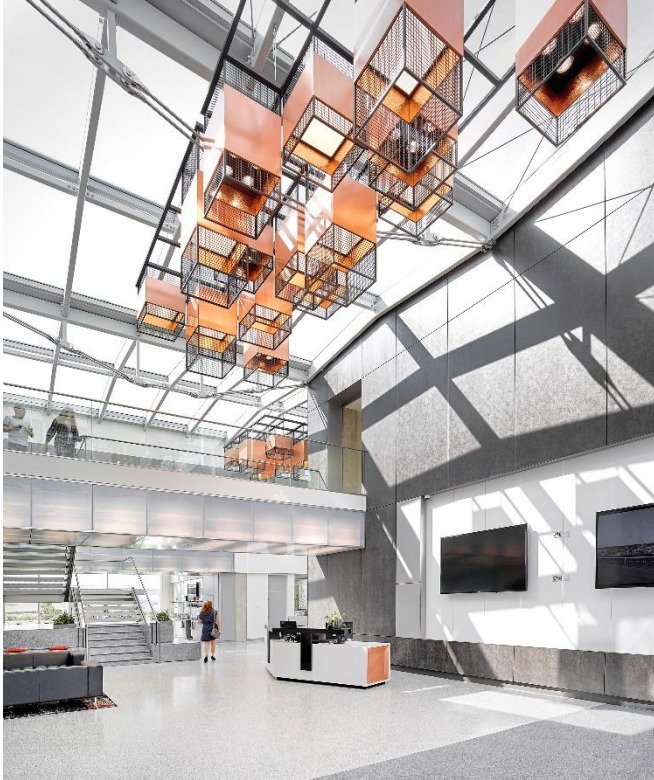


Cascades Leisure Centre

Ventilation Statement



Issue No. 02

Date: 28th November 2022

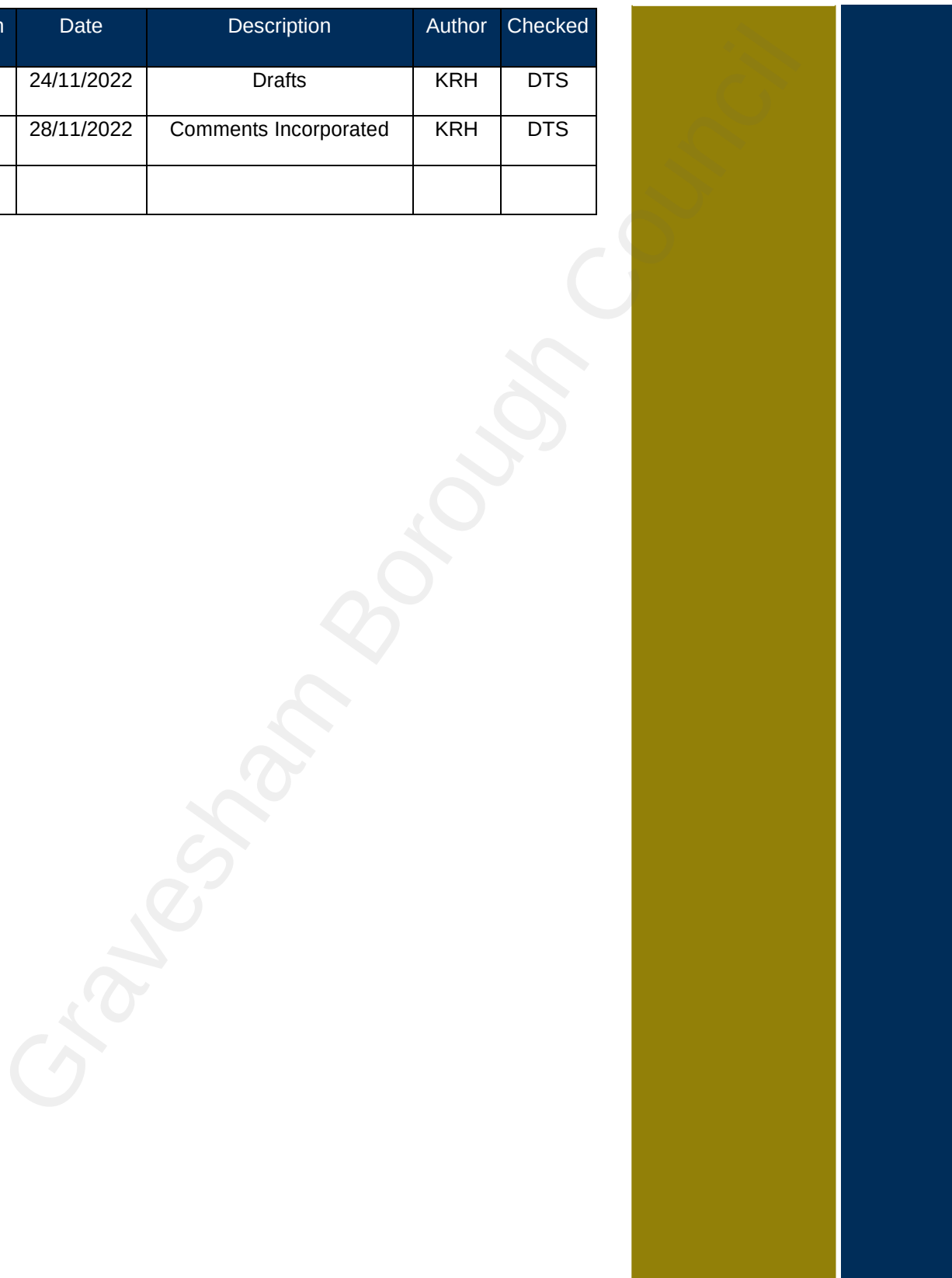
Ref: 2312-50-RPT-02

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Revision	Date	Description	Author	Checked
01	24/11/2022	Drafts	KRH	DTS
02	28/11/2022	Comments Incorporated	KRH	DTS





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1.0 INTRODUCTION

The following report provides a technical statement on the proposed ventilation for the subsequent planning submission for the development of Cascades Leisure Centre located in Gravesend in the south of England. The report identifies the proposals for the scheme and how to minimise the impact on the local greenbelt area where the site is to be located.



The building shown in the background of image above is the existing leisure centre, which was constructed in the 1960s & 70s. The proposal is for the existing building to be demolished & a new leisure centre to be built on the same site close-by, bringing the building & services up to modern efficiency standards. The new building is proposed to be built approximately where the existing carpark & treeline are in the foreground of the above image.

2.0 PROPOSALS

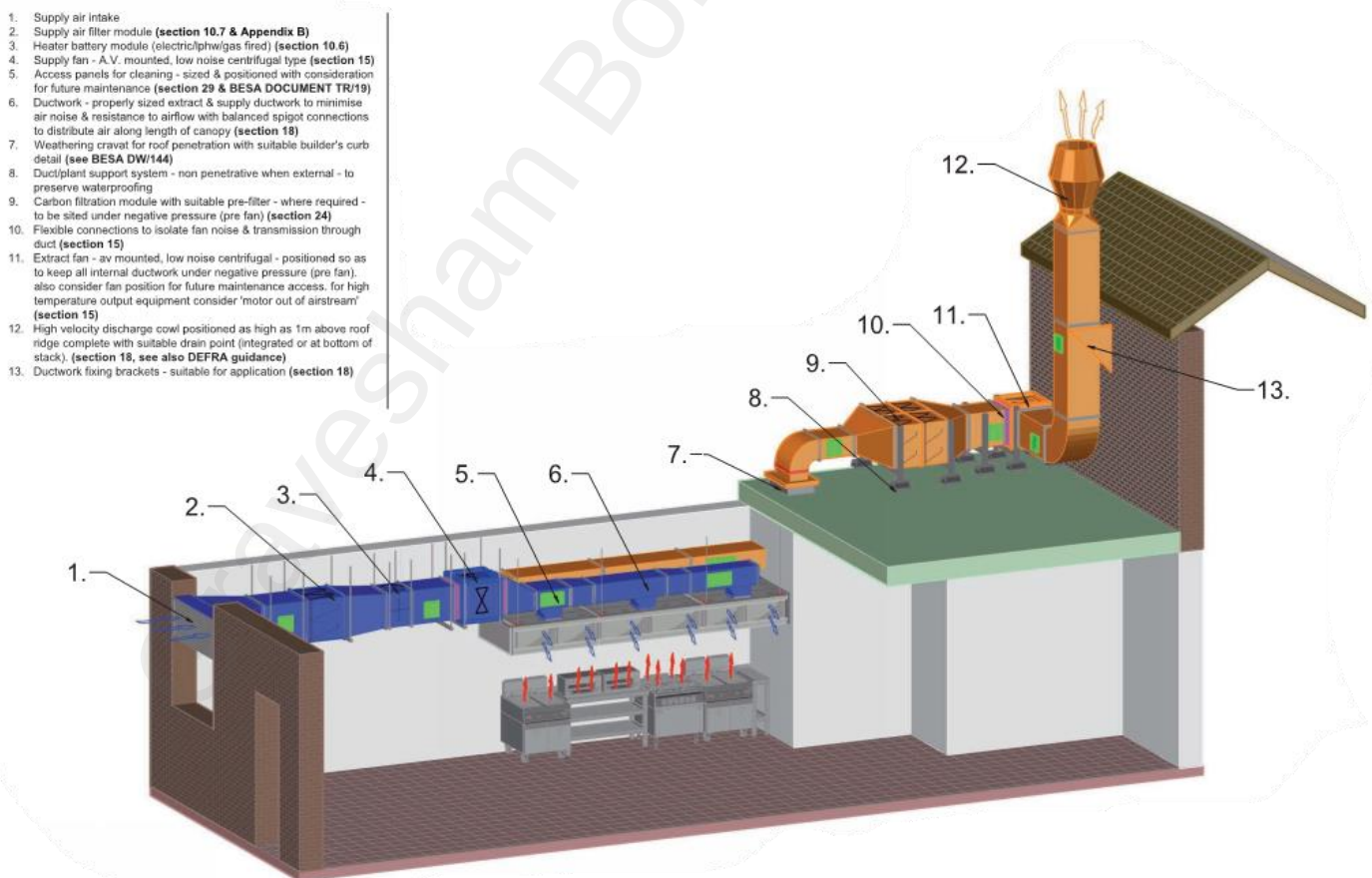
2.1 KITCHEN VENTILATION

We've made an allowance for the kitchen area to be provided with 40 air changes of supply & extract air, typical for a commercial kitchen application. Once the actual configuration and specific components of the kitchen are defined, the ventilation flow rate will be checked against the 'Thermal Convection' method of establishing ventilation rates, as defined 'BESA Kitchen Ventilation Systems DW/172'

The whole of the kitchen ventilation system will be designed in full accordance with DW172, including ventilation rates, ductwork design and extract discharge, which will discharge a minimum of 1m above the roof and away from windows or other openings into the building. This shall allow enough time for the extract air to be diluted by the external air to avoid any nuisance.

odours affecting the area.

The drawing below illustrates a typical best practice kitchen ventilation system taken from DW/172.



2.2 POOL HALL VENTILATION

The pool hall shall be provided with its own dedicated air handling plant and provided with high levels of fresh air ventilation to ensure humidity levels within the space are maintained at suitable levels to control condensation, hence maximising the lifespan of the structure.

The pool hall ventilation system will be a full fresh air system, with no air recirculation and will be designed in accordance with all best practice guides.

2.3 GENERAL VENTILATION

All remaining areas will be provided with ventilation in compliance with Approved Document F, generally 10 litres of fresh air per person. Some areas of the building such as gyms will be provided with fresh air at a higher rate than this, to make allowance for the increased metabolic rate in these areas.

All dirty and wet areas, such as toilets and shower areas will be provided with extract ventilation and held under negative pressure, relative to their surrounding spaces.