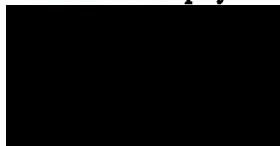


Comhairle Cathrach Chorcaí Cork City Council

Halla na Cathrach, Corcaigh - City Hall, Cork - T12 T997

William Murphy



10/10/2024

RE: **Section 5 Declaration R875/24 Kerry Pike, Coolymurraghue,
Cork**

A Chara,

With reference to your request for a Section 5 Declaration at the above-named property, received on 23rd September 2024, I wish to advise as follows:

The Planning Authority in view of the above and having regard to –

- Sections 2, 3 and 4 of the Planning and Development Act 2000 (as amended), and
- Articles 6, and 9 of the Planning and Development Regulations 2001 (as amended),

It is considered that *the specific question for which a declaration is sought* **IS DEVELOPMENT and IS NOT EXEMPTED DEVELOPMENT** at Kerry Pike, Coolymurraghue, Cork.

Under Section 5(3)(a) of the Planning and Development Act, 2000, you may, on payment of the appropriate fee, refer this declaration for review by An Bord Pleanála within 4 weeks of the date it is issued, 10th October 2024

Is mise le meas,


David Foley

Development Management Section
Community, Culture and Placemaking Directorate
Cork City Council



We are Cork.

PLANNER'S REPORT Ref. R 875/24		Cork City Council Culture, Community and Placemaking
Application type	Section 5 Declaration	
Description	<i>Is the replacement of an existing septic tank + soak pit with a site specific treatment unit and percolation area an exempted development.</i>	
Location	Kerry Pike, Coolymurragh	
Applicant	William Murphy	
Date	08/10/2024	
Recommendation	<i>Is Development and Is Not Exempted Development</i>	

In this report 'the Act' means the Planning and Development Act 2000 (as amended) and 'the Regulations' means the Planning and Development Regulations 2001 (as amended), unless otherwise indicated.

1. Requirements for a Section 5 Declaration

Section 5(1) of the Planning and Development Act 2000 as amended states,

5.—(1) If any question arises as to what, in any particular case, is or is not development or is or is not exempted development within the meaning of this Act, any person may, on payment of the prescribed fee, request in writing from the relevant planning authority a declaration on that question, and that person shall provide to the planning authority any information necessary to enable the authority to make its decision on the matter.

The requirements for making a section 5 declaration are set out in the Act.

2. The Question before the Planning Authority

In framing the question to the planning authority, the applicant states in Q3 of the application form:

Is the replacement of an existing septic tank + soak pit with a site specific treatment unit and percolation area an exempted development.

Under 'additional details' the following has been provided:

Details of specific site assessment, specification of treatment unit, percolation area and maps are attached with this application.

3. Site Description

The property in questions consists of an existing dwelling and garden.

4. Relevant Planning History

Permission was granted for lands to the east (rear) of the property to be subdivided from the site under planning permission ref. no. 22/41021. The development was described as:

Permission to construct a single storey dwelling , create two new vehicle entrances at existing entrance location, site specific treatment unit and associated works.

Permission was granted on 19/07/2022. It is unclear whether the work have started on the development.

5. Legislative Provisions

5.1 The Act

Section 2(1),

"works" includes any act or operation of construction, excavation, demolition, extension, alteration, repair or renewal and, in relation to a protected structure or proposed protected structure, includes any act or operation involving the application or removal of plaster, paint, wallpaper, tiles or other material to or from the surfaces of the interior or exterior of a structure.

Section 3(1),

In this Act, "development" means, except where the context otherwise requires, the carrying out of any works on, in, over or under land or 'the making of any material change in the use of any structures or other land'

Section 4(1)(h),

The following shall be exempted developments for the purposes of this Act-development consisting of the carrying out of works for the maintenance, improvement or other alteration of any structure, being works which affect only the interior of the structure or which do not materially affect the external appearance of the structure so as to render the appearance inconsistent with the character of the structure or of neighbouring structures;

Section 4(2),

Section 4(2) provides that the Minister may, by regulations, provide for any class of development to be exempted development. The principal regulations made under this provision are the Planning and Development Regulations 2001-2013.

Section 5(1),

(See section 1 of this report)

Section 177U (9) (screening for appropriate assessment)

In deciding upon a declaration or a referral under section 5 of this Act a planning authority or the Board, as the case may be, shall where appropriate, conduct a screening for appropriate assessment in accordance with the provisions of this section.

5.2 The Regulations

Article 6(1)

Subject to article 9, development of a class specified in column 1 of Part 1 of Schedule 2 shall be exempted development for the purposes of the Act, provided that such development complies with the conditions and limitations specified in column 2 of the said Part 1 opposite the mention of that class in the said column 1.

Article 9 (1)

Development to which article 6 relates shall not be exempted development for the purposes of the Act –

- (a) (i) if the carrying out of such development would... contravene a condition attached to a permission under the Act or be inconsistent with any use specified in a permission under the Act,*
- (viii) consist of or comprise the extension, alteration, repair or renewal of an unauthorised structure or a structure the use of which is an unauthorised use,*

6. ASSESSMENT

It should be stated at the outset that the purpose of this report is not to determine the acceptability or otherwise of the proposal at this location in respect to the proper planning and sustainable development

of the area, but rather whether or not the matter in question constitutes development, and if so falls within the scope of exempted development.

6.1 Development

The first issue for consideration is whether or not the matter at hand is 'development'.

'Development' as defined in the Act (3)(1) comprises two possible chief components: *'the carrying out of any works on, in, over or under land', or 'the making of any material change in the use of any structures or other land'*. In order to ascertain whether or not the subject use is considered to be development as so defined, consideration must first be given to whether any works on, in, over or under land have or will be carried out, and secondly to whether any material change in the use of any structures or other land have or will take place.

'Works' is defined in section 2(1) of the Act as *'the carrying out of any works on, in, over, or under land' including 'any act or operation of construction, excavation, demolition, extension, alteration, repair or renewal, and in relation to a protected structure or proposed protected structure, includes any act or operation involving the application or removal of plaster, paint wallpaper, tiles or other material to or from the surfaces of the interior or exterior of a structure'*.

I consider that the proposed replacement of the on site septic tank, and soak pit, with a site specific treatment and percolation area constitutes works and is therefore development.

6.2 Exempted development

The next issue for consideration is whether or not the matter at hand is exempted development.

Following a review of the relevant legislation I am satisfied that there is no specific exemption set out for the replacement of septic systems. I note that septic systems are also known as waste water treatment systems.

Some works, to existing structures, can be considered exempt in accordance with Section 4(1)(h) of the Act. I do not consider that this exemption is applicable for the provision of waste water treatment systems

A largely similar question was referred to An Bord Pleanála in Referral Case Ref. No. ABP-302930. Here the question posed was:

Whether the refurbishment of a timber house and associated infrastructure and entrance is or is not development or is or is not exempted development.

The Inspector's Report states:

There are no provisions within either the Planning and Development Act 2000 (as amended) or the Planning and Development Regulations 2001 (as amended) which refer to exemptions for this type development. I therefore conclude that the works carried out to the septic tank and percolation are development and are not exempted development.

The Board agreed with the Inspector's Recommendation and, in made 16/04/2019, confirmed that the works were development and not exempted development.

I therefore conclude that the proposed replacement of an existing septic tank and soakpit, with a site specific treatment unit and percolation area, is classed as development and is not exempted development.

7. ENVIRONMENTAL ASSESSMENT

7.1 Screening for Environmental Impact Assessment

Having regard to the contents of Article 103 (as amended by Article 14 of the Planning and Development (Amendment) (No 3) Regulations 2011) and Schedule 7 of the Planning and Development Regulations 2001 (as amended) it is considered that the proposed development by reason of its nature, scale and location would not be likely to have significant effects on the environment. Accordingly it is considered that an environmental impact statement is not required to be submitted.

7.2 Screening for Appropriate Assessment

Section 177U (9) of the Act requires planning authorities to screen applications for a section 5 declaration for appropriate assessment. The provisions of the *Habitats Directive*, the *Appropriate Assessment Guidelines for Planning Authorities 2009* (revised 2010) and the Act are noted. The relevant European sites are the Cork Harbour SPA (site code 004030) and the Great Island Channel cSAC (site code 001058). Having regard to the location of the proposed development site relative to these European sites and related watercourses and to the nature and scale of the proposed development it is considered that the proposed development would not affect the integrity of the European sites referred to above. Accordingly, it is considered that appropriate assessment is not required.

8. Conclusion

The question has been asked:

Is the replacement of an existing septic tank + soak pit with a site specific treatment unit and percolation area an exempted development.

Having considered the particulars submitted with the application and the relevant legislation as set out above, it is considered that the proposed replacement of an existing septic tank and soak pit, with a site specific treatment unit and percolation area, is development and is not exempted development.

9. RECOMMENDATION

In view of the above and having regard to —

- Sections 2, 3 and 4 of the Planning and Development Act 2000 (as amended), and
- Articles 6, and 9 of the Planning and Development Regulations 2001 (as amended),

it is considered that the proposed replacement of an existing septic tank and soak pit, with a site specific treatment unit and percolation area, **Is Development** and is **Not Exempted Development**.



Martina Foley
Executive Planner

COMHAIRLE CATHRACH CHORCAÍ
CORK CITY COUNCIL

Community, Culture & Placemaking Directorate,
Cork City Council, City Hall, Anglesea Street, Cork.

R-Phost/E-Mail planning@corkcity.ie
Fón/Tel: 021-4924029
Líonra/Web: www.corkcity.ie

SECTION 5 DECLARATION APPLICATION FORM
under Section 5 of the Planning & Development Acts 2000 (as amended)

1. NAME OF PERSON MAKING THE REQUEST

Mr. William Murphy

2. POSTAL ADDRESS OF LAND OR STRUCTURE FOR WHICH DECLARATION IS SOUGHT

Keary Pike, Coolymuraghue, Cork

3. QUESTION/ DECLARATION DETAILS

PLEASE STATE THE SPECIFIC QUESTION FOR WHICH A DECLARATION IS SOUGHT:

Sample Question: Is the construction of a shed at No 1 Wall St, Cork development and if so, is it exempted development?

Note: only works listed and described under this section will be assessed under the section 5 declaration.

IS the Replacement of an Existing Septic tank + Sockpit
With A site specific treatment unit and percolation
Area an Exempt Development?

ADDITIONAL DETAILS REGARDING QUESTION/ WORKS/ DEVELOPMENT:

(Use additional sheets if required).

Details of specific Site Assessment,
specification of TREATMENT unit,
Percolation Area And
Maps are Attached to this Application.

DEVELOPMENT MANAGEMENT
COR

23 SEP 2024

CORK CITY COUNCIL

4. Are you aware of any enforcement proceedings connected to this site?
If so please supply details:

5. Is this a Protected Structure or within the curtilage of a Protected Structure? ☒ No

If yes, has a Declaration under Section 57 of the Planning & Development Act 2000 been requested or issued for the property by the Planning Authority? ☒

6. Was there previous relevant planning application/s on this site? ☒
If so please supply details:

7. APPLICATION DETAILS

Answer the following if applicable. Note: Floor areas are measured from the inside of the external walls and should be indicated in square meters (sq. M)

(a) Floor area of existing/proposed structure/s	250 m ² Existing Dwelling
(b) If a domestic extension, have any previous extensions/structures been erected at this location after 1 st October, 1964, (including those for which planning permission has been obtained)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, please provide floor areas. (sq m) 75 m ² included in the 250 m ² Above
(c) If concerning a change of use of land and / or building(s), please state the following:	
Existing/ previous use (please circle)	Proposed/existing use (please circle)

7. LEGAL INTEREST

Please tick appropriate box to show applicant's legal interest in the land or structure	A. Owner <input checked="" type="checkbox"/>	B. Other
Where legal interest is 'Other', please state your interest in the land/structure in question		
If you are not the legal owner, please state the name of the owner if available		

8. I / We confirm that the information contained in the application is true and accurate:

Signature: _____

Date: 19.05.2024



cronin bio process ltd.

prosafe 8-50

Designed Tested & Certified to En12566-3



Date 18 February 2022

Customer Name Willy Murphy

Site Address Kerry Pike, Cork. T23 TV27 (Existing)

Maximum no. of residents	8
Groundwater Protection Response	R2 ¹
Depth of trial hole	1.6m
Depth from ground surface to bedrock	1.6m
Depth from ground surface to water table	n/a
T Value	19.17
P Value	n/a

- A Site Specific Report is a recommendation only from Cronin Bio Process Ltd., interpreting the CODE OF PRACTICE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS SERVING SINGLE HOUSES, 2009-ENVIRONMENTAL PROTECTION AGENCY.
- These recommendations are based upon the information supplied in the site characterisation form from the CoP 2009.
- A Site Characterisation form from the EPA CoP 2009 must accompany this site assessment.
- This site assessment only applies to the above named site.
- The on-site engineer or other recognised person is responsible for the design and completion of the percolation area/polishing filter.
- Cronin Bio Process Ltd. cannot be responsible for misinformation due to misleading information supplied on the site characterisation form.
- A substitute Wastewater Treatment System cannot be used instead of a PROSAFE 8-50 Concrete Wastewater Treatment System for this specific site.

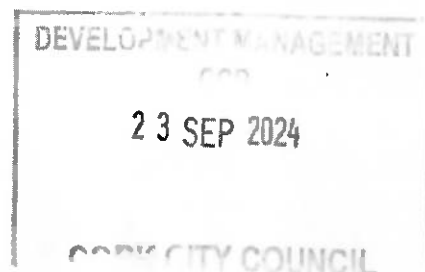
Conclusion from the Site Characterisation Form:

The site is suitable for discharge to groundwater by using a secondary treatment system followed by a percolation area.

Recommendation:

Cronin Bio Process Ltd. recommend a PROSAFE 8 CONCRETE WASTEWATER TREATMENT SYSTEM pumped to a sand polishing filter 16m²

Wastewater Treatment System & Percolation area to be installed by Cronin Bio Process Ltd. only.



APPENDIX A: SITE CHARACTERISATION FORM

File Reference:

1.0 GENERAL DETAILS (From planning application)

Prefix: First Name: Surname:

Address: Site Location and Townland:

Number of Bedrooms: Maximum Number of Residents:

Comments on population equivalent

Proposed Water Supply:

Mains ☒ Private Well/Borehole ☐ Group Well/Borehole ☐

2.0 GENERAL DETAILS (From planning application)

Soil Type, (Specify Type):

Subsoil, (Specify Type):

Bedrock Type:

Aquifer Category: Regionally Important ☐ Locally Important ☒ Poor ☐

Vulnerability: Extreme ☒ High ☐ Moderate ☐ Low ☐

Groundwater Body: Status

Name of Public/Group Scheme Water Supply within 1 km:

Source Protection Area: ZOC ☐ SI ☐ SO ☐ Groundwater Protection Response:

Presence of Significant Sites
(Archaeological, Natural & Historical):

Past experience in the area:

Comments:

(Integrate the information above in order to comment on the potential suitability of the site, potential targets at risk, and/or any potential site restrictions).

Potential risk to surface and ground water. Rock outcrops to east & south of site.

Note: Only information available at the desk study stage should be used in this section.

DEVELOPMENT PLAN LOCAL AUTHORITY

23 SEP 2024

CORK CITY COUNCIL

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment

Landscape Position: Elbow of hill

Slope: Steep (>1:5) ☐ Shallow (1:5-1:20) ☐ Relatively Flat (<1:20) ☒

Slope Comment Flat in proposed percolation area

Surface Features within a minimum of 250m (Distance To Features Should Be Noted In Metres)

Houses:

c.35m to North
c. 17m to south

Existing Land Use:

Garden/lawn

Vegetation Indicators:

Grass - generally good away from rock

Groundwater Flow Direction: North North West

Ground Condition:

Solid underfoot

Site Boundaries:

Existing

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Roads:

Private road c. 40m to west.

Outcrops (Bedrock And/Or Subsoil):

Outcrops to south & west

Surface Water Ponding:

None

Lakes:

None nearby

Beaches/Shellfish Areas:

None nearby

Wetlands:

None nearby

Karst Features:

None nearby

Watercourses/Streams:*

None nearby

*Note and record water level

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Drainage Ditches:*

None nearby

Springs:*

None nearby

Wells:*

None nearby

Comments:

(Integrate the information above in order to comment on the potential suitability of the site, potential targets at risk, the suitability of the site to treat the wastewater and the location of the proposed system within the site).

Local houses on mains water.

*Note and record water level

3.2 Trial Hole (should be a minimum of 2.1m deep (3m for regionally important aquifers))

To avoid any accidental damage, a trial hole assessment or percolation tests should not be undertaken in areas which are at or adjacent to significant sites, (e.g. NHAs, SACs, SPAs, and/or Archaeological etc.), without prior advice from National Parks and Wildlife Service or the Heritage Service.

Depth of trial hole (m):

Depth from ground surface
to bedrock (m) (if present):

Depth from ground surface
to water table (m) (if present):

Depth of water ingress: Rock type (if present):

Date and time of excavation: Date and time of examination:

Depth of Surface and Subsurface Percolation Tests	Soil/Subsoil Texture & Classification**	Plasticity and dilatancy***	Soil Structure	Density/ Compactness	Colour****	Preferential flowpaths	Hor
0.1 m <input type="checkbox"/>	R: 85, 70, 75 T: 2, 2, 1 SILT	Yes	Crumb	Soft	Brown	Rootlets	A
0.2 m <input type="checkbox"/>							
0.3 m <input type="checkbox"/>							
0.4 m <input type="checkbox"/>	R: 90, 100, 100 T: 1, 2, 1 SILT/CLAY	Yes	Crumb	Stiff	Rusl Brown	Rootlets	B
0.5 m <input type="checkbox"/>							
0.6 m <input type="checkbox"/>							
0.7 m <input type="checkbox"/>	R: 70, 55, 55 T: 1, 1, 1 SILT	Yes	Hard packed	Stiff	Red/beige	None	C
0.8 m <input type="checkbox"/>							
0.9 m <input type="checkbox"/>							
1.0 m <input type="checkbox"/>							
1.1 m <input type="checkbox"/>							
1.2 m <input type="checkbox"/>							
1.3 m <input type="checkbox"/>							
1.4 m <input type="checkbox"/>							
1.5 m <input type="checkbox"/>							
1.6 m <input type="checkbox"/>							
1.7 m <input type="checkbox"/>							
1.8 m <input type="checkbox"/>							
1.9 m <input type="checkbox"/>							
2.0 m <input type="checkbox"/>							
2.1 m <input type="checkbox"/>							
2.2 m <input type="checkbox"/>							
2.3 m <input type="checkbox"/>							
2.4 m <input type="checkbox"/>							
2.5 m <input type="checkbox"/>							
2.6 m <input type="checkbox"/>							
2.7 m <input type="checkbox"/>							
2.8 m <input type="checkbox"/>							
2.9 m <input type="checkbox"/>							
3.0 m <input type="checkbox"/>							
3.1 m <input type="checkbox"/>							
3.2 m <input type="checkbox"/>							
3.3 m <input type="checkbox"/>							
3.4 m <input type="checkbox"/>							
3.5 m <input type="checkbox"/>							

Likely Subsurface Percolation Value:

Likely Surface Percolation Value:

Note: *Depth of percolation test holes should be indicated on log above. (Enter Surface or Subsurface at depths as appropriate).

** See Appendix E for BS 5930 classification.

*** 3 samples to be tested for each horizon and results should be entered above for each horizon.

**** All signs of mottling should be recorded.

3.2 Trial Hole (contd.) Evaluation:

--

3.3(a) Subsurface Percolation Test for Subsoil

Step 1: Test Hole Preparation

Percolation Test Hole

	1	2	3
Depth from ground surface to top of hole (mm) (A)	400	400	400
Depth from ground surface to base of hole (mm) (B)	800	800	800
Depth of hole (mm) [B - A]	400	400	400
Dimensions of hole [length x breadth (mm)]	300 x 300	300 x 300	300 x 300

Step 2: Pre-Soaking Test Holes

Pre-soak start	Date	16-Nov-2021	16-Nov-2021	16-Nov-2021
	Time	09:00	09:00	09:00
2nd pre-soak start	Date	16-Nov-2021	16-Nov-2021	16-Nov-2021
	Time	12:15	12:15	12:15

Each hole should be pre-soaked twice before the test is carried out.

Step 3: Measuring T_{100}

Percolation Test Hole No.

	1	2	3
Date of test	17-11-2021	17-11-2021	17-11-2021
Time filled to 400 mm	09:14	08:52	08:50
Time water level at 300 mm	09:55	09:30	09:38
Time (min.) to drop 100 mm (T_{100})	41.00	38.00	48.00
Average T_{100}			42.33

If $T_{100} > 480$ minutes then Subsurface Percolation value >120 – site unsuitable for discharge to ground

If $T_{100} \leq 210$ minutes then go to Step 4;

If $T_{100} > 210$ minutes then go to Step 5;

Step 4: Standard Method (where $T_{100} < 210$ minutes)

Percolation Test Hole	1			2			3		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)
1	09:55	10:54	59.00	09:30	10:30	60.00	09:38	10:45	67.00
2	10:54	12:05	71.00	10:30	12:03	93.00	10:45	11:57	72.00
3	12:05	13:30	85.00	12:03	13:48	105.00	11:57	13:15	78.00
Average Δt Value			71.67			86.00			72.33
	Average $\Delta t/4 =$ [Hole No.1] 17.92 (t_1)			Average $\Delta t/4 =$ [Hole No.2] 21.50 (t_2)			Average $\Delta t/4 =$ [Hole No.3] 18.08 (t_3)		

Result of Test: Subsurface Percolation Value = 19.17 (min/25 mm)

Comments:

Step 5: Modified Method (where $T_{100} > 210$ minutes)

Percolation Test Hole No.	1					
Fall of water in hole (mm)	Time Factor $= T_1$	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) $= T_m$	$K_s = T_1 / T_m$	T-Value $= 4.45 / K_s$
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T-Value	T-Value Hole 1 = (T_1)				0.00

Percolation Test Hole No.	2					
Fall of water in hole (mm)	Time Factor $= T_1$	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) $= T_m$	$K_s = T_1 / T_m$	T-Value $= 4.45 / K_s$
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T-Value	T-Value Hole 2 = (T_2)				0.00

Result of Test: Subsurface Percolation Value =

0.00 (min/25 mm)

Percolation Test Hole No.	3					
Fall of water in hole (mm)	Time Factor $= T_1$	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) $= T_m$	$K_s = T_1 / T_m$	T-Value $= 4.45 / K_s$
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T-Value	T-Value Hole 3 = (T_3)				0.00

Comments:

4.0 CONCLUSION of SITE CHARACTERISATION

Integrate the information from the desk study and on-site assessment (i.e. visual assessment, trial hole and percolation tests) above and conclude the type of system(s) that is (are) appropriate. This information is also used to choose the optimum final disposal route of the treated wastewater.

Slope of proposed infiltration / treatment area:

Generally flat

Are all minimum separation distances met?

☒

Depth of unsaturated soil and/or subsoil beneath invert of gravel (or drip tubing in the case of drip dispersal system)

1.35

Percolation test result: Surface:

Sub-surface:

19.17

Not Suitable for Development

☐

Suitable for Development

☒

Identify all suitable options

1. Septic tank system (septic tank and percolation area) (Chapter 7)
2. Secondary Treatment System (Chapters 8 and 9) and soil polishing filter (Section 10.1)
3. Tertiary Treatment System and Infiltration / treatment area (Section 10.2)

Discharge Route ¹

To Groundwater

5.0 SELECTED DWWTs

Propose to install:

Tertiary Treatment System and Infiltration /treatment area

and discharge to:

Ground Water

Invert level of the trench/bed gravel or drip tubing (m)

-0.30

Site Specific Conditions (e.g. special works, site improvement works testing etc.

As utilisable space is limited then a packaged treatment system & gravity polishing filter is proposed. It is proposed to install a 6PE treatment unit with the treated effluent pumped to a sand polishing filter (Area = 16m² plan area - based on 6PE (6x150/56.25)). Pipes to be 32mm dia. with 4 to 6mm orifices at maximum 1m spacings and laterals at maximum 1m centres as per layout plan.

Base of the filter will be 300mm below ground level. Pipes to be no longer than 10m. Imported sand in 3 layers separated by pea sized gravel as per Table 10.2 & Fig 8.5 of C. O. P. overall height of sand filter to be 900mm - i.e. top of filter will be 500mm over existing ground. A 300mm layer of topsoil on geotextile membrane can be placed on top if desired. Distribution pipes and base to be vented if filter covered.

A 300mm layer of pea gravel (10-20mm) to be placed under sand filter. Size of this from Table 10.1, T = 19.17. 3.75 x 6PE = 22.5m² minimum.

The ground locally may need to be raised so that there is at least 300mm cover to the pipework.

¹ A discharge of sewage effluent to "waters" (definition includes any or any part of any river, stream, lake, canal, reservoir, aquifer, pond, watercourse or other inland waters, whether natural or artificial) will require a licence under the Water Pollution Acts 1977-90. Refer to Section 2.4.

6.0 TREATMENT SYSTEM DETAILS

SYSTEM TYPE: Septic Tank Systems (Chapter 7)

Tank Capacity (m³)	<input type="text"/>	Percolation Area	Mounded Percolation Area
		No. of Trenches	No. of Trenches
		Length of Trenches (m)	Length of Trenches (m)
		Invert Level (m)	Invert Level (m)

SYSTEM TYPE: Secondary Treatment System (Chapters 8 and 9) and polishing filter (Section 10.1)

Secondary Treatment Systems receiving septic tank effluent (Chapter 8)

Media Type	Area (m²)*	Depth of Filter	Invert Level
Sand/Soil	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soil	<input type="text"/>	<input type="text"/>	<input type="text"/>
Constructed Wetland	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>	<input type="text"/>

Packaged Secondary Treatment Systems receiving raw wastewater (Chapter 9)

Type	<input type="text"/>
Capacity PE	<input type="text"/>
Sizing of Primary Compartment	<input type="text"/> m³

Polishing Filter*: (Section 10.1)

Surface Area (m²)*	<input type="text"/>	Option 3 - Gravity Discharge	<input type="text"/>
Option 1 - Direct Discharge	<input type="text"/>	Trench length (m)	
Surface area (m²)	<input type="text"/>	Option 4 - Low Pressure	<input type="text"/>
Option 2 - Pumped Discharge	<input type="text"/>	Pipe Distribution	
Surface area (m²)	<input type="text"/>	Trench length (m)	
		Option 5 - Drip Dispersal	<input type="text"/>
		Surface area (m²)	

SYSTEM TYPE: Tertiary Treatment System and infiltration / treatment area (Section 10.2)

Identify purpose of tertiary treatment

Provide performance information demonstrating system will provide required treatment levels

Provide design information

Limited space available

See Treatment unit details/certs 6PE

Sand filter at 300mm BGL with 22.5m² stone bed under (300mm thick). See SSA

DISCHARGE ROUTE:

Groundwater	<input checked="" type="checkbox"/>	Hydraulic Loading Rate * (l/m².d)	<input type="text" value="56.25"/>	Surface area (m²)	<input type="text" value="16.00"/>
Surface Water **	<input type="checkbox"/>	Discharge Rate (m³/hr)	<input type="text"/>		

* Hydraulic loading rate is determined by the percolation rate of subsoil

** Water Pollution Act discharge licence required

6.0 TREATMENT SYSTEM DETAILS

QUALITY ASSURANCE:

Installation & Commissioning

To be supervised by suitably qualified installer and engineer/architect. All work to comply with COP2021

On-going Maintenance

System to be inspected every 6 months and desludged every 12 months and register of same to be maintained

7.0 SITE ASSESSOR DETAILS

Company: Gerard P Moynihan Consulting Engineer Ltd

Prefix:

Mr

First Name: Ger

Surname: Moynihan

Address:

Annahala,
Macroom,
Co. Cork.

Qualifications/Experience: BE CEng MIEI Eur Ing Fetac Level 5 Site Assessor

Date of Report: 23-Dec-2021

Phone:

087 2274041

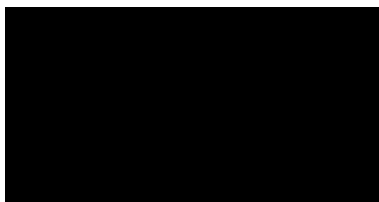
E-mail

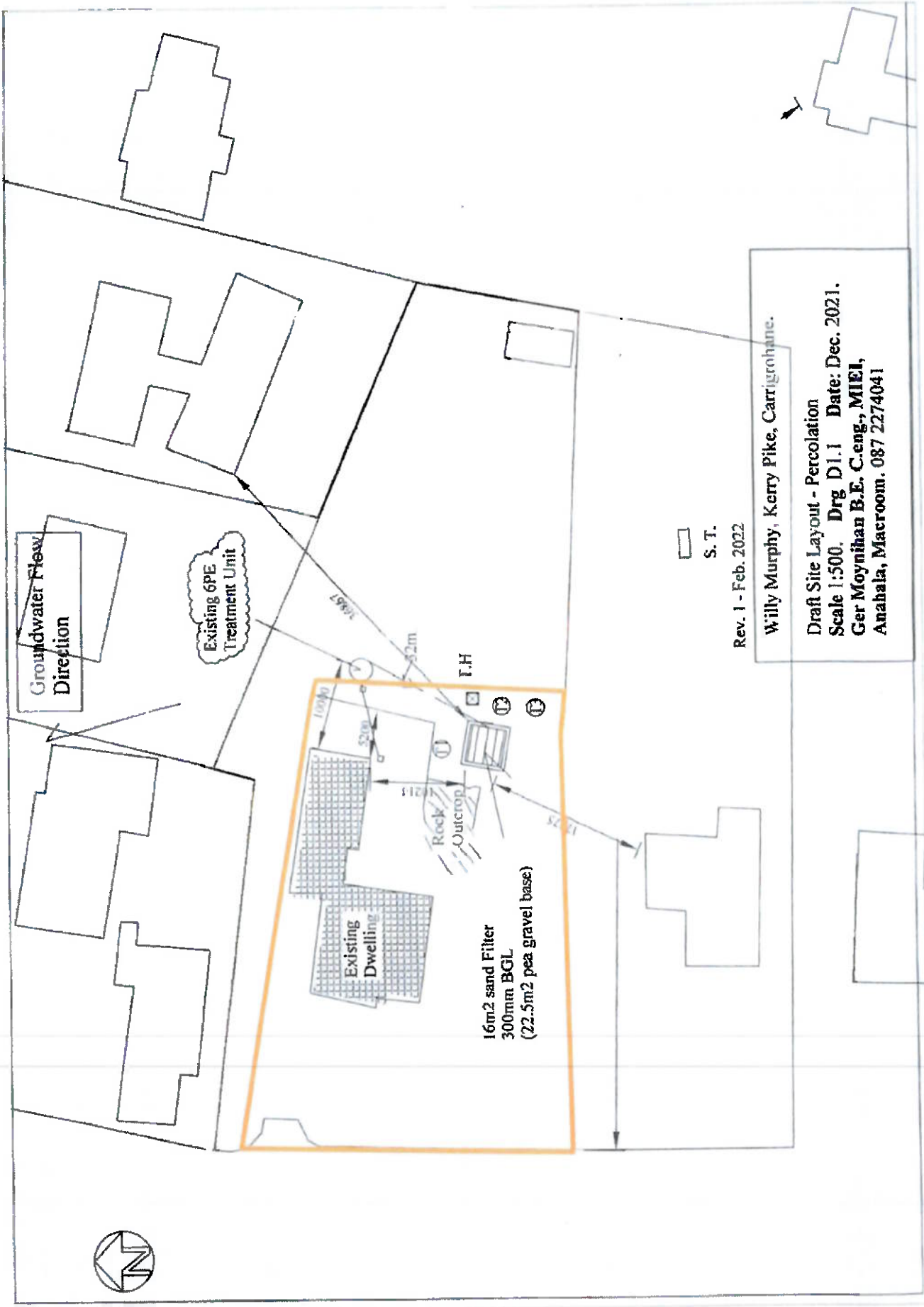
germoynihan1@hotmail.com

Indemnity Insurance Number:

20/1/04835

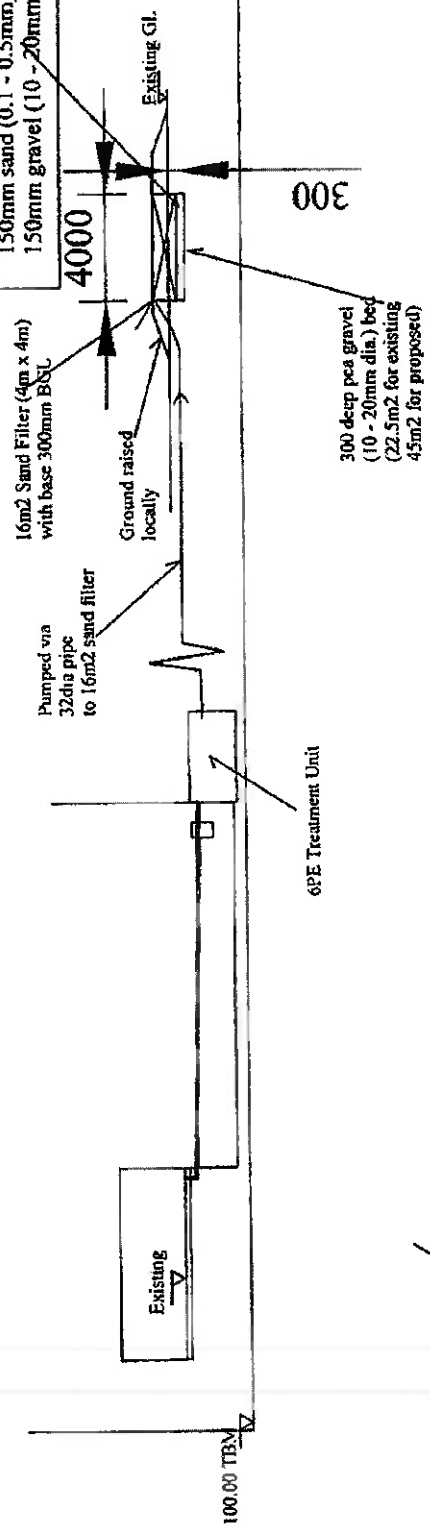
Signature:





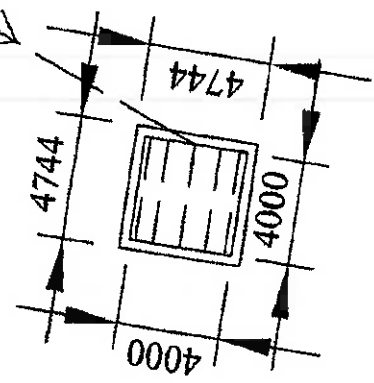
Willy Murphy, Kerry Pike, Carrigrohane.
Draft Site Layout - Percolation
Scale 1:500. Drg D1.1 Date: Dec. 2021.
Ger Moynihan B.E. C.eng., MIEI,
Anahala, Macroom. 087 2274041

- 200mm sand (0.4 - 1.4mm)
- 75mm pea gravel (10 - 20mm)
- 150mm sand (0.1 - 0.5mm)
- 75mm pea gravel (10 - 20mm)
- 150mm sand (0.1 - 0.5mm)
- 150mm gravel (10 - 20mm)



TYPICAL CROSS SECTION - House to treatment unit/Sand filter

16m2 sand Filter
22.5m2 pea gravel
base



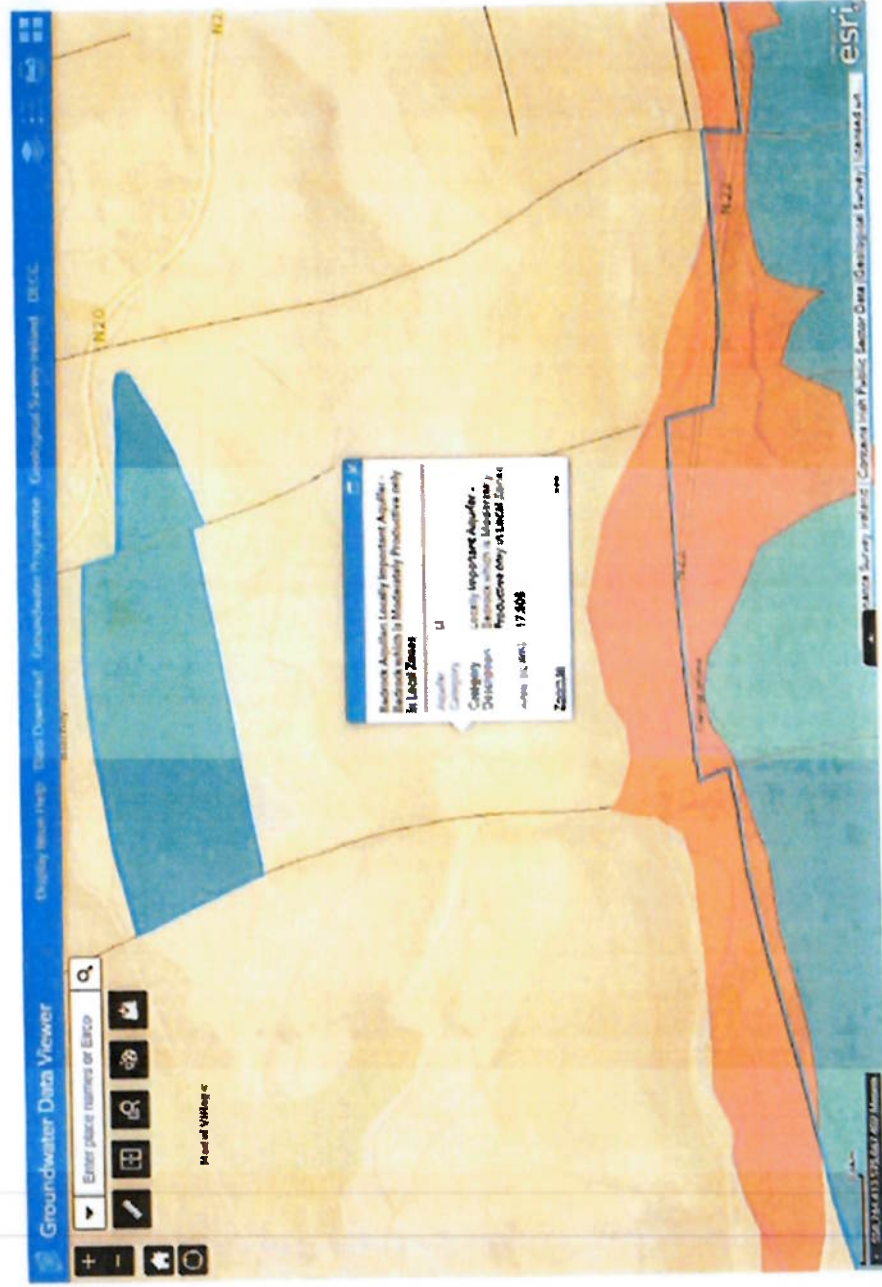
Plan of Sand Filter

Willy Murphy, Kerry Pike, Carrigrohane.
Percolation layout sections & levels.
Scale 1:250. Drg D1.3b Date: Feb. 2022.
Ger Moynihan B.E. Ceng., MIEI,
Anahala, Macroom. 087 2274041

Vulnerability



Aquifer



Discovery Map

GROUNDWATER
FLOW
DIRECTION



Ortho



EXISTING
TH ON EXCAVATION



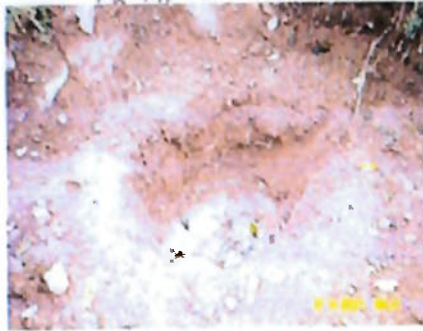
ROCK OUTCROP TO WEST



T₁ AFTER PRE-SOAK



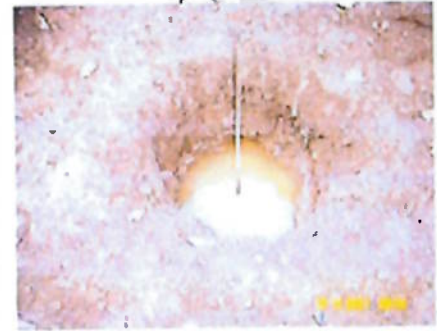
T₂ AFTER PRE-SOAK



T₃ @ 400



T₁ @ 300



T₂ @ 200



VIEW SOUTH



VIEW NORTH



VIEW EAST



T₂ @ 300



HOR B



HOR C



T₃ @ 200

