Gardens Hotel - Manchester
55 Piccadilly (Refurb of Extg Building)
HVAC Strategy Statement

Bedroom Supply & Extract – Central Plant at roof level
Each bedroom would have a balanced supply & extract air volume based on 10ac/hr to the bathroom or 24l/s (whichever is the highest value).
Extract grille location would be in the bathroom & supply would be onto the rear of the AC fan coil located within a bulkhead in the bedroom lobby.

All bedroom supply & extract ducts would rise through the building to a dedicated AHU located at roof level.
The AHU would be attenuated to achieve the noise level specified within the planning approval.

Ground & Basement Ventilation – Decentralised Plant in ground floor ceiling void
Ground Floor & Basement ventilation would be via multiple Heat Recovery Ventilation Units (Mitsubishi Electric "Lossnay" or similar).
The HRUs would be selected to achieve a ventilation rate of 12l/s per person.
Fresh Air & Extract would be taken from Louvres installed in the façade of the building at ground floor level.

The ductwork would be attenuated to achieve the noise level specified within the planning approval.

Kitchen Extract – Existing discharging to rear of premises
The existing kitchen area is to remain. The existing kitchen extract is therefore planned to remain.

NB: All ductwork would comply with DW144.
Where ductwork passes through fire compartmentation fire dampers would be installed.
Access panels would be installed to all ductwork to facilitate cleaning.
Volume control dampers would be installed to facilitate balancing of air movement.

Air Conditioning – VRF Condensers at roof level
All bedrooms & public areas would be heated & cooled by a "Heat Recovery" VRF system (Mitsubishi Electric or similar).
Refrigerant pipework would run from fan coils to outdoor units located at roof level.
The VRF systems would be designed to comply with BSEN378.
All outdoor units would be attenuated to achieve the noise level specified within the planning approval.

Gardens Hotel - Manchester
2 Little Lever Street (New Build)
HVAC Strategy Statement

Bedroom Supply & Extract – Decentralised Plant within each bedroom
Each bedroom would have a balanced supply & extract air volume based on 10ac/hr to the bathroom or 24l/s (whichever is the highest value).
Extract grille location would be in the bathroom & supply would be onto the rear of the AC fan coil located within a bulkhead in the bedroom lobby.

Each bedroom supply & extract duct would be connected to a "Vectaire" type heat recovery unit located in the bedroom lobby bulkhead behind the AC fan coil.
The Vectaire unit for each bedroom would pull / extract air to external via louvres in the external wall of each bedroom.

The ductwork would be attenuated to achieve the noise level specified within the planning approval.

Air Conditioning – VRF Condensers at roof level
All bedrooms would be heated & cooled by a "Heat Recovery" VRF system (Mitsubishi Electric or similar).
Refrigerant pipework would run from fan coils to outdoor units located at roof level.
The VRF systems would be designed to comply with BSEN378.
All outdoor units would be attenuated to achieve the noise level specified within the planning approval.