



Services Report

*New single storey flat roof changing facility, parking area and ancillary works at
Ballyfermot United Sports and Social Club,
Cloverhill Road,
Clondalkin,
Dublin 22.*

October 2021

Kavanagh Ryan & Associates Limited.

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Introduction:

Ballyfermot United Sports and Social Club (BUSSC) made a planning application register reference SD21A/0181 register date 01/07/21 for a new single storey flat roof changing facility, parking area and ancillary works.

A request for additional information decision order number 1144 dated 25/08/21 was received and Kavanagh Ryan & Associates limited have been appointed to respond to conditions 5 & 6 of additional information request. Design and detail proposed and existing storm system and to submit a Pre-Connection enquiry to Irish water for the water supply and wastewater

Foul Water Management:

There is an existing foul 300mm diameter sewer in the road beside the site. The proposal is to connect into the existing manhole as indicated in our drawing 21108-1. A preconnection enquiry has been made to Irish water the letter from Irish water confirming feasibility of connection is attached to this report.

Loading assessment:

Table1: Discharge units from Table 10 CPDA drainage design – EN 12056-2.

Appliance	Quantity	Discharge Units	Sub-Total
Sinks	1	1.3	1.3
WHB's	5	0.3	1.5
WC's	5	1.8	9
Shower	10	0.4	4
		Total	16

The typical frequency factor used for this calculation is $K=0.5$ which is an intermittent use factor.

The wastewater flow rate from Table 12 CPDA drainage design = 2 litres/sec

The foul sewer line within the site as indicated in our drawing 21108-1 is a 150mm diameter pvc pipe with a minimum fall of 1/80. Diagram 6 of Section K (Building Regulations) gives a capacity just under 20 litres/sec. The proposed onsite drainage is therefore adequate.

Storm Water Management:

There is an existing 1620mm diameter Council Storm Sewer located in the south-eastern corner of the site as indicated in our drawing with a manhole. The invert level

of the sewer at this manhole is about 5.5m deep which is well below any intended pipework as part of the proposed works.

The proposal is to collect the rainwater from the roof of the new changing area and any additional runoff as part of the permeable paved areas and to attenuate this in a tank prior to discharging into this manhole.

The area of the site is approximately 2.3 Hectares. The allowable runoff is therefore 4.6 litres/sec (2 litres/sec/hectare).

The size of the tank required for attenuation is 26.4m³ and the size of the tank provided as indicated in our drawing 21108-1 is 34m³. There is therefore approximately 30% additional storage to allow for any future increase in storage.

The existing pitch currently drains within the site and is not included in these calculations however if required there is sufficient room within the site to increase the size of the attenuation tank.

There is no existing drainage within the site other than the council sewer as indicated in our drawings.

Water Demand Management:

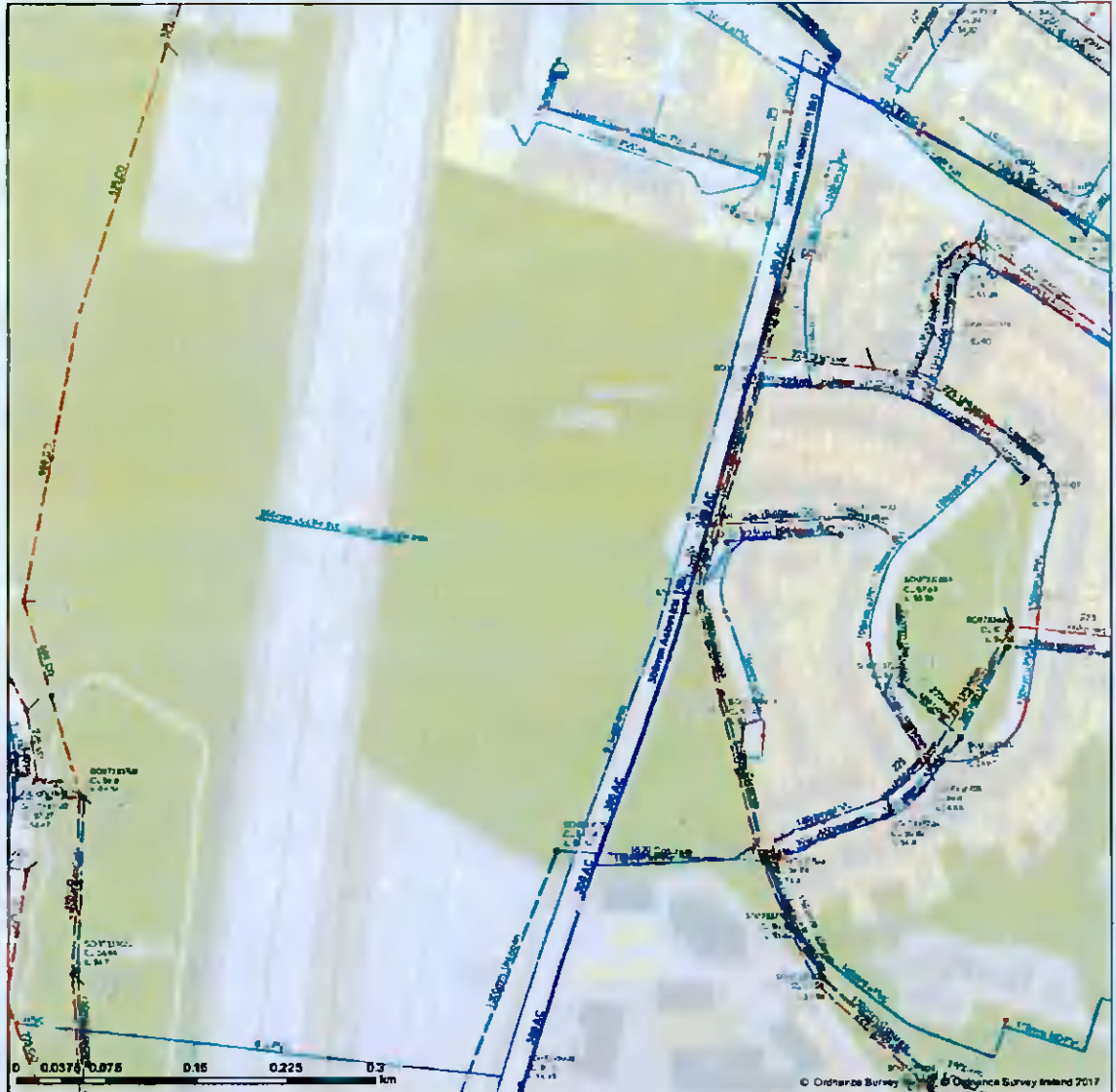
There is an existing well on the site which provides water for the existing temporary changing facility and the pitch.

The well is to be relocated as part of these works as indicated in our drawing 21108-1.

This information was issued to Irish water as part of the Preconnection enquiry.

Irish Water Map

Irish Water Web Map



Map Symbols

This map is a technical drawing of the water network. It is not a photograph and should not be used for navigation. The map is a technical drawing of the water network. It is not a photograph and should not be used for navigation. The map is a technical drawing of the water network. It is not a photograph and should not be used for navigation.

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UISCE
Irish Water

Print Date: 12/10/2021

Printed by Irish Water

Attenuation Calculation:

Runoff areas:

1. Changing Building Roof area	$300\text{m}^2 \times 1.0 =$	300m^2
2. Permeable Tarmac area	$1875\text{m}^2 \times 0.3 =$	563m^2
3. Permeable paving area	$350\text{m}^2 \times 0.5 =$	$\underline{175\text{m}^2}$
	Total =	1038m^2

100-year return period

Area of Paving	1038	sq.m
Allowable runoff	4.6	l/sec

Duration	Duration	Depth	Rate	Runoff Total	Runoff excess	Attenuation Volume
Mins	hours	mm	mm/hr	l/s	l/s	M ³
5	0.08	16.5	198.0	57.1	52.5	15.7
10	0.17	23.0	138.0	39.8	35.2	21.1
15	0.25	27.0	108.0	31.1	26.5	23.9
30	0.50	33.4	66.8	19.3	14.7	26.4
60	1.00	41.3	41.3	11.9	7.3	26.3
	2.00	51.0	25.5	7.4	2.8	19.8
	4.00	63.1	15.8	4.5	-0.1	-0.7
	6.00	71.4	11.9	3.4	-1.2	-25.2
	12.00	88.3	7.4	2.1	-2.5	-107.1
	24.00	109.2	4.6	1.3	-3.3	-284.1

Therefore, required attenuation for 100-year storm event

=

26.4 M³


Area of Attenuation tank provided as indicated in drawing 21108-1 is 34m³.

General Notes:

- 1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. **The availability of capacity may change at any date after this assessment.**
- 2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
- 3) The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
- 4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at <https://www.water.ie/connections/get-connected/>
- 5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.
- 6) Irish Water Connection Policy/ Charges can be found at <https://www.water.ie/connections/information/connection-charges/>
- 7) Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
- 8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
- 9) To access Irish Water Maps email datarequests@water.ie
- 10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

If you have any further questions, please contact Kevin McManmon from the design team at kmcmannmon@water.ie. For further information, visit www.water.ie/connections.

Yours sincerely,



Yvonne Harris
Head of Customer Operations

