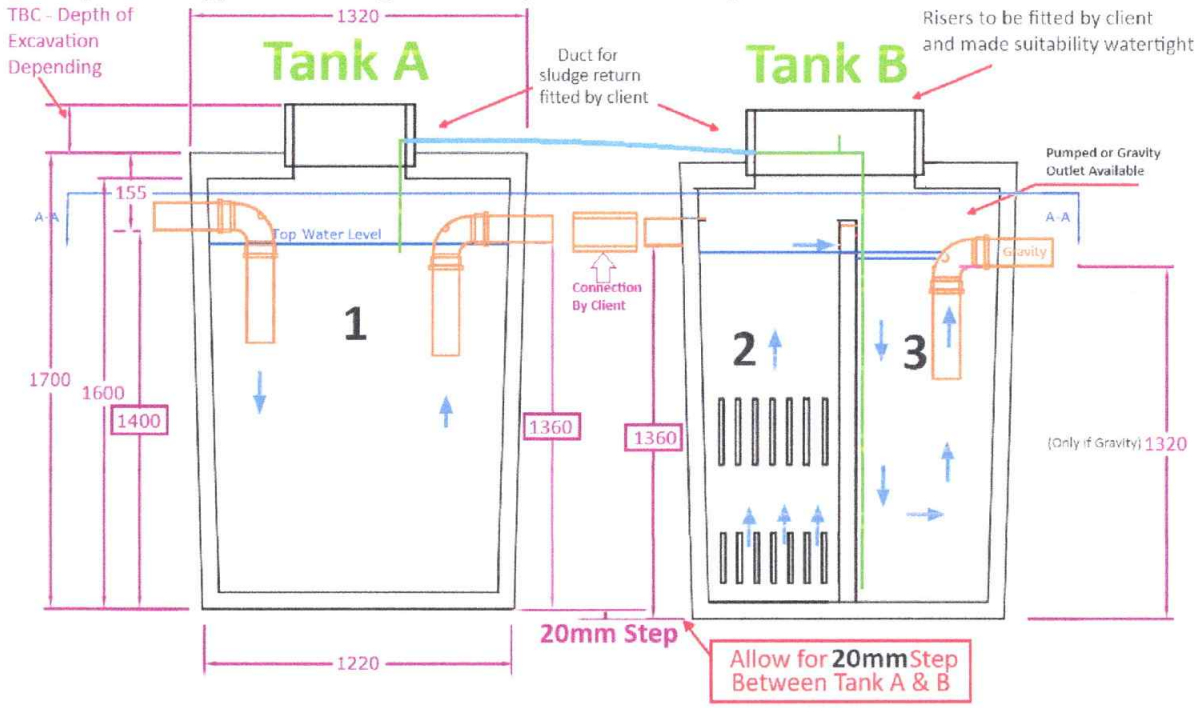
Please call Sepcon 1 week before moving in OR allowing a loading of wastewater to enter the Sepcon BAF - they will need to ask you to make a few basic checks to ensure the system has not been disturbed since installation and is ready to operate. We may require the system Serial Number which can be found under the green box hood.

⚠ WARNING

1. The Sepcon BAF must be securely fenced off to ensure children, pets, livestock, or machinery cannot gain access the tank(s). This is the responsibility of the property owner.

2. Always ensure the tank is powered and the air pump is running prior to putting any device or apparatus in the dwelling which is connected to the sewer into use.

3.1 System Typical Configuration (cross section)



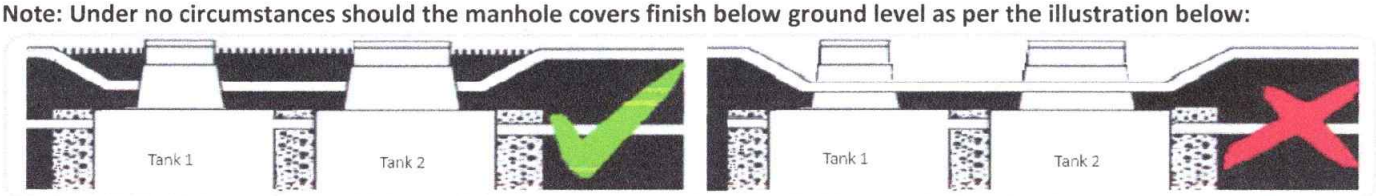
1. Primary Chamber 1
2. Primary Chamber 2
3. Aeration (treatment) Chamber
4. Final Settlement Chamber
5. Pumping Chamber

3.2 Manhole Risers

- Sepcon can supply risers to be fitted by the client. The risers should be lifted using a suitability certified and equipped excavator. All persons should be properly trained to handle the lifts.
- The maximum height of risers to be installed on a standard production model is 1 meter in total. If any additional risers are installed this shall be at the owner's risk and the delivery driver, distributor or manufacturer shall not be liable for any issues that may arise by installing the Sepcon BAF system deeper than the system design allows for.
- Sepcon also offer a special order 'Deep BAF' system that are suitable for handling risers up to 2 meters. Clients should specify a requirement for a deep BAF system when ordering and expect a lead time of up to 5 weeks from ordering. **Clients should also ensure a "Deep BAF" is clearly noted on the invoice prior to taking delivery.**
- Sepcon cannot guarantee the water tightness of any tank that is proposed to be or has been installed in areas which have high water tables. A high-water table shall be defined as ground water which can exceed the height of the proposed inlet pipe from the dwelling.
- It is important that all manhole risers are above the surrounding landscape by a minimum on 50mm. The elevation shall ensure that the tank cannot intake surface water during extreme weather periods such as flooding.

⚠ CAUTION
Sepcon cannot guarantee the water tightness of any tank that is proposed to be or has been installed in areas which have high water tables. A high-water table shall be defined as ground water which can exceed the height of the proposed inlet pipe from the dwelling.

Note: Under no circumstances should the manhole covers finish below ground level as per the illustration below:



Extra risers can be purchased from Sepcon for your BAF system. If manholes are less than 50mm above ground level after landscaping your property you should install additional risers.

4.1 Maintenance

⚠ WARNING

Any maintenance carried out inside the tank represents a confined space. Therefore, the maintenance person must be suitably trained to work in confined spaces. Sewage and sewage effluent can carry micro-organisms and gases harmful to human health. Any person carrying out maintenance on the system must be appropriately trained. Suitable protection equipment including coveralls, gloves and goggles should always be worn. Always remove contaminated clothing and protective equipment after completion of work. Wash hands and face and disinfect prior to eating, drinking or smoking.

A certain amount of maintenance is required on an ongoing basis to ensure that the system is working correctly. This is the responsibility of the owner.

4.2 Regular Maintenance (Every 30 Days)

The vent between the blower housing and the riser guarantees a fresh supply of air to the air blower. The vent under the desludging cover allows gas to escape and stops the tank from becoming pressurised. All vents should be checked to make sure they are not blocked or obscured. Ensure the air blower is working by listening for a gentle hum when standing beside the plant. Inspect pipework for blockages if necessary.

4.3 Annual Maintenance

⚠ CAUTION

The Sepcon BAF System requires a maintenance visit by a suitability qualified person **annually** to ensure all aspects of the system are operating optimally and worn or faulty parts are replaced. Failure by the owner to maintain the Sepcon BAF System could result in a system failure which could ultimately cause pollution.

Contact Sepcon on 01-6287300 or contact a suitability qualified and insured person to arrange a service visit. The system should also be checked thoroughly and dipped for sludge on a regular basis. This does not require entering the system. If in doubt consult suitability qualified person or contact Sepcon. The system must be desludged if the sludge level is more than 500mm deep in the primary chamber. The primary chamber is illustrated in section 3.1. For larger systems over 8PE – consult the system drawing for the location of the primary chamber(s). If you do not have a drawing, this can be provided by request.
During routine servicing, the service technician will perform a series of checks and procedures:

Annual Checks

- The air-diffuser is monitored to check for sufficient dispersion of air.
- The sludge return system is functioning correctly.
- The covers and locks are in place and in good condition.
- General appearance and condition of the treatment plant is good.

Annual Maintenance Procedures

- Test the blower pressure and condition.
- Replace the blower filter.
- Test the warning alarm.
- Tests the pump and float-switch (If applicable).
- Clear the vents of any blockages.
- The sludge return is checked and flushed if required and pressure calibrated.
- The sludge level in the primary chamber is measured.
- The diffuser manifold is adjusted if required (if applicable).

4.3 Overhaul Maintenance

Over time, components within the Sepcon BAF system will wear out and system performance will slowly deteriorate. Maintaining the Sepcon BAF system in accordance with this manual will delay the requirement to overhaul the system. Overhauling is typically completed every 10 to 15 years for a well-maintained system. Components which will require overhauling include, replacement of diffusers, bio-media, sludge return, air blower, outlet pump, alarm float and control panel. More periodic replacement of some mechanical components such as the air blower and outlet pump may be required at shorter intervals.

4.4 De-sludging (emptying the solid waste from chamber 1 the primary chamber as per section 3.1)

⚠ CAUTION

- There is the potential danger of falling into the tank during desludging when manholes
- may be open – take all necessary safety precautions when desludging.
- The system must be desludged if the sludge level is more than 500mm deep in the primary chamber **or** every 2 years – **Whichever comes first.**
- The de-sludging of the Sepcon BAF system is the sole responsibility of the owner.
- De-sludging should never be carried out alone or by untrained persons.
- Do not allow equipment or machinery to drive over any manholes. Always maintain a distance of at least 3 meters away from the covers on the Sepcon BAF wastewater treatment plant with any vehicles or plant machinery.
- The access cover should never be left open and unattended.

De-sludging is a critical part of the successful operation of the Sepcon BAF waste water treatment system and is the sole responsibility of the owner. Only competent approved personnel should carry out desludging.

Desludging Procedure:

1. Remove the de-sludging access cover(s)
2. Empty the Sepcon BAF plant chamber 1 using the vacuum tanker. Ensure the solids are removed with the liquid.
3. Care must be taken not to damage the plant with the hose of the vacuum tanker.
4. Replace the de-sludging access cover securely.

5.1 Operating and Design Conditions

- The manufacturer's installation, operation and maintenance instructions outlined in this manual must always be followed to ensure the Sepcon BAF system operates as designed. Any variations to these guidelines could result in the unit not performing to its full potential and the discharge may not meet the required standards. The property owner has a legal responsibility to ensure that the system does not cause pollution, a health hazard or nuisance. The Sepcon BAF system is one part of the overall wastewater treatment system, which includes many components (plumbing, ventilation, plant and polishing filter. Each component must function correctly for the overall system to work which is the responsibility of the owner.
- Percolations, drains and the emptying of primary chamber remains the sole responsibility of the property owner. Damage to the installation due to the influx of harsh chemicals or surface/ ground water or the backing up of soak ways, percolation areas or drains is not covered by the manufacturer or the distributor.
- The start-up period from when the system is brought into operation to peak performance is generally 120 days. The system should be loaded in a range between 50% and 85% for this period and a quantity of activated sludge may also be required depending on circumstances to build bacteria if performance is not in line with expectations after the start-up period at the owner's expense.
- The standard discharge pump supplied to a "Pumped" Sepcon BAF system provided a flow od 135 Litres per minute and a head of 2 metres. Larger discharge pumps may be fitted at the request of the customer. **The customer is solely responsible for ensuring the discharge pump is adequate for feeding the polishing filter.**

5.2 To ensure the continuance of the plant performance the user must take certain precautions including the following:

- The loading to the plant should never exceed the design capabilities and be reasonably spaced throughout a 24-hour period.
- High volume discharges such, as those from swimming pools and Jacuzzi's must never enter the Sepcon BAF system.
- Surface water must not enter the Sepcon BAF system.
- The use of kitchen grinders should be avoided if possible. (if using a kitchen food grinder desludging should be completed every 6 months)
- Non-standard domestic applications such as commercial cooking and cleaning is not suitable for the Sepcon BAF.
- Connecting granny flats, self-contained apartments, mobile homes, log cabins or extra bedrooms will significantly increase the loading on the Sepcon BAF. Any additional loadings should never exceed the design population of the plant in accordance with the EPA code of practice and/or building regulations.

5.3 Do not allow the following chemicals to enter the Sepcon BAF System including but not limited to:

- Water softener regenerate
- Disinfectants and Bleach
- Strong Acids and Alkalis, or Photographic Chemicals
- Oil, Fats or Grease
- Petrol, Diesel or Pesticides

5.4 Do not allow any of the following to enter the Sepcon BAF System:

- Large quantities of milk, alcohol or food (in excess of 1 litres per week per 6 household residents will cause problems)
- Bleaches or cleaners
- Baby wipes, cosmetic and cleaning wipes
- "Flushable" wipes
- Sanitary towels
- Tampons
- Kitchen paper
- Cotton buds
- Nappies
- Medication
- Any other none-degradable material

⚠ CAUTION
"Flushable" wet wipes are not suitable for use in the Sepcon BAF system. Although "flushable" wet wipes may be approved by third party organisations to not cause a potential sewer pipe blockage, such wipes can cause blockages within the Sepcon BAF and can also reduce the final effluent quality.

⚠ CAUTION
Sepcon shall not be liable for any damage or loss, including consequential loss, caused by the failure of any plumbing equipment or failure caused by the inclusion of prohibited material or actions, as listed in sections 5.1 to 5.3

6.1 Design Specifications

If others size the Sepcon BAF System, we will supply to these specifications. In this case, the responsibility lies with others in relation to the maximum flow/liters per day, the plant capacity and retention times. Similarly, if we size the plant by providing a site-specific report and a greater load is placed on the plant by the addition of extra houses, bedrooms, schools, offices, crèche's or by any other means, Sepcon are not responsible for the plant in terms of overloading or quality of effluent as the retention times may be compromised.

⚠ CAUTION
The air pump should run 24 hours a day. Never fit a timeclock or make any modifications without written approval from the manufacturer as this may cause the Sepcon BAF to malfunction.

6.2. Intermittent Use & Decommissioning

Should the Sepcon BAF System be used intermittently or if extended periods of non-use are expected (for more than 30 days), it is recommended that the Sepcon BAF System remain **powered on and in operation**. The contents of the plant should not be allowed to go septic or stagnant due to non-use or under loading, this can occur when the Sepcon BAF System is operated below 35% of the maximum design loading for more than 30 days. Upon bringing the system back to normal operation after a period of under loading; activated sludge may need to be imported by a licensed contractor in order to restart the treatment process at the owner's expense.

If the system is to be decommissioned for an extended period (more than 90 days) or permanently, Sepcon can provide this service – contact 01 6287300 for a quotation or employ a suitably qualified contractor.

6.3 Access to the Sepcon BAF System

The tank structure or lids are not suitable for any vehicular traffic. All vehicles and machinery should always keep at least 3 meters from any tank lid. We also strongly recommend fencing off the area around the Sepcon BAF System to prevent livestock herds, pets, or children from accessing the tank. Unnecessary human traffic around the plant should be avoided.

7.1 Troubleshooting

Properly installed, operated and maintained Sepcon BAF systems will give many years of trouble-free service. All Sepcon BAF systems come fitted with an alarm, which will alert to irregularities in the plant. If a blower or pump stops working a buzzer will sound to indicate there is a problem with the plant. The buzzer can be muted
until the problem gets fixed. Once the problem is fixed, the alarm will reset automatically, and the mute switch must be turned off.

⚠ CAUTION
We strongly recommend that all works to the Sepcon BAF are carried out by a trained professional. Some of the solutions provided below may only be suitable to be actioned and resolved by a trained professional. If in doubt contact a trained professional or Sepcon who can conduct a site visit and assess and resolve the issue.

7.2 Sepcon BAF system operation

Symptom	Possible Causes	Solution
The alarm buzzer is sounding but the blower and discharge pump is working.	Air return pipe to the air sensor on the side of the control panel is not connected properly.	Check that the blue air pipe connecting into the control panel is connected properly. If no issue is identified, then the air blower may be malfunctioning and may need to be replaced.
	Electrical fault.	Get a suitability trained person to assess the fault and have it resolved.
	The electrical control panel is damp or wet.	Get a suitability trained person to assess the fault and have it resolved.
Discharge pump runs intermittently.	Float on pump stuck.	Ensure the pump is set so the float is free for contacting the chamber walls.
	Damaged or faulty float.	Get a suitability trained person to assess the fault and have it resolved.
Blower runs intermittently.	Electrical fault.	Get a suitability trained person to assess the fault and have it resolved.
	Blower worn out.	Get a suitability trained person to assess the fault and have it resolved.
	Overload switch tripped.	Reset the overload switch in the control panel. If problem persists, get a suitability trained person to assess the fault and have it resolved.
	Hot and sunny weather	Protect the green blower box from direct sunlight and ensure the vents are not blocked.
Blower or discharge pump not working.	Tripped out in house / garage.	Reset the trip switch in garage / house. If problem persists, get a suitability trained person to assess the fault and have it resolved.
	Not connected to mains.	Get a suitability trained person to make the connections.
Tripping mains fuse in house / garage.	The electrical control panel is damp or wet.	Get a suitability trained person to assess the fault and have it resolved.
	The air blower is damp or wet.	Get a suitability trained person to assess the fault and have it resolved.
	Damaged cable.	Get a suitability trained person to assess the fault and have it resolved.
Overflow from the sludge return vent pipe inside the Sepcon BAF	High airflow into the sludge return.	Adjust the flow value inside the green box to lower the air flow to a level that prevents overflow or get a suitability trained person to assess the issue and have it resolved.

7.3 Odours

Please Note: Before taking any corrective action, always positively identify the real source of the odor. Check if the smell is coming from another outside source such as a storm drain. All Sepcon BAF systems vent gases trough the side vent on the green box and back through soil pipe and out roof vents. Improperly installed roof vents can cause odor problems. Traps in drains prevent any odours from entering the home. To function, they must contain water and be sealed correctly.

Symptom	Possible Causes	Solution
Effluent / sewage odours directly outside the house or inside the house.	Pipe connections to sinks, toilets or drains not connected correctly or underused.	Inspect all under sink traps and U bends, ensure no traps go dry from lack of use. If problem persists have a suitability trained person conduct a smoke test.
	Soil stack / air vent pipe not fitted correctly.	Ensure the soil stacks / vents are not located adjacent to regularly opened windows. Ensure they are downwind of windows and openings and not near any ventilation vents.
	Pipework damaged, cracked or blocked.	Get a suitability trained person to assess the fault and have it resolved.
	Soil stacks / air vents not fitted to each end of pipework around / inside dwelling.	Get a suitability trained person to assess the fault and have it resolved.
Strong effluent / sewage odours in the tank vicinity.	Blocked pipework to the Sepcon BAF tank.	Inspect manholes around the dwelling, check for blockages.
	Chemical kill of bacteria in the Sepcon BAF tank.	Ensure the Sepcon BAF is operating correctly. If not and resolved and symptoms persist for more than 7 days have a suitability trained and licensed contractor remove all liquid from the Sepcon BAF system and reseed the system with 70% water and 30% activated sludge into the primary chamber.
	Lack of maintenance – poorly operating system	Get a suitability trained person to assess the fault and have it resolved.
	Imbalance of loading from dwelling.	Ensure that the loading to the Sepcon BAF system is in line with typical household operations. Ensure washing and cleaning products are used in proportion to the number of persons inhabiting the dwelling. If not and resolved and symptoms persist for more than 7 days have a suitability trained and licensed contractor remove all liquid from the Sepcon BAF system and reseed the system with 70% water and 30% activated sludge into the primary chamber.
	Overloading of the Sepcon BAF system.	Reduce the population in the dwelling too or less than the design loading. Have the Sepcon BAF desludged by a licensed contractor.
	Underloading / lack of use of Sepcon BAF system	Ensure the Sepcon BAF is not loaded less than 35% of the design population for more than 30 days.

Sepcon
SEWAGE TREATMENT SYSTEMS

Sewage Treatment System – Single House Maintenance Contract

Customer Details			
Customer #	SEP8219	**Date**	18/07/2024
Customer Name	**Roe Savin Construction Ltd**		
Billing Address	Unit 10 Block A Oak Road Business Park, Oak Close, Dublin D12 C920, Ireland		
Site Address of the System *(If Different)*	Tara Hall, Tara Hall. Balscadden Road,, Dublin, Howth, D13 W304, Ireland		
Contact Number			

Sewage System Details	
Make & Model	Sepcon BAF Twin Tank 8PE

Maintenance Contract Details			
Start Date		**Contract End Date**	
Contract Type			
Cost			
Extras Included			

What's included in this sewage system service contract	
Included: • 1 Service Visit • Sludge Level Check • Air Blower Pump Testing • Water Pump Testing & Cleaning • High Level Sensor Testing • Air Filter Change • Analogue Control Panel Testing • Pressure Switches Testing • Alarm Testing	**Excluded:** • Deliberate / Accidental Damage • Percolation Area / Polishing Filter • Desludging • Electrical Cable from house to the tank

Sepcon agrees to provide the services listed on this maintenance agreement subject to the terms and conditions below: *Signed for Sepcon:* *Contract Validation Job Number:* *NOTE: Contract is not valid unless signed and validated by Sepcon with a valid Service Contract Job Number*	*Please supply the services listed on this maintenance agreement subject to the terms and conditions below:* *Signed Customer:*

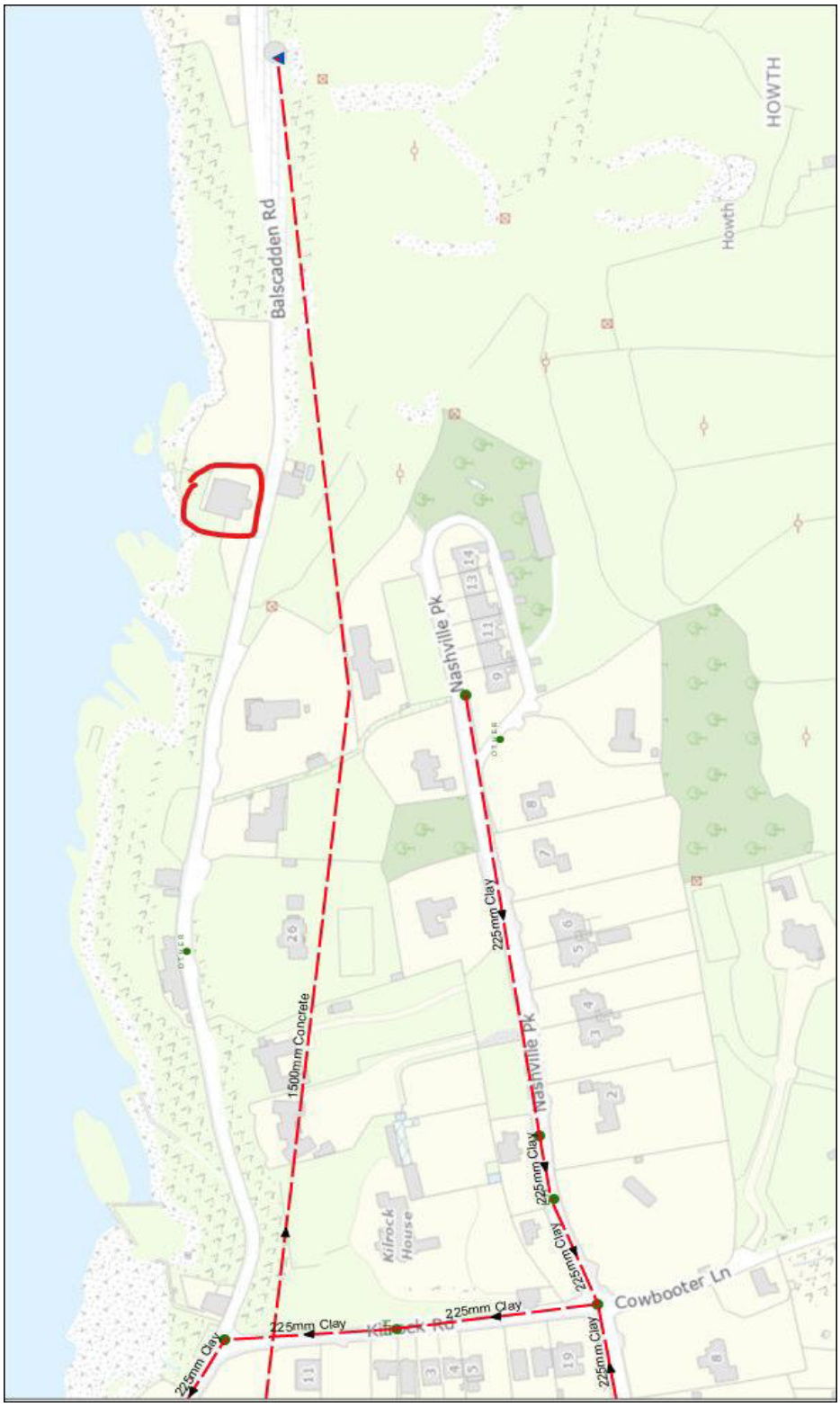
Important: This service agreement must be returned signed to the following address: Sepcon, Moyglare Rd, Kilcock, Co Kildare. The service must be booked by the customer by contacting Sepcon and choosing a suitable date. Sepcon is not responsible for booking in any service visits. The service must be booked in by the customer before the contract end date specified above.

Sewage Treatment System – Single House Maintenance Contract

Terms & Conditions

1. This maintenance contract shall continue for the period outlined only and is renewable upon expiration of that agreement by the customer.
2. The customer shall be responsible for contacting Sepcon to arrange any service visit including and service visit that is pre-paid.
3. The service must be booked in by the customer before the contract end date specified.
4. This agreement will not extend to:
    a. Modifications or additions to the equipment unless covered by warranty.
    b. Items in which the company's opinion can no longer be serviced or repaired subject to economic maintenance.
    c. Defects resulting from misuse or neglect of or accident to the equipment or failure to follow the instructions / advice of the company.
    d. Inspection, service or repair of the percolation area / polishing filter, sand filter or tertiary modules.
    e. Desludging of tank unless otherwise specifically included in the contract.
5. This service agreement must be returned signed to Sepcon, Moyglare Rd, Kilcock, Co Kildare. The customer must print and keep the second copy.
6. Sepcon will only issue a maintenance contract once the sewage treatment unit has been service and is in a fully functioning condition.
7. Additional services and the cost of replacement parts will be subject to extra charges in accordance with the company's terms then in force and relevant discount will be in line with the customers chosen maintenance contract
8. To facilitate the provision of this maintenance contract the customer shall:
    a. Keep and operate the equipment in a proper and prudent manner and in accordance with the manufacturer's instructions.
    b. Not make any additions, modifications or adjustment to the equipment without the company's prior consent.
    c. Provide access to the company to view the equipment.
9. The company shall use it responsible endeavours to keep the equipment in efficient operating conditions but shall have no liability for:
    a. Any damage to the customers property
    b. Any failure to perform the contract by reason of circumstance beyond its control.
    c. Failure of percolation area.
10. The company shall renew the contract only on signing of new contract and payment of maintenance agreement charge.
11. The company is personal to the customer and may not be assigned without the company given prior written notice. The company will accept no responsibility to a third party for any information given to the customer.
12. No variation or amendment of the contract shall be binding on the company unless confirmed by it in writing.
13. This maintenance contract will become null and void if the unit is modifications or tampered with.

Appendix B: Uisce Eireann Drainage Records



Appendix C: Uisce Eireann Watermain Records