

## TECHNICAL NOTE

15<sup>th</sup> November 2023

To Brenda Butterly, McGill Planning

**Regarding** CAIRN Citywest - LRD amendment application which will consist of changes to the provision of plant to the rear of Unit A in Block E1 of the Strategic Housing Development permitted under ABP-310570-21 and as amended by LRD23A/0007. The proposed amendment is for a change of use from the permitted commercial/ retail use to a dentist in Unit A along with a new small plant located to the rear.

Dear Brenda,

Regarding the above LRD amendment application and the installation of a single external heat pump at Unit A, Block E1, it is noted that the heat pump shall be located external to the building at ground level within a louvred enclosure.

### Noise

I have reviewed the technical specifications for the proposed heat pump unit which state a maximum operational sound pressure level (SPL) of 62 dB(A). The louvred enclosure will provide a minimum of -5dB(A) sound reduction resulting in an SPL of 57 dB(A).

If the Inverse Square Law  $SPL_2 = SPL_1 - 20 \log (R_2/R_1)$  is applied to calculate the attenuation of the sound as a function of distance between the source (heat pump 57 dB(A) SPL1) and the closest residential receiver (c.5m) the resultant SPL2 at the closest residential unit will be 43dB(A).

Provided that the unit is maintained and no tonal or impulsive noise is generated by its operation, the operational noise will be lower than the applied daytime and nighttime noise limit values of 55dB(A) and 45dB(A) respectively.

### Air Quality & Climate

The operation of the plant will have no material effect on air quality or climate.

### Waste Management

The operation of the plant will have no material effect on waste management

I trust this is of assistance.

Regards,



Ian Byrne MSc MIOA, MSc Environmental & Planning Law