



## Technical Note 162074-TN-002

<b>Project:</b>	Site at Capdoo Clane	<b>Prepared by:</b>	Emma Daly / Brendan Keogh
<b>Title:</b>	Response to ABP Opinion	<b>Date:</b>	16/04/2019
<b>Client:</b>	Ardstone	<b>Job No:</b>	162074

### 1. INTRODUCTION

Following on from the Pre-Application Consultation Meeting for the above development (Ref ABP-302840-18), An Bord Pleanala's Direction noted that further consideration is required in relation to Infrastructural Constraints and Surface Water Management / Flood Risk Assessment. This technical note has been compiled to a response to these issues.

### 2. INFRASTRUCTURAL CONSTRAINTS

An Bord Pleanala have noted "*infrastructure constraints in the network serving the proposed development in particular as it relates to Contract 2B of the Upper Liffey Valley Sewerage Scheme*".

#### Irish Water Pre-Connection Feedback

DBFL have engaged with Irish Water via the pre-connection enquiry process (refer to Irish Water's Pre-Connection Enquiry Response dated 24<sup>th</sup> September 2018, included in Appendix A of this note).

Irish Water have advised that "based upon the details you have provided with your pre-connection enquiry and on the capacity currently available as assessed by Irish Water, we wish to advise you that, subject to a valid connection agreement being put in place and the conditions listed below, your proposed connection to the Irish Water network can be facilitated".

A condition is listed in relation to Contract 2B of the Upper Liffey Valley Sewerage Scheme i.e. it is feasible for 205 units to connect prior to the Upper Liffey Valley Sewerage Scheme (Contract 2B) and associated upgrades in Clane being completed in 2021, thereafter the balance of units may be accommodated.

Completion of Contract 2B will alleviate issues identified by KCC Water Services at the Central Park development and at Abbeylands, Clane and Sallins pump stations (and associated rising mains).

### Compulsory Purchase Order Process

At the Pre-Application Consultation Meeting it was noted that KCC Water Services are not aware of any objections or challenges to the CPO process associated with Contract 2B of the Upper Liffey Valley Sewerage Scheme (unlike the Ardstone's recent application at Kilbelin, Newbridge where Contract 2A's CPO was subject to objection).

### Timeline & Programme

An indicative timeline for occupation of the proposed development is outlined below:

- 2020 – 100 houses
- 2021 – 100 houses
- 2022 – 100 houses
- 2023 – 66 houses

This timeline aligns with Irish Water's advice that it is feasible for 205 connections prior to delivery of Contract 2B of the Upper Liffey Valley Sewerage Scheme (completed by 2021) with the balance of units being connected thereafter.

In summary, Irish Water's advice indicates Contract 2B will be delivered within the lifetime of a grant of planning permission for the proposed development. As such we consider that the proposed development is not premature.

### Foul Drainage Strategy

- Existing 225mm diameter public foul sewers are located south east and north west of the site.
- The majority of the foul drainage will connect to an existing foul sewer south east of the site with a small isolated section connecting north west of the site.
- The proposed foul drainage discharge point south east of the site is slightly elevated above the north-eastern corner of the site. As such, a foul pumping station, rising main and associated rising main discharge manhole will be required to service this section of the development (185 out of 366 units located in the north east of the site).
- The north western and southern portions of the site will discharge by gravity in to the appropriate manholes.
- The proposed foul pumping station is to be located along the eastern side of the proposed development and is located in accordance with the required setbacks from proposed dwellings as required by the Irish Water code of Practice for Wastewater Infrastructure.

### 3. SURFACE WATER MANAGEMENT AND FLOOD RISK ASSESSMENT

#### Surface Water Management

The surface water management strategy for the proposed development is outlined in Section 3 of DBFL's Infrastructure Design Report. The site's surface water management infrastructure has been designed in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS). The following methodologies are being implemented as part of a SuDS treatment train approach:

- Permeable paving in driveway / in curtilage areas
- Surface water runoff from roofs will be routed to the proposed surface water pipe network via the stone reservoir beneath permeable paved driveways.
- Attenuation of the 30 and 100 year return period storms within Stormtech Attenuation Chambers.
- Installation of a vortex flow control device to limit surface water discharge from the site to 2.0 l/sec/ha
- Surface water discharge will also pass via a Class 1 full retention fuel / oil separator.

We also note that the Capdoo Link Road (which traverses the site) is to be provided with a separate and independent surface water drainage network with its own discharge outfalls (entirely separate from the proposed development).

#### Flood Risk Assessment

A site specific flood risk assessment has been prepared by DBFL (reference DBFL Report 162074-REP-003). The report assess the site in accordance the requirements of "The Planning System and Flood Risk Management, Guidelines for Planning Authorities" and its Technical Appendices (Office of Public Works, November 2009).

The site is considered to be located in Flood Zone C as defined by the requirements of OPW guidelines and as such the proposed development ("dwelling houses") is considered appropriate.

- Impact on Adjacent Areas  
Storms greater than the 1% AEP (exceeding the design capacity of the site's drainage system) may result in overland flow being directed towards open space areas, rural roads located to the north and east of the site and the proposed Capdoo Link Road. As such, adjacent areas will not be impacted by the development up to the 1% AEP flood event.
- Residual Risk  
Residual risks include pluvial flooding from the private drainage system related to pipe blockage, flood exceedance or mechanical failure and from storms in excess of the 1% AEP storm event.  
Proposed mitigation measures to address residual flood risks include maintenance of the proposed drainage system on a regular basis to reduce the risk of a blockage. In the event of storms exceeding the 1% AEP design capacity of the attenuation system, possible overland flow routing towards open space areas should not to be blocked.

- Emergency Vehicle Access

Access and egress to the site is provided primarily by way of the proposed Capdoo Link Road which will transverse the site. The Capdoo Link Road is located in Flood Zone C as defined by the OPW guidelines therefore, it is expected that the site can be safely accessed during storm events up to 1% AEP event.

## **APPENDIX A**

IRISH WATER PRE-CONNECTION ENQUIRY RESPONSE (SEPTEMBER 2018)

Letter Ref: CDSCOF6

Mr Brendan Keogh,  
Associate  
DBFL Consulting Engineers,  
Ormond House,  
Upper Ormond Quay,  
Dublin 7

**Uisce Éireann**  
Bosca OP 860  
Oifig Sheachadta  
na Cathrach Theas  
Cathair Chorcaí

**Irish Water**  
PO Box 860  
South City  
Delivery Office  
Cork City

[www.water.ie](http://www.water.ie)

24<sup>th</sup> September 2018

Dear Sir/Madam,

**Re: CUSTO16467 pre-connection enquiry – Subject to contract |  
Contract denied 323 Residential Units at Capdoo, Clane, Co. Kildare**

Irish Water has reviewed your pre-connection enquiry in relation to water and wastewater connections at Capdoo (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on the capacity **currently available as assessed** by Irish Water, we wish to advise you that, subject to a valid connection agreement being put in place and the conditions listed below, your proposed connection to the Irish Water network can be facilitated.

### **Strategic Housing Development**

Irish Water notes that the scale of this development dictates that it is subject to the Strategic Housing Development planning process. Therefore:

- A. In advance of submitting your full application to An Bord Pleanála for assessment, you must have reviewed this development with Irish Water and received a Statement of Design Acceptance in relation to the layout of water and wastewater services.
- B. You are advised that this correspondence does not constitute an offer in whole or in part to provide a connection to any Irish Water infrastructure and is provided subject to a connection agreement being signed and appropriate connection fee paid at a later date.

### **Wastewater**

It is feasible for 205 units to connect prior to the Upper Liffey Valley Sewerage Scheme (Contract 2B) and associated upgrades in Clane being completed in 2021 (programme subject to statutory process and change). Thereafter, the balance of units up to 118 units may be accommodated.

A connection agreement can be applied for by completing the connection application form available at **[www.water.ie/connections](http://www.water.ie/connections)**. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Energy Regulation.

Should you wish to have any of the above progressed by Irish Water or if you have any further questions, please contact **1850 278 278 8.00am-4.30pm, Mon-Fri** or email **[newconnections@water.ie](mailto:newconnections@water.ie)**. For further information, visit **[www.water.ie/connections](http://www.water.ie/connections)**

Yours sincerely,

**Maria O'Dwyer**

**Connections and Developer Services**