

**Renold Building, Manchester
Planning Submission
Ventilation Strategy Statement**

Jan 2024

Introduction

This statement has been prepared to provide outline details of the ventilation proposals for Renold Building, part of the University of Manchester estate in Manchester.

The development consists of the refurbishment of the Renold Building, comprising a total of eight floors.

- Basement will comprise of landlord plant areas.
- Lower Ground Floor will comprise of landlord reception and Entrance area, bookable meeting / co-working rooms, WC facilities, and Open plan office suite.
- Upper Ground Floor will comprise of bookable meeting rooms, WC facilities, Open plan co-working offices, Kitchen, and Central Breakout spaces.
- First Floor to Seventh Floor will comprise of commercial offices and landlord WC facilities, as well as Lecture Theatres at each level.
- Roof Level will house landlord plant including Air Handlings Units, toilet extract fan/s and future commercial office and retail tenants plant allowance

The majority of the refurbishment proposals will see the existing systems being reused. The design and installation of any new ventilation systems will be developed in line with the following:

- Current Building Regulations Approved Documents
- CIBSE Guidebooks
- Health and Safety at Work Act
- Manchester City Council planning conditions and requirements
- All relevant British Standards and Codes of Practices
- DEFRA (Department of Environmental, Food & Rural Affairs) Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems

Lecture Theatres

The existing HVAC Installations serving the Lecture Theatres to be reoccupied on all floors are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. No changes to the HVAC are proposed in these areas.

Lower Ground Floor Offices and Public Areas

The existing HVAC Installations to the Gallery/Entrance area, general circulation areas, and staff facilities rooms are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. No changes to the HVAC are proposed in these areas.

In the newly formed Suites and meeting rooms, it is proposed that the existing ventilation system is retained and modified where required to serve the newly formed zones. New VRF heating and cooling is proposed to be installed with plant for this system being

discreetly located on either the roof, or within an acoustic compound in the existing car park adjacent to the current bin store.

New extract ventilation is to be provided to serve the newly formed tea points and WCs via a centralised system with fan and exhaust to be located on the second floor roof above the location of the tea point/riser at upper ground level.

The existing HVAC services for the existing WCs, are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. No changes to the HVAC are proposed in these areas.

Upper Ground Floor Offices and Public Areas

In the newly formed co-working and meeting rooms on the East side of the building, it is proposed that the existing ventilation system is retained and modified where required to serve the newly formed zones. New VRF heating and cooling is proposed to be installed with plant for this system being located within the same compound as that of the Lower Ground Floor.

In the newly formed co-working area on the West side of the building, it is proposed that new MVHR unit(s) with integral DX heating/cooling coils are to be installed to provide fresh conditioned air to the space to meet the new internal occupancy requirements. The MVHR units are to be located either internally ducted to louvres that will replace the existing windows at high level within the space, or be located out of view externally at roof level and ducted through the existing window openings to serve the space. The system shall be a continuous mechanical balanced ventilation system complete with heat recovery and shall be designed and installed in compliance with Building Regulations Approved Document F.

New extract ventilation is to be provided to serve the newly formed tea points and WCs via a centralised system with fan and exhaust to be located on the second floor roof above the location of the tea point/riser at upper ground level.

The existing HVAC services for the existing Kitchen and WCs, are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. No changes to the HVAC are proposed in these areas.

Level 01-06

The existing HVAC Installations serving the Offices on these floors are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. Modifications to internal ductwork will be undertaken where required, we expect there to be no works to the external louvres or ductwork.

New extract ventilation is to be provided to serve the newly formed tea points and Existing WCs via a centralised system with fan and exhaust to be located within the rooftop plantroom, and ducted to an external louvre or roof at this level. The louvre/termination will not be visible from ground level.

Level 07

The existing heating system for this floor is to be stripped out and replaced with a new VRF heating and cooling system to meet the heat load for this floor. The ventilation system is to be stripped out up to the incoming connections to the floor, and re-configured to suit the new VRF system. we expect there to be no works externally or outside of the floorplate to accommodate these changes. The External VRF plant for this system is proposed to be discreetly located on either the roof, or within an acoustic compound in the existing car park adjacent to the current bin store.

New extract ventilation is to be provided to serve the newly formed tea points and Existing WCs via a centralised system with fan and exhaust to be located within the rooftop plantroom, and ducted to an external louvre or roof at this level. The louvre/termination will not be visible from ground level.

Other Areas

The services to all areas not mentioned in this statement are to be retained as existing with no works internally or externally to modify their routing or design parameters. Any works to these services are to be "maintenance and re-instatement" based only.

Acoustics

All new plant and equipment that is to be located externally shall be attenuated and sound proofed where required, to ensure that its installation does not increase the ambient background noise in the local vicinity.