

Land Use Planning & Transportation,
South Dublin County Council,
County Hall,
Tallaght,
Dublin 24.

LAND USE, PLANNING
& TRANSPORTATION DEPT.
- 6 OCT 2023

6th October 2023
JSA Ref. 20181T2/RK

Dear Sir / Madam,

RE: CLARIFICATION OF FURTHER INFORMATION RESPONSE IN RESEPECT OF FOR THE CONSTRUCTION OF MIXED-USE DEVELOPMENT COMPRISING 607 NO. APARTMENTS, OFFICE FLOORSPACE, 4 NO. RETAIL UNITS, A CRECHE AND URBAN SQUARE IN THE CLONBURRIS DEVELOPMENT AREAS CUC-S3 & CSW-S3 OF THE CLONBURRIS SDZ PLANNING SCHEME 2019.

South Dublin County Council Planning Reg. Ref. SDZ22A0018

On behalf of the applicant, Cairn Homes Properties Ltd., we wish to respond to the request for clarification of further information issued by the Planning Authority on the 18th of September 2023 in relation to a proposed mixed use residential development at Tile 2, Clonburris, Dublin 22.

It is noted that a meeting was held between DBFL, the Water Services Department and the Public Realm Department on the 27th of September where the details were discussed and agreed in principle.

ITEM NO. 1 – ATTENUATION DETAILS

Item no. 1 states:

“1.1 South Dublin County Council calculations would indicate that the attenuation provided for catchment is undersized (at 1382m³), in the region of 40%.

1.2 The DBFL document addressing request for information, Item 10(a) states ‘the proposed attenuation pond provides a storage volume of 2300m³ with a maximum water level of 59.000m AOD. However, the top of water level for the attenuation pond is 58.366m for the 1:100 year storm event, requiring a storage volume of 1382m³.’ The applicant is requested to provide a drawing to clarify what the maximum depth of the pond will be, along with the maximum storage.

1.3 The applicant is requested to submit a revised report to show surface water attenuation calculations for proposed development. The applicant is requested to submit the area in m² of hard standing, buildings, roads, green roofs if any, permeable paving, grass and their respective run off coefficients. The applicant is requested to clarify what attenuation is provided in m³ and what is required in m³ for proposed development. The applicant is requested to clarify what areas are residential that can be attenuated in the general Clonburris Attenuation plan and what areas are schools, and commercial areas that require on site attenuation. Show how surface water attenuation relates to Surface Water Management Plan for Clonburris 2020. Attenuation should be by means of SuDS.

1.4 The maximum allowable outflow calculations (Appendix B, Infrastructure Design Report) for catchment 1 have used the total area of the site (4.3ha), instead of the area of catchment 1 (3.1ha). Catchment 2 flows directly to a further attenuation area downstream. Catchment 1 maximum allowable outflow should be 9.6 l/s. This will have a direct affect on the flow control values for the attenuation pond.

Provide a report to clarify surface water calculations, and revised drawings accordingly.

1.5 It is not clear how surface water is getting to tree pits given the proximity of gullies to tree pits. Gullies should not intercept surface before tree pits. 1.6 Prior to submission of revised drawings contact Water Services and Public Realm to discuss surface water system and SuDS.

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RESPONSE TO ITEM NO. 1.1 – ATTENUATION CALCULATIONS

We refer the Planning Authority to the enclosed DBFL Response document which details that attenuation calculations have been carried out in accordance with best practice guidance and design criteria and the agreed Clonburris Surface Water Masterplan as described within the Infrastructure Design Report. Nonetheless, as highlighted in the previous Further Information submission, it is proposed to provide a greater attenuation volume than the volume required from calculations as this can be easily accommodated within the SuDS feature design. Total attenuation storage proposed significantly exceeds minimum volume identified from calculations and accommodates the 40% uplift mentioned.

RESPONSE TO ITEM NO. 1.2 – ATTENUATION CLARIFICATION

In response to item no. 1.2, revised attenuation calculations have been carried out. This includes recalculation of the available total basin volume on a more conservative basis. Notes on drawings CLB-1B-94-SW-DTM-DR-DBFL-CE-5005 Typical Attenuation Area Details & CLB-1B-94-SW-DTM-DR-DBFL-CE-1001 Drainage Layout have been updated to reflect updated calculations.

Updated Drawing CLB-1B-94-SW-DTM-DR-DBFL-CE-5005 includes a plan and section drawing of the attenuation feature complete with all water levels. A schematic extract is presented below in Figure 1 As described in response to Item 1.1, Proposed Storage volume significantly exceeds minimum calculated volume. Updated Drainage calculations (see Appendix A) have calculated a minimum required storage volume of 1478m³ would be required which would correspond to a water level of 58.683. The storage actually proposed is 2180m³ with a design TWL of 59.0m.

RESPONSE TO ITEM NO. 1.3 – SURFACE WATER CALCULATIONS

In response to this item, please refer to drawing CLB-1B-94-SW-DTM-DR-DBFL-CE-1002 as issued for Planning, which shows the area of hard standing, buildings, roads, green roofs, permeable paving, grass and their respective run off coefficients. This is unchanged since previous submissions. As per responses set out in the DBFL response document, the total attenuation provided is 2,180m³ and the total volume required from calculations is 1,478m³. Please refer also to Appendix A and updated drawings, prepared by DBFL, provided with this CFI response.

The proposed drainage strategy is fully aligned with Surface Water Management Plan for Clonburris. As set out in the masterplan, only areas identified as Urban Cores or Education sites require onsite attenuation, all other areas can drain directly to the regional attenuation. As required by the SWMP Catchment plan, the urban centre (CUC3) portion of the site is attenuated locally within the development. The proposed catchment area for the urban core is indicated as Catchment 1 on drawing CLB-1B-94-SW-DTM-DR-DBFL-CE-1002.

All attenuation for Catchment 1 of the proposed development is within the open attenuation pond, which is considered a high quality SuDS feature providing all four pillars of SuDS. It provides Amenity and Biodiversity value in addition to managing water Quality and Quantity. In addition SuDS tree pits are provided throughout the site.

RESPONSE TO ITEM NO. 1.4 – CATCHMENT CALCULATIONS

In response to this item, as set out in the DBFL CFI Response document, the surface water network calculations have been revised as suggested, using a 3.1ha area for Catchment 1 and a pre-development flow rate of 3.1l/s/ha as per the Clonburris SWMP. This equates to a 9.6l/s controlled outflow rate as used in the revised surface water network calculations attached as Appendix A of the DBFL response document.

RESPONSE TO ITEM NO. 1.5 – TREE PIT DETAILS

In response to this item, the general drainage layout and gully locations for the proposed development have been revised as per the enclosed drawing CLB-1B-94-SW-DTM-DR-DBFL-CE-1001. Several gullies have now been removed in order to maximise the surface water runoff from the roads which is to be diverted to tree pits and other SuDS features.

The tree pit details have also been revised to better align with the recently issued "*Sustainable Drainage Explanatory Design & Evaluation Guide 2022*". See enclosed drawing CLB-1B-94-SWDTM-DR-DBFL-CE-5003 for the revised tree pit details. Note the significant amount of "Type 2" tree pits on the enclosed drainage layout, which allows surface water runoff from the roads to discharge directly to tree pit/bioretention surface and infiltrate. It is also noted that in Type 1 tree pits gullies do intercept water initially however they direct discharge to tree pit structure for infiltration and plant uptake with only a high level overflow to the surface water network. Refer to details provided on drawing CLB-1B-94-SW-DTM-DR-DBFL-CE-5003.

While drainage to tree pits has been prioritised is noted that there are extremely low infiltration rates on site and certain low points that are not adjacent to SuDS features so a suitable overflow gully provision will inevitably be required.

RESPONSE TO ITEM NO. 1.6 – SDCC CONSULTATION

DBFL held a meeting on 27/09/2023 in SDCC offices with Brian Harkin (Water Services Dept) and Laurence Colleran (Parks Dept) to discuss the Clarification of Further Information items in this response.

ITEM NO. 2 – DRAINAGE DESIGN AND TREE PIT DETAIL

Item no. 2 states:

“The drainage design does not appear to allow for the infiltration of surface water through the SuDs measures included, before hard engineering drainage solutions such as gullies intercept, which makes the SuDs features non-operational, undermines sustainable drainage of the site and makes the SuDs features utilised somewhat obsolete. Tree pits are required to attenuate water, treat the water, provide amenity value and provide habitats to improve biodiversity. The required tree pits are present but the system only functions when water is directed into the tree pits. The positioning of gullies close to tree pits is diverting water away from the tree pits and into a conventional piped system contrary to SDCC policies on Sustainable drainage. A thorough review of the surface water drainage design is required. The applicant is requested demonstrate that drainage on site utilises sustainable drainage techniques and avoids underground pipes. Please contact Public Realm and Water and Drainage prior to submission of this clarification.”

RESPONSE TO ITEM NO. 2

Please refer to response to item no. 1.5 above and in the DBFL Response document.

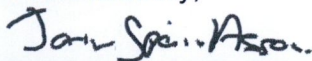
Enclosures

Please find the following documents (6 no. copies) enclosed in support of this submission:

JSA Cover Letter
DBFL Response Doc
DBFL Drawings

This response to the request for further information has carefully considered the items raised by South Dublin County Council and respectfully request that a grant of permission is issued as the proposal is considered to be in accordance with the proper planning and sustainable development of the area.

Yours faithfully,



John Spain Associates