



APPENDIX 2

SITE LAYOUT DRAWINGS

NEW GATE PIERS & GATES
SET BACK 5.5M FROM ROAD
EDGE, ENTRANCE RADII 5.0M,
EXIT RADII 5.0M, WIDTH OF
ACCESS 4.8M.

NEW 1.25M HIGH WALL SET
BEHIND SIGHT SPLAY.

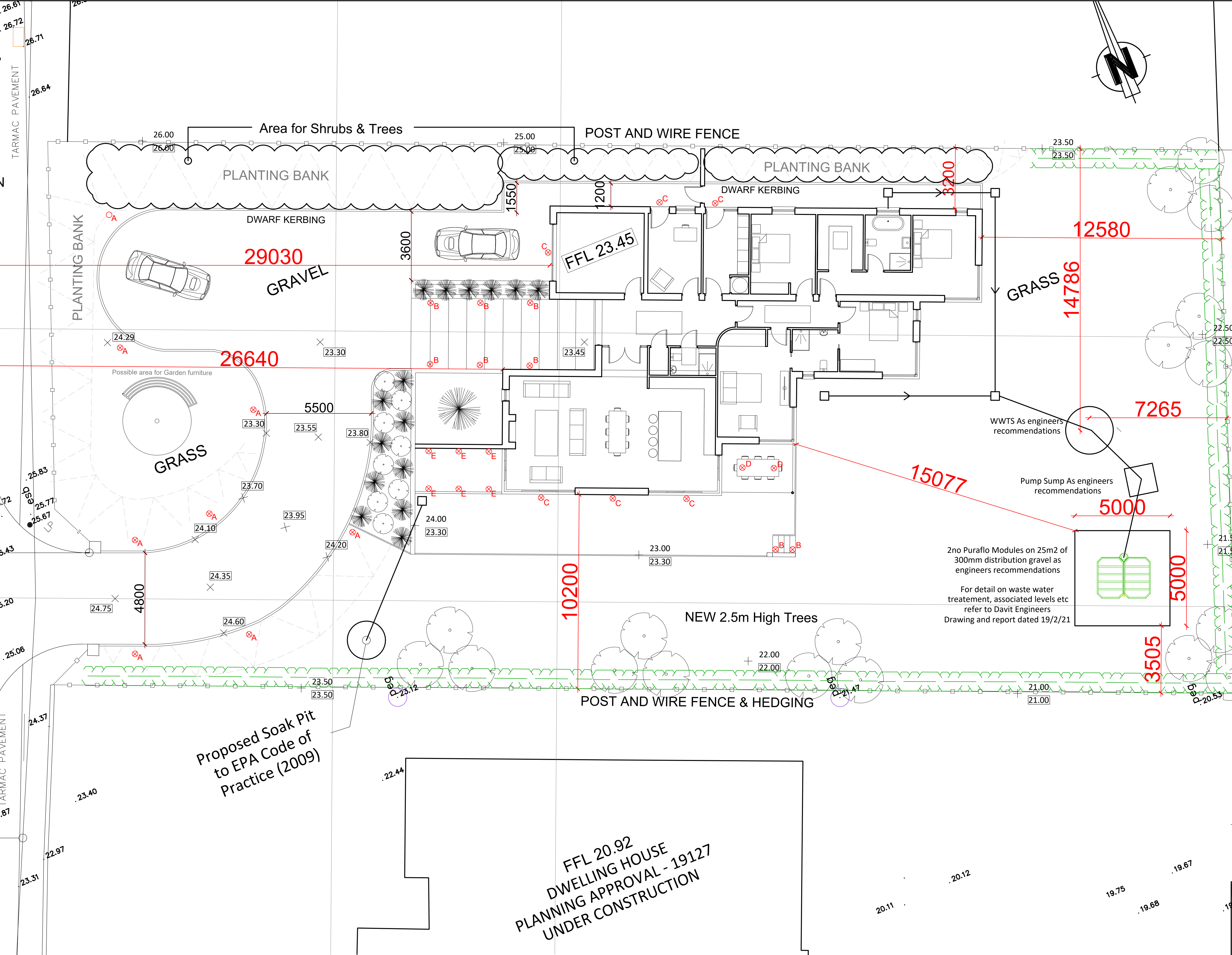
GRADIENT OF NEW ACCESS
NOT TO EXCEED 1/12.5 WITHIN
5M OF ROADWAY.

A

B

2.4M X 70M VISIBILITY
SPLAYS IN BOTH
DIRECTION
SHOWN DASHED IN
RED

SITE
ENTRANCE



POST AND WIRE FENCE & HEDGING
TIDY UP EXISTING NATIVE HEDGE AND
REINFORCE WITH NEW NATIVE HEDGE PLANTING

A

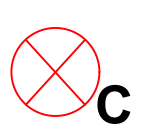
B

LIGHTING KEY:

ALL LIGHTING TO BE LED AND WARM WHITE SPECTRUM (IDEALLY <3000 KELVIN)



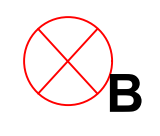
Bollard Luminaires- Midipoll
by ERCO



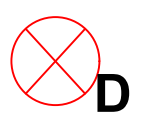
High Level Lights- Grasshopper
Narrow spot light by ERCO



Recessed Waterproof Wall Light
by AOM Lighting



Low level Facade Luminaires-
Lightmark by ERCO



Outdoor Recessed Spotlight-
Compact by ERCO

22.00 - EXISTING LEVELS
22.00 - PROPOSED LEVELS

E) External Lighting Layout Added 21.04.21 SS
D) Forecourt Softened, Corner Window at kitchen Reduced
07.04.21 SS
Wwt Plant amended to reflect Davit Report

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PROJECT: PRIVATE DWELLING HOUSE Balinacarr, Rosse Point, County Sligo	
CLIENT: AIDAN & MARGRET GLACKEN	
DWG TITLE: PROPOSED SITE PLAN	
CAD REF:	
DATE: JULY 2020	SCALE: 1:100 @ A1
DRAWN BY: RH	
DRAWING NUMBER: 16/51/101	REVISION: E



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PROJECT: PRIVATE DWELLING HOUSE Ballincarr, Rosser Point, County Sligo	
CLIENT: AIDAN & MARGRET GLACKEN	
DWG. TITLE: PROPOSED SITE SECTIONS	
CAD REF:	
DATE: JULY 2020	SCALE: 1:200 @ A1
DRAWN BY: RH	
DRAWING NUMBER: 16/51/300	REVISION: A



APPENDIX 3

SITE CHARACTERISATION REPORT AND WASTEWATER TREATMENT DETAILS

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Drumkeerin,
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Vat Reg. No. IE5833587C

Planning Dept,
Sligo Co Co,
City Hall,
Sligo,
Co Sligo.
19/02/2021

Re: Planning application for Aidan & Margaret Glacken @ Ballincar, Co. Sligo.

Dear Sir/Madame.

In regard to the above planning application I Francis Davitt will supervise and oversee the installation of the Waste Water Treatment System and tertiary treatment

Yours Faithfully



F Davitt Chartered B Eng, B Surveyor, MIEI, MSCSI, MCABE.

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19th February 2021

Planning Section
Sligo County Council
Quay Street
Sligo

Re: Proposed development of 1 no. dwelling at Ballincar, Co. Sligo for Aidan & Margaret Glacken.

Dear Sir/Madam

Further to our site assessment of the aforementioned site please find attached Site Characterisation Forms from the EPA's publication "*Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10)*" 2009. We are prepared to design the distribution area for construction and certify the installation of the distribution area.

In the course of this assessment, we examined 6no. percolation holes and we were present when the trial hole was being excavated. The results of the percolation tests are detailed below.

"T" = 17.03

"P" = 16.61

Discussion:

Ground conditions would indicate that a wastewater treatment system and polishing filter would be suitable to treat and dispose of the domestic wastewater generated by this development, however, we are recommending the use of a proprietary wastewater treatment system, packaged tertiary treatment system and distribution area.

We have noted that the Department of Culture, Heritage and the Gaeltacht have raised concerns about the cumulative effect of septic tanks/treatment systems in the area in the course of another planning application.

The appropriate response to the risk of groundwater contamination from an on-site wastewater treatment system is given by the assigned response category (R) appropriate to each protection zone. There is a Regionally Important Aquifer in this area and the Vulnerability rating is Moderate the Response Matrix for On-site Treatment Systems is R1. R1 is acceptable subject to normal good practice (i.e. system selection, construction, operation and maintenance in accordance with EPA (2000)).

We are proposing the use of a proprietary wastewater treatment system, tertiary treatment system and distribution area as well as proposing to increase the distribution area to 25m². Ground conditions are also favourable on this site and there will be further treatment for the wastewater in the soil. We note that the average "T" value is 17.03 which indicates that the retention time in the soil will provide satisfactory treatment. We have referred to Section 6.3, Interpretation of Percolation Test Results, of the EPA's publication "*Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10)*" 2009 this states that when the "T" value is between 3 and 50 the site is suitable for the development of a septic tank system or a secondary treatment system discharging to groundwater.

The standard of domestic wastewater treatment that we are proposing on this site exceeds the recommendations contained in the EPA's publication "*Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10)*" 2009 and we are satisfied that there will be no risk to the environment from the proposed development. This system has I.S.EN-3 and SR.66 certification and a Treatment System Performance Standard of (mg/L) 10BOD, 10SS and 10NH₃ which indicates that the system is capable of providing a very high quality of wastewater.

In order to ensure that the system continues to perform to these high standards into the future we are recommending that the following procedures are undertaken to prevent any malfunction of the system and also to notify the owner in the event of a malfunction.

Care of the proprietary wastewater treatment system into the future:

1. We have proposed that the wastewater treatment system is fitted with a visual and audible alarm to draw the attention of the householder to any malfunction of the system and also that a dial out alarm is fitted on the system that will notify the householder in the event of a malfunction through his mobile phone.
2. The wastewater treatment system and tertiary treatment aspect of the system must be serviced annually and a sample of the treated effluent shall be analysed and certified results provided to confirm the standard of the treated effluent. An annual contract shall be agreed with the supplier/manufacture of the system for the service and maintenance of the system.
3. The continued efficiency of the wastewater treatment system shall be certified by the supplier/manufacture after 10 years in operation to ensure the system is still performing to the original high standards.
4. The de-sludging of the wastewater water treatment system shall be carried out as directed by the system manufacturer/distributor. De-sludging shall be carried out by a waste disposal contractor who holds a current, valid waste disposal permit for the collection and disposal of sewage sludge.

How to construct the distribution area:

There will be 300mm deep gravel layer constructed in the existing ground and the Puraflo modules will then be positioned centrally on the gravel layer.

The treated effluent will be pumped from the wastewater treatment system up to the top of the Puraflo modules, it then gravitates down through the Puraflo modules and discharges directly onto the 300mm gravel layer.

Recommendations:

- 1) The installation of a proprietary wastewater treatment system certified in accordance with EN 12566-3 and SR 66.
- 2) The installation of a pump sump following the wastewater treatment system to transfer the treated effluent from the proprietary wastewater treatment system to the location of the tertiary treatment system and distribution area.
- 3) The installation of a dial out alarm system which will notify the householder on his mobile phone in the event of a malfunction in the wastewater treatment system.
- 4) Tricel have confirmed in their attached correspondence that they have identified the location of the sampling chamber on the system and both a visual and audible alarm for the system.
- 5) The installation of a 300mm deep gravel distribution area beneath the packaged tertiary treatment system.

According to the EPA, "the tertiary treated effluent has been treated to a high enough standard such that it can discharge to the groundwater. However, the hydraulic issue needs to be accounted for such that the effluent does not back up and create problems to the tertiary treatment process itself. Hence, some calculations have been carried out to discharge an appropriate percolation area for the discharge of such clean effluent depending on the T-value of the subsoil into which it is being discharged."

These calculations (which include a safety factor of 3.5) show that the area of subsoil required for the discharge of tertiary treated effluent, A is as follows:

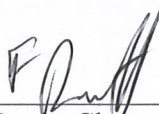
$$A = 0.125 \times T \text{ (m}^2 \text{ per p.e.)}''$$

$$A = 0.125 \times 17.03 \times 6 = 12.78\text{m}^2$$

I am proposing the installation of 25m² of gravel distribution area beneath the packaged tertiary treatment system. This gravel layer is greater than that required by the EPA formula, however, it will provide a further factor of safety in the system.

We attach a cross-section and a longitudinal section through the proposed domestic wastewater treatment and disposal system.

Yours Faithfully


F Davitt Chartered B Eng, B Surveyor, MIEI, MSCSI, MCABE.

Photos:



Trial hole



T test 1



T test 2



T test 3



P test 1



P test 2

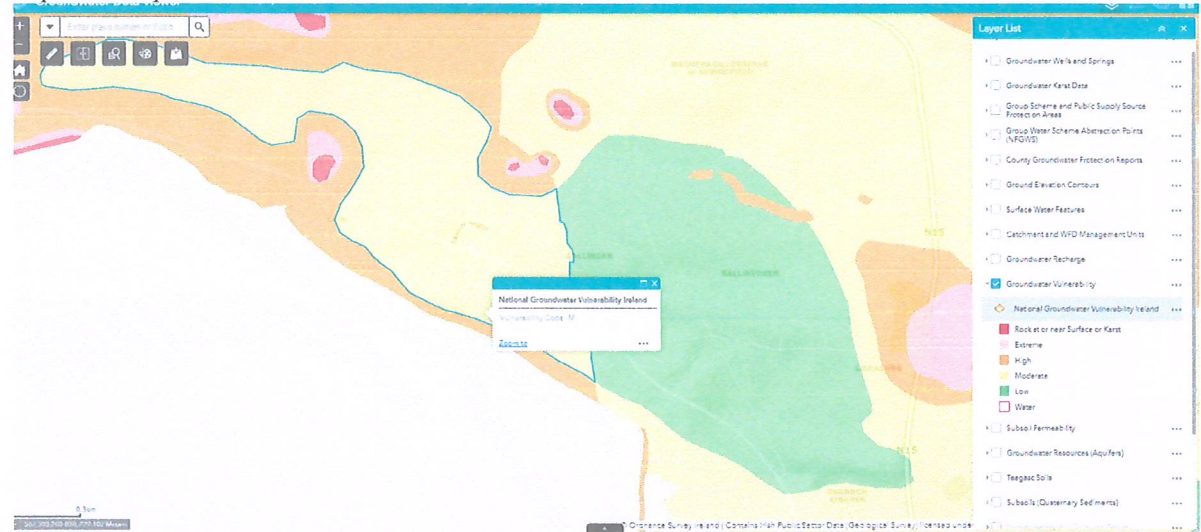


P test 3

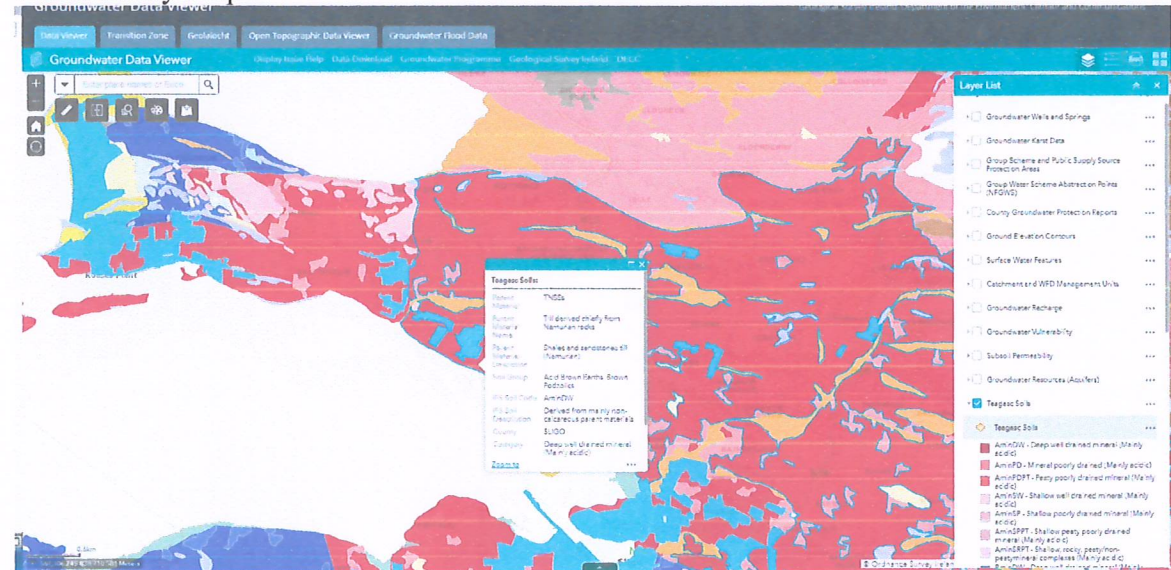


Overview of area tested

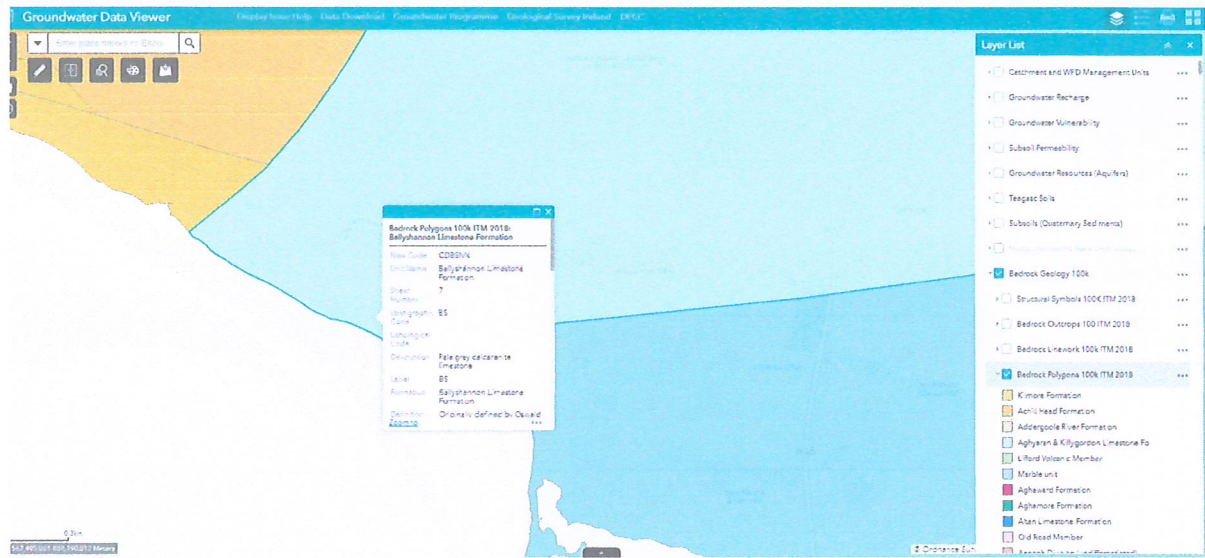
Aquifer map



Vulnerability Map



Soils map



Bedrock map

SITE CHARACTERISATION FORM

COMPLETING THE FORM

A. Hecker

Step 1:

Clear Form

Goto Menu Item **File, Save As** and save the file under a reference relating to the client or the planning application reference if available.

Use the **Clear Form** button to clear all information fields.

Notes:

All calculations in this form are automatic.

Where possible information is presented in the form of drop down selection lists to eliminate potential errors.

Variable elements are recorded by tick boxes. In all cases only one tick box should be activated.

All time record fields must be entered in twenty hour format as follows: HH:MM

All date formats are DD/MM/YYYY.

All other data fields are in text entry format.

This form can be printed out fully populated for submission with related documents and for your files. It can also be submitted by email.

Section 3.2

In this section use an underline _____ across all six columns to indicate the depth at which changes in classification / characteristics occur.

Section 3.4

Lists supporting documentation required.

Section 4

Select the treatment systems suitable for this site and the discharge route.

Section 5

Indicate the system type that it is proposed to install.

Section 6

Provide details, as required, on the proposed treatment system.

SITE CHARACTERISATION FORM

File Reference: Aidan & Margaret Glacken

1.0 GENERAL DETAILS (From planning application)

Prefix: First Name: Aidan Surname: Glacken

Address:

C/O HBK Architects, 134 Moore Street, Aughanacloy, Co. Tyrone

Site Location and Townland:

Ballincar, Sligo

Telephone No: Fax No:

E-Mail: N/A

Maximum no. of Residents: 6 No. of Double Bedrooms: 4 No. of Single Bedrooms: 0

Proposed Water Supply: Mains ☒ Private Well/Borehole ☐ Group Well/Borehole ☐

2.0 GENERAL DETAILS (From planning application)

Soil Type, (Specify Type): Tills derived chiefly from Namurian Rocks

Aquifer Category: Regionally Important ☒ Locally Important ☐ Poor ☐

Vulnerability: Extreme ☐ High ☐ Moderate ☒ Low ☐ High to Low ☐ Unknown ☐

Bedrock Type: Pale Grey Calcareous Limestone

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

Groundwater Protection Scheme (Y/N): Yes

Source Protection Area: SI ☐ SO ☐

Groundwater Protection Response: R1

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

Feature identified 310m to northeast of proposed site

Past experience in the area: Percolation test results good in this 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).

Groundwater is the potential target at risk
No potential site restrictions evident from desk study

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

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment

Landscape Position:

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

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

Houses:

Existing Land Use:

Vegetation Indicators:

Groundwater Flow Direction:

Ground Condition:

Site Boundaries: Roads:

Outcrops (Bedrock And/Or Subsoil):

Surface Water Ponding: Lakes:

Beaches/Shellfish: Areas/Wetlands:

Karst Features: Watercourse/Stream*:

Drainage Ditches*: Springs / Wells*:

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).

Site appears suitable

Groundwater and the sea are the potential targets at risk

The sea is located approximately 100m to the south of this site. The separation distance between the sea and the site exceeds the minimum separation requirement of 50m recommended by the EPA.

See covering report for further information

*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 P/T Test*	Soil/Subsoil Texture & Classification**	Plasticity and dilatancy***	Soil Structure	Density/ Compactness	Colour****	Preferential flowpaths
0.1 m	400mm SILT	2 Threads Ribbons 70mm Dilatant	Crumb	Uncompact	Brown	None visible
0.2 m						
0.3 m						
0.4 m						
0.5 m						
0.6 m						
0.7 m						
0.8 m	2.6m Gravelly SILT/CLAY with pebbles & cobbles	3 Threads Ribbons 90mm Dilatancy uncertain	Massive	Firm	Brown	None visible
0.9 m						
1.0 m						
1.1 m						
1.2 m						
1.3 m						
1.4 m						
1.5 m						
1.6 m						
1.7 m						
1.8 m						
1.9 m						
2.0 m						
2.1 m						
2.2 m						
2.3 m						
2.4 m						
2.5 m						
2.6 m						
2.7 m						
2.8 m						
2.9 m						
3.0 m						

Evaluation:

Ground conditions would indicate that a wastewater treatment system and polishing filter would adequately treat and dispose of the domestic wastewater generated by this development. However, we are proposing the installation of a proprietary wastewater treatment system, tertiary treatment system and distribution area because of concerns raised by the Department of Culture, heritage and the Gaeltacht on other sites locally. The use of this system provides a high standard of wastewater

Likely T value:

Note: *Depth of percolation test holes should be indicated on log above. (Enter P or T 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.

3.3(a) Percolation ("T") Test for Deep Subsoils and/or Water Table

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm) (A)	500	500	500
Depth from ground surface to base of hole (mm) (B)	900	900	900
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

Date and Time pre-soaking started	03/02/2021 11:30	03/02/2021 11:30	03/02/2021 11:30
-----------------------------------	------------------	------------------	------------------

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

Step 3: Measuring T_{100}

Percolation Test Hole No.	1	2	3
Date of test	04/02/2021	04/02/2021	04/02/2021
Time filled to 400 mm	10:40	10:40	10:40
Time water level at 300 mm	11:54	11:31	11:46
Time to drop 100 mm (T_{100})	74.00	51.00	66.00
Average T_{100}	63.67		

If $T_{100} > 300$ minutes then T-value > 90 – 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 $T_{100} \leq 210$ 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	11:54	13:10	76.00	11:31	12:24	53.00	11:46	12:54	68.00
2	13:11	14:30	79.00	12:25	13:20	55.00	12:55	14:05	70.00
3	14:31	15:53	82.00	13:21	14:18	57.00	14:06	15:19	73.00
Average Δt Value	79.00			55.00			70.33		
	Average $\Delta t/4 =$ [Hole No.1] 19.75 (t_1)			Average $\Delta t/4 =$ [Hole No.2] 13.75 (t_2)			Average $\Delta t/4 =$ [Hole No.3] 17.58 (t_3)		

Result of Test: $T = 17.03$ (min/25 mm)

Comments:

TEST PASS

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

Percolation Test Hole No.	1				2				3			
Fall of water in hole (mm)	Time Factor $= T_f$	Time of fall (mins) $= T_m$	$K_{16} = T_f / T_m$	T - Value $= 4.45 / K_{16}$	Time Factor $= T_f$	Time of fall (mins) $= T_m$	$K_{16} = T_f / T_m$	T - Value $= 4.45 / K_{16}$	Time Factor $= T_f$	Time of fall (mins) $= T_m$	$K_{16} = T_f / T_m$	T - Value $= 4.45 / K_{16}$
300 - 250	8.1				8.1				8.1			
250 - 200	9.7				9.7				9.7			
200 - 150	11.9				11.9				11.9			
150 - 100	14.1				14.1				14.1			
Average T- Value	T- Value Hole 1= (t_1) 0.00				T- Value Hole 1= (t_2) 0.00				T- Value Hole 1= (t_3) 0.00			

Result of Test: $T = 0.00$ (min/25 mm)

Comments:

3.3(b) Percolation ("P") Test for Shallow Soil / Subsoils and/or Water Table

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm)	0	0	0
Depth from ground surface to base of hole (mm)	400	400.00	400
Depth of hole (mm)	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

Date and Time pre-soaking started	03/02/2021	12:25	03/02/2021	12:25	03/02/2021	12:25
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Each hole should be pre-soaked twice before the test is carried out. Each hole should be empty before refilling.

Step 3: Measuring P_{100}

Percolation Test Hole No.	1	2	3
Date of test	04/02/2021	04/02/2021	04/02/2021
Time filled to 400 mm	10:50	10:50	10:50
Time water level at 300 mm	11:52	11:44	12:00
Time to drop 100 mm (P_{100})	62.00	54.00	70.00
Average P_{100}	62.00		

If $P_{100} > 300$ minutes then T-value > 90 – site unsuitable for discharge to ground

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

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

Step 4: Standard Method (where $P_{100} \leq 210$ minutes)

Percolation Test Hole	1			2			3		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δp (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δp (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δp (min)
1	11:52	12:56	64.00	11:44	12:40	56.00	12:00	13:12	72.00
2	12:57	14:03	66.00	12:41	13:39	58.00	13:13	14:28	75.00
3	14:04	15:13	69.00	13:40	14:40	60.00	14:29	15:47	78.00
Average Δp Value	66.33			58.00			75.00		
	Average $\Delta p/4 =$ [Hole No.1] 16.58 (p_1)			Average $\Delta p/4 =$ [Hole No.2] 14.50 (p_2)			Average $\Delta p/4 =$ [Hole No.3] 18.75 (p_3)		

Result of Test: $P =$ 16.61 (min/25 mm)

Comments:

TEST PASS

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

Percolation Test Hole No.	1				2				3			
Fall of water in hole (mm)	Time Factor $= T_i$	Time of fall (mins) $= T_m$	$K_{fs} = T_i / T_m$	P-Value $= 4.45 / K_{fs}$	Time Factor $= T_i$	Time of fall (mins) $= T_m$	$K_{fs} = T_i / T_m$	P-Value $= 4.45 / K_{fs}$	Time Factor $= T_i$	Time of fall (mins) $= T_m$	$K_{fs} = T_i / T_m$	P-Value $= 4.45 / K_{fs}$
300 - 250	8.1				8.1				8.1			
250 - 200	9.7				9.7				9.7			
200 - 150	11.9				11.9				11.9			
150 - 100	14.1				14.1				14.1			
Average P- Value	P- Value Hole 1= (p_1) 0.00				P- Value Hole 1= (p_2) 0.00				P- Value Hole 1= (p_3) 0.00			

Result of Test: $P =$ 0.00 (min/25 mm)

Comments:

3.4 The following associated Maps, Drawings and Photographs should be appended to this site characterisation form.

1. Discovery Series 1:50,000 Map indicating overall drainage, groundwater flow direction and housing density in the area.
2. Supporting maps for vulnerability, aquifer classification, soil, bedrock.
3. North point should always be included.
4. (a) Sketch of site showing measurements to Trial Hole location and
(b) Percolation Test Hole locations,
(c) wells and
(d) direction of groundwater flow (if known),
(e) proposed house (incl. distances from boundaries)
(f) adjacent houses,
(g) watercourses,
(h) significant sites
(i) and other relevant features.
5. Cross sectional drawing of the site and the proposed layout¹ should be submitted.
6. Photographs of the trial hole, test holes and site (date and time referenced).

¹ The calculated percolation area or polishing filter area should be set out accurately on the site layout drawing in accordance with the code of practice's requirements.

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.

Not Suitable for Development ☐

Suitable for ¹

1. Septic tank system (septic tank and percolation area)

No

2. Secondary Treatment System

a. septic tank and filter system constructed on-site and polishing filter; or

Yes

b. packaged wastewater treatment system and polishing filter

Yes

Discharge Route

Discharge to Ground Water

5.0 RECOMMENDATION

Propose to install:

WWTs + TERTIARY TREATMENT SYSTEM +

and discharge to:

Ground Water

DISTRIBUTION AREA.

Trench Invert level (m):

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

Recommendations:

We are recommending the use of a proprietary wastewater treatment system, tertiary treatment system and distribution area for the treatment and disposal of domestic effluent generated on this development.

We are recommending this system to address the suggestion that the cumulative effect of septic tanks/wastewater treatment systems in the area could have a negative effect on groundwater.

Please see attached report

¹ note: more than one option may be suitable for a site and this should be recorded

² 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 2.6.2.

6.0 TREATMENT SYSTEM DETAILS

SYSTEM TYPE: Septic Tank System

Tank Capacity (m ³)		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

Filter Systems

Media Type	Area (m ²)*	Depth of Filter	Invert Level
Sand/Soil			
Soil			
Constructed Wetland			
Other			

Package Treatment Systems

Type	
Mechanical Aeration System	
Capacity PE	6.00
Sizing of Primary Compartment	
	m ³

SYSTEM TYPE: Tertiary Treatment System

Polishing Filter: Surface Area (m ²)*	12.78	Package Treatment System: Capacity (pe)	6.00
or Gravity Fed:		Constructed Wetland: Surface Area (m ²)*	
No. of Trenches			
Length of Trenches (m)			
Invert Level (m)			

DISCHARGE ROUTE:

Groundwater	<input checked="" type="checkbox"/>	Hydraulic Loading Rate * (l/m ² .d)	
Surface Water **	<input type="checkbox"/>	Discharge Rate (m ³ /hr)	

TREATMENT STANDARDS:

Treatment System Performance Standard (mg/l)	BOD	SS	NH ₃	Total N	Total P
	10.00	10.00	10.00		

QUALITY ASSURANCE:

Installation & Commissioning

F Davitt Planning and Design,
Drumkeeran,
Co. Leitrim.
0719648886

On-going Maintenance

Manufacturer of the system

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

** Water Pollution Act discharge licence required

7.0 SITE ASSESSOR DETAILS

Company: F Davitt Planning & Design Engineers

Prefix: Mr. First Name: Francis Surname: Davitt

Address: Main Street,
Drumkeerin,
Co. Leitrim

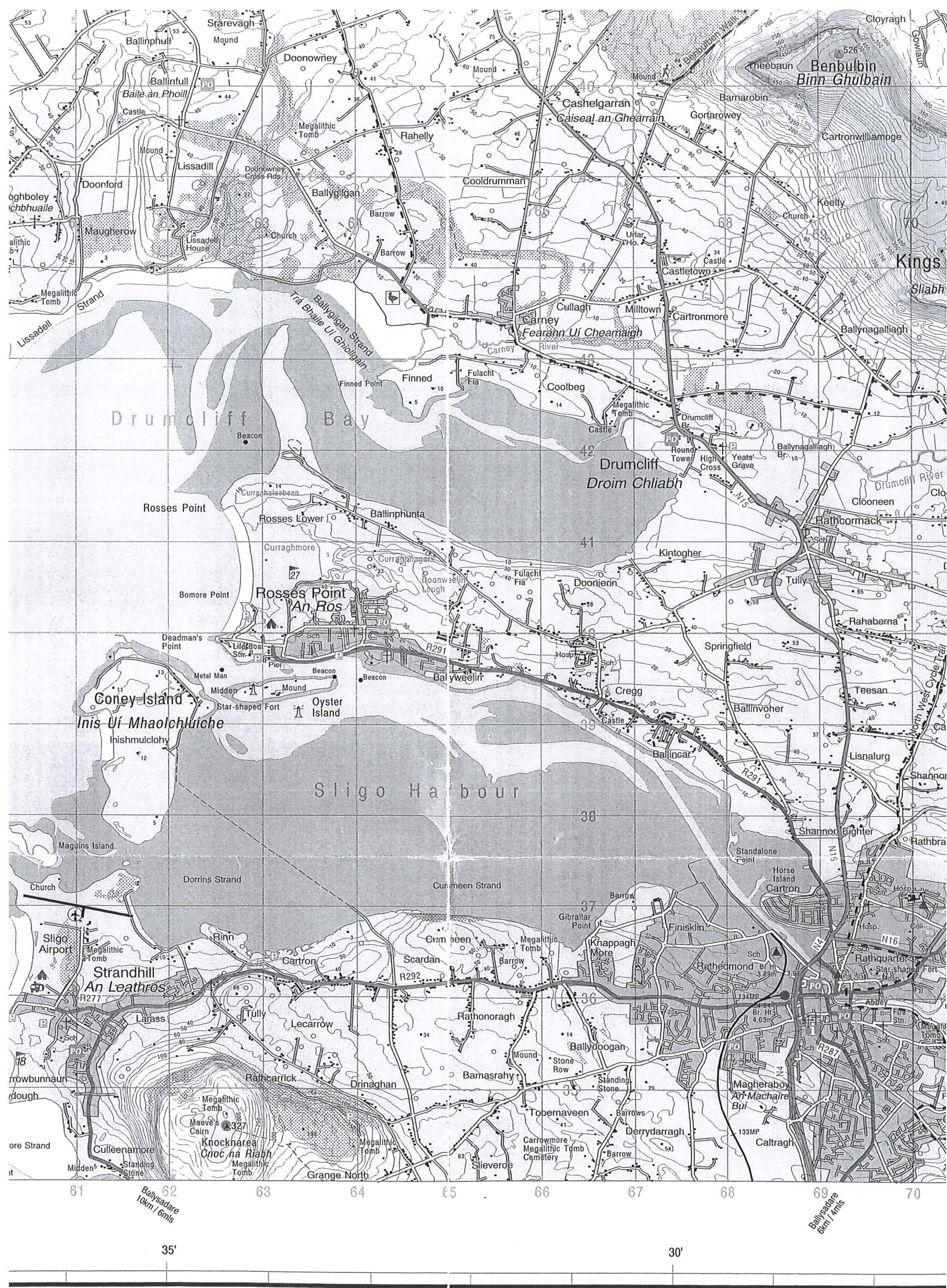
Qualifications/Experience: Chartered B Eng, B Surveyor, MSCSI, MIEI, MCABE

Date of Report: 17/02/2021

Phone: 071 96 48886 Fax: 071 96 4886 e-mail: info@davittplanningdesign.ie

Indemnity Insurance Number: ICN094A1C200

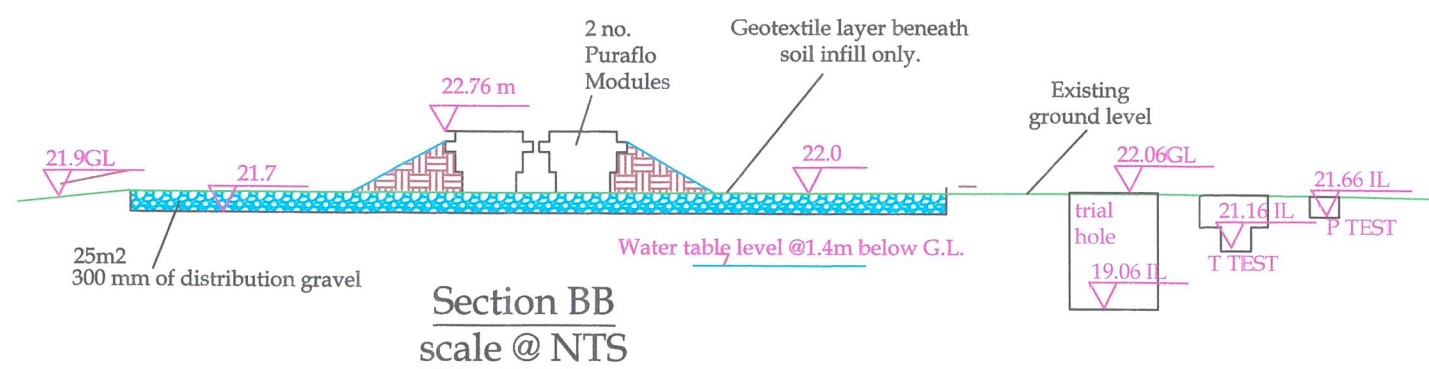
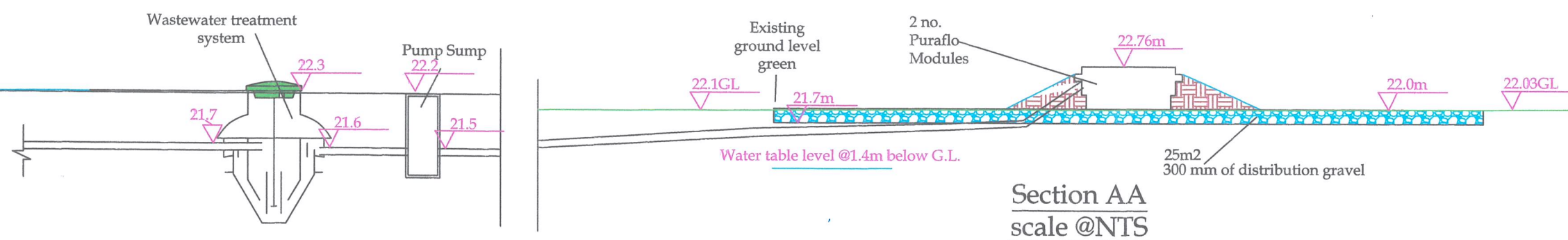
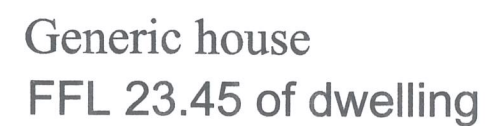
Signature: 





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Date	Drawn	Description
Feb 2021	PC	Site Layout
DAVITT PLAN & DESIGN ENGINEERS & ARCHITECTS		
Main Street Drumkeerin Co. Leitrim		
Ph/Fax: 071 66 48886 Mob: 087 906 7606 Email: info@davittplanningdesign.ie		
Aiden Glacken, Ballincarr, Sligo.		
Layout		
P Compn	Eng Check	F Davitt
P Compn	Coordination	
F Davitt	Approved	F Davitt
Scale: 1:500	Status	Rev



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Date	Drawn	Description	
Feb 2021	PC	Site Layout	
DAVITT PLAN & DESIGN ENGINEERS & ARCHITECTS			
Main Street Drumkeerin Co. Leitrim	Ph/Fax: 071 96 48886 Mob: 087 906 7606 Email: info@davittplanningdesign.ie		
Aiden Glacken, Ballincarr, Sligo.			
SECTIONS			
P Comm'n		Eng Check	P Davitt
P Comm'n		Coordination	
P Davitt		Approved	P Davitt
Scale, NTS		Status	Rev