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29 July 2021

Christophe Teevan  
Cairn Homes  
7 Grand Canal,  
Grand Canal Street Lower,  
Dublin 2  
D02KW81

**Detached House, Main Street, Newcastle  
Cairn Homes Properties Ltd**

Dear Christophe

In support of the planning submission to South Dublin County Council and as required for the above referenced site, we set out below DBFL's civil engineering element of the planning submission.

**Surface Water Drainage**

It is proposed to attenuate surface water within the curtilage of the proposed dwelling. A high-level overflow has been proposed to the public sewer for extreme events only (greater than 1% AEP).

Surface water collector pipes have been designed in accordance with Part H Building Regulations and the recommendations of the 'Greater Dublin Strategic Drainage Study' (GSDSDS).

In accordance with the GSDSDS and best practice it is proposed to use Sustainable Urban Drainage Systems (SUDS) for managing storm-water for the proposed house. The driveway is designed to incorporate permeable paving with a stone infiltration/attenuation layer below. Run-off from the permeable paving and adjacent roofs is allowed to infiltrate to the sub-soil and provide attenuation for the 100 year storm.

An overall storage volume of 18m<sup>3</sup> is provided which accommodates the volume produced in the 100 year 6 hour storm for the subject site.

**Foul Drainage**

It is proposed to connect the proposed house to the existing public foul sewer on Main Street via a 100mm foul sewer connection.

Foul sewer house drains and connections to the public sewer have been designed in accordance with Part H Building Regulations and the Irish Water Code of Practice for Wastewater.

DBFL Consulting Engineers Limited  
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Company No. 335828



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Water Supply

It is proposed to connect the proposed house to the 100mm diameter watermain on Main Street and install a boundary box in accordance with the Irish Water Code of Practice for Watermains.

Access

The house will be accessed from Main Street similar to the existing dwelling. Given the limited number of vehicular movements likely to result from the proposed house, the traffic impact is considered negligible and there are no undue road safety concerns associated with the access. 49m sightlines in accordance with DMURS are achieved each side of the proposed access as shown on drawing 210026-DBFL-RD-SP-DR-C-1250 and a dropped kerb will be provided from Main Street.

Flood Risk

The Eastern Catchment Flood Risk Assessment and Management (CFRAM) and Preliminary Flood Risk Assessment (PFRA) indicate that the subject site is located in Flood Zone C (Low Risk) and is therefore suitable for residential development. Refer to Appendix A for Flood maps.

We trust the above provides the relevant information in support of the overall planning submission. Should you require any further support information please do not hesitate to contact us.

Yours sincerely,

Noel Gorman

Noel Gorman
Associate
DBFL CONSULTING ENGINEERS

Enclosed
Drawings as Issue Sheet 210026-isu-001

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## APPENDIX A – FLOOD MAPS

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### Consultant

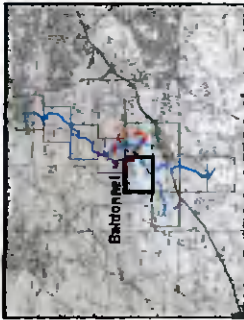
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**IMPORTANT USER NOTE**  
 THE VIEWER OF THIS MAP SHOULD REFER  
 TO THE DISCLAIMER, GUIDANCE NOTES  
 AND CONDITIONS OF USE THAT  
 ACCOMPANY THIS MAP

- Legend**
- 10% Fluvial AEP Event
  - 1% Fluvial AEP Event
  - 0.1% Fluvial AEP Event
  - Masthead Rear Contourline
  - AFA Extents
  - Node Point
  - Node Label

**FINAL**



**Map**

Baldonnell Fluvial Flood Extents

Map Type: EXTENT

Source: FLUVIAL

Map Area: HPW

Drawn By: C.C.

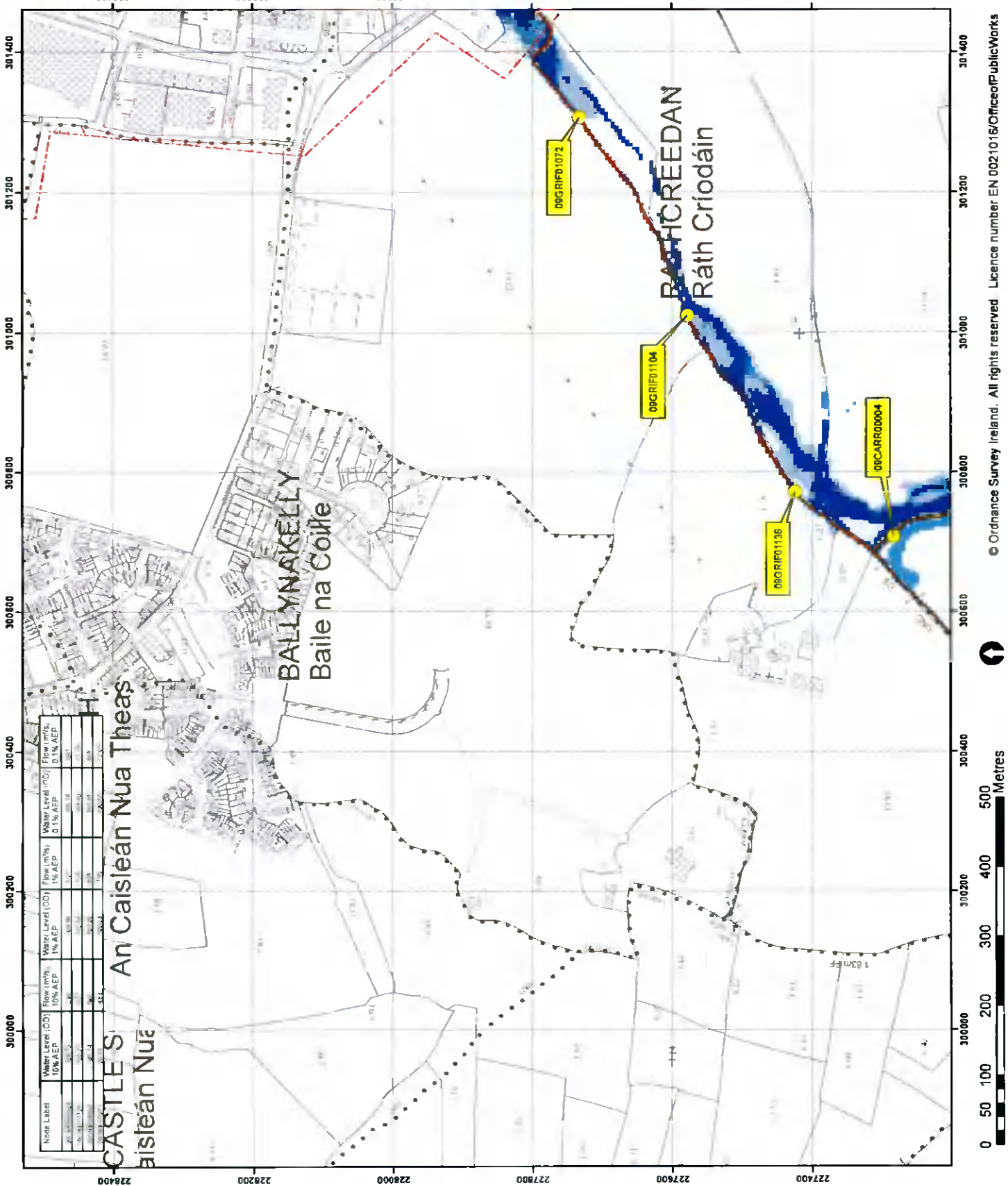
Checked By: D.J.

Approved By: G.D.

Drawing No: E09BAL\_EXFCD\_F0\_05

Map Series: Page 5 of 12

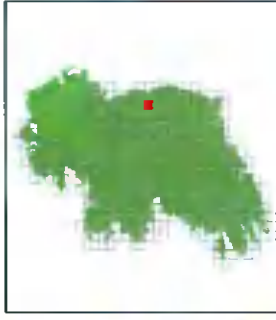
Drawing Scale: 1:6,000 @ A3



Node Label	Water Level (OD) 10% AEP	Flow (m <sup>3</sup> /s) 10% AEP	Water Level (OD) 1% AEP	Flow (m <sup>3</sup> /s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m <sup>3</sup> /s) 0.1% AEP
09GRIFD1072	10.0	10.0	10.0	10.0	10.0	10.0
09GRIFD1104	10.0	10.0	10.0	10.0	10.0	10.0
09GRIFD1136	10.0	10.0	10.0	10.0	10.0	10.0
09CARRD0004	10.0	10.0	10.0	10.0	10.0	10.0



**Location Plan :**



**Legend:**

**Flood Extents**

- Fluvial - Indicative 1% AEP (100-yr) Event
- Fluvial - Extreme Event

- Coastal - Indicative 0.5% AEP (200-yr) Event
- Coastal - Extreme Event

- Pluvial - Indicative 1% AEP (100-yr) Event
- Pluvial - Extreme Event

- Groundwater Flood Extents

- Lakes / Turfoughs

**PFRA Outcomes**

- ✱ Probable Area for Further Assessment
- ✱ Possible Area for Further Assessment

**Important User Note**

The flood extents shown on these maps are based on broad-scale information and are not intended to be used for detailed design or construction purposes. The location information on the purpose, development and locations of these maps is available in the relevant reports (see www.dfram.ie). Users should seek professional advice if they intend to rely on the maps in any way.

If you believe that the maps are inaccurate in some way please forward full details by contacting the OPW (refer to PFRA info on the leaflet or 'Have Your Say' on www.dfram.ie).

Office of Public Works  
Jonathan Swift Street  
Trim  
Co. Meath  
Ireland



Project: PRELIMINARY FLOOD RISK ASSESSMENT (PFRA)

Map: PFRA Indicative extents and outcomes  
- Draft for Consultation

Figure No: FWA

Created By: MA

Date: July 2011

Date: July 2011

Revision: 0

Figure No: 2019 / MAP / 237 / A

Drawing Scale: 1:50,000

File Scale: 1:1 @ A3

