

18-24 SEEL STREET LIVERPOOL

VENTILATION STRATEGY

(Edition 2 - September 2017)

ABACUS CONSULT LTD

BUILDING SERVICE CONSULTING ENGINEERS



ABACUS CONSULT LIMITED



PROPOSED RESIDENTIAL & COMMERCIAL DEVELOPMENT, 18-24 SEEL STREET, LIVERPOOL

VENTILATION STRATEGY

A full dynamic thermal analysis of the proposed development at 18-24 Seel Street, Liverpool will be carried out. The building will be assessed for compliance against Part L of the Building Regulations and EPC's will be produced for the various areas. A summertime overheating assessment will also be produced in accordance with CIBSE guidelines. Residential areas of the development (each and every apartment) will be provided with individual SAP calculations and EPC's.

All work will be carried out by suitably qualified Low Carbon Consultants (Design and Simulation registers) and Level 5 Energy Assessors.

All ventilation systems will comply with any air filtration and attenuation requirements that may be required in any future Air Quality and Acoustic Reports.

Apartment Ventilation

The proposed mechanical ventilation systems in all residential areas will be in accordance with AD Part F System 4 - continuous mechanical supply and extract with heat recovery (MVHR). Ventilation rates will be designed to comply with table 5.1a and 5.1b AD Part F. However, the above thermal model overheating results will be interrogated and any uplift in flow rates to avoid overheating will be incorporated within the designs of these systems.

With regards to purge ventilation, this will be accommodated via opening windows in accordance with AD Part F section 5.7 and Appendix B.

This ventilation strategy will contribute towards SAP compliance for the apartments.

Commercial Units Ventilation

It is proposed that the two commercial units on the ground floor will be provided with mechanical supply and extract ventilation via ceiling void or plantroom mounted heat recovery units located within the demise of the individual commercial units. External louvres will be provided for intake and exhaust air in the external walls of each unit. Ventilation flow rates for these units will be in accordance with CIBSE and AD Part F section 6. Any commercial kitchen extract systems installed will discharge at roof level.



Plunge Pool Ventilation

It is proposed that the plunge pool on the ground floor will be ventilated via air handling plant located in the ground floor plantroom. External louvres will be provided for intake and exhaust air at the rear of the building on the ground floor. Ventilation flow rates will be calculated to provide sufficient heating and humidity control within the pool hall and changing areas.







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CD	M NOTES:
•	WORKING FROM HEIGHT – USE OF SAFE WORKING PLATFORMS TO BE USED.
).	WORKING AT HEIGHT - RISK OF TOOLS OR EQUIPMENT BEING DROPPED ONTO OPERATIVES BELOW - RESTRICT ACCESS TO AREAS DIRECTLY BELOW WHERE WORKS ARE BEING CARRIED OUT.
3.	INSTALL SERVICES WITHIN CEILING AND CEILING/SERVICE VOIDS -RISK OF FALL, INHALATION OF DUST FIBRES - SUITABLE USE OF SAFE PLATFORMS AND USE ADDITIONAL PPE IE DUST MASKS, GLOVES ETC.
ŀ.	USE OF HAZARDOUS MATERIALS – HAZARDOUS MATERIALS HAVE NOT BEEN SPECIFIED IN THE NEW WORKS. COSHH SHEETS TO BE PROVIDED WHERE APPLICABLE AND SUITABLE PPE TO BE USED BY STAFF.
) .	MANUAL HANDLING OF PLANT AND EQUIPMENT – EQUIPMENT IS GENERALLY SMALL ENOUGH TO BE SUITABLE FOR MANUAL HANDLING. MECHANICAL MEANS TO BE USED TO LIFT LARGER ITEMS

CUTTING, DRILLING ETC, OF METALWORKS SUCH AS TRAY CONDUIT TRUNKING ETC – NORMAL SAFETY PROCEDURES TO BE USED, PROVIDE PROTECTIVE CLOTHING GOGGLES ETC.



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