

Hilton Hotel Liverpool

Commercial

The prestigious 215 bedroom Liverpool Hilton, opened in Summer 2009, and supplied with HVAC ductwork by specialist contractor Hargreaves. Kier Build Limited is the main contractor. Ductwork for air input and extract will ensure comfort and fire safety for guests and staff at the hotel. The contract also includes ventilation for 47 luxury apartments within the same building.

The Hilton hotel forms the final phase in the £920 million, 42 acre, Liverpool One development by Grosvenor. A striking curved building by international architects Aedas, it echoes the elegant lines of Bath's Royal Crescent. The hotel will overlook Chavasse Park, a new public open space. Lavish facilities including top class restaurants, bars, health club, meeting rooms and conference

suites, will provide guests with a stay to remember. Energy conservation was a key principle in the HVAC design. Heat recovery is therefore used on exhaust systems and rates of ventilation are

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closely related to occupancy and under the control of the building management system (BMS).

Heating and ventilation ductwork installation will take place

CASE STUDY



PROJECT DETAILS

Project Name: Hilton Hotel Liverpool

Client: Grosvenor

Contractor: Kier Build Ltd

Location: Liverpool

Value: £1.5 million

Date: 2009

during a 43 week fit out phase. Kier Build is responsible for design, construction and management of the services fit-out with Kier's in-house M&E department. Hargreaves will supply and install backbone ductwork for air delivery and removal along with the smaller final connections.

For maximum flexibility and to give guests control, air input to bedrooms will be cooled or tempered by individual fan coil units regulated by room thermostat. This conditioned air will be delivered via a bulkhead plenum and grille into the room. Extract from bathroom pods will be via a single blade damper connection to 125mm galvanised ducts that feed into the main extract systems.

Plant rooms, some totally closed and others open to the sky, are located at mezzanine and



roof level. Staff kitchens in the basement and the restaurant kitchen at ground floor level are ventilated by Hargreaves HFD kitchen extract fire duct. This is an insulated duct with access panels to permit thorough cleaning. Hargreaves standard specification stability, integrity and insulated HFD ducting is also used for smoke extract from the basement. HFD fire ducts are also used to supply the essential make-up air. The smoke extract ducts pass through the building to discharge safely at mezzanine plant room level.

The apartments are ventilated on a whole house basis with distribution via 204mm space saving plastic ductwork. These systems also have heat recovery, but are not connected to the hotel BMS. Continuous airflow is maintained at all times with facilities for occupiers to increase rates of air flow, heating and cooling as desired.

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