



ST. ANDREWS PARK

UXBRIDGE DICE DEVELOPMENT

DISCHARGE OF PLANNING CONDITION NO 54

DESIGN NOTE NO.1

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I N D E X

1.0	Introduction
2.0	The Condition
3.0	Employers Requirements
4.0	Ventilation Strategy
Appendix A	DRHSS1040-DICE-V100

1.0 **Introduction**

The purpose of this design note is to provide details of our proposals to combat Air Pollution. Although this will be a contractor's design the following and attached, should provide confidence that the system proposed meets the requirements of this condition.

2.0 **The Condition**

The Planning condition asks *“Unless otherwise agreed in writing by the Local Planning Authority, prior to commencement of each phase of the outline element of the development, or any of the elements of development for which full planning permission is hereby approved a scheme designed to minimise the ingress of polluted air into buildings in the relevant phase/relevant component of the full planning element shall be submitted to and approved in writing by the Local Planning Authority. The design must take into account climate change pollutants. Any suitable ventilation systems will need to address the following:*

- i. Take air from a clean location or treat the air and remove pollutants*
- ii. Be designed to minimise energy usage*
- iii. Be sufficient to prevent summer overheating*
- iv. Have robust arrangements for maintenance”*

Thereafter the scheme shall be completed in strict accordance with the approved details and maintenance for the life of the development.

3.0 **Employers requirement**

In response to the condition we confirm the following:

- The ingress of polluted air into the building, will be minimised by the use of mechanical whole house ventilation units. These individual units will draw fresh air into the apartment, filter this air, removing large particulates, and heat the air using heat recovery, then pass through a high efficiency carbon filter unit, before supplying conditioned air into the space. See attached drawing.
- As described above, the integral filtration will remove large particulates but will not include NO_x filtration as the development fall outside of the air pollution zone. See attached air quality map over marked with the Dice Development, for clarity.
- The equipment proposed for each apartment, will provide “Whole House Heat Recovery Mechanical Ventilation (WHMV), and will be a Nuaire MR-Xbox95AB-WM2H unit and be complete with summer by-pass and humidity stat, for boost ventilation. Stale air will be

permanently extracted from the bathroom, kitchen and living areas, increasing to boost setting dependent upon moisture levels. Manual (boost) override will be provided, in the kitchen, store (containing washing machine) and bathroom/ensuite. Automatic boost, with adjustable overrun, shall also be provided to the WC/ensuite's when the main light (not mirror light) is on. When in boost mode, a neon/LED indicator, positioned above the door of the utility space containing the MVHR unit, shall be illuminated.

- The particulate air filters used in relation to the ventilation system, shall be hand washable and be easily removed without specialist training or tools.
- Low volumes of fresh air will be drawn in through high level architectural louvres, built into the fabric of the building, at low velocity. These will be sighted to ensure there are no polluting sources local to the intakes. Maintaining the low velocity approach will enable the same elevation to be used for both air intake and exhaust air if necessary.
- The use of heat recovery will ensure very little energy is used or wasted.
- The Whole House Ventilation System will be provided with "Automatic Boost" facility to provide mechanical cooling and avoid summer time overheating by use of the summer bypass controls.
- Each WHVU will be mounted at high level in store areas enabling easy access for ongoing maintenance.