



## Charing Cross Hospital

### 9<sup>th</sup> Floor North Ward Hyper Acute Stroke Unit

#### PROJECT DETAILS

##### Client

Imperial College Healthcare NHS Trust

##### Consulting Engineer

Eta Projects Ltd

##### Architects

Ansell & Bailey Architects

##### Quantity Surveyor

WT Partnership

##### CDMC

WT Partnership

##### Value

£1,400,000.00

##### Timescale

9 months

#### DESCRIPTION

Imperial College Healthcare NHS Trust is upgrading the Wards at Charing Cross Hospital. The project involved the strip out of the existing redundant services and the installation of new to suit the specific requirement of the new Hyper Acute Stroke Unit at 9<sup>th</sup> Floor level.

#### OBJECTIVES

To provide Mechanical and Electrical services to suit a new Hyper Acute Stroke Unit Ward. The existing ventilation and heating systems were utilised where possible and supplemented with new to ensure that the required space conditions were provided.

The existing area Electrical supply was rationalised and upgraded to suit current requirements. New lighting, small power, nurse call, etc were provided.

#### DESIGN

The design of the new Mechanical services included ventilation/comfort cooling, Low Temperature Hot Water (LTHW) heating, domestic hot and cold water services, soil & waste drainage, pneumatic tube system and medical gases.

The Electrical services consisted of a new power supply, essential and non-essential power to the work areas, lighting/emergency lighting, nurse call, security, fire alarm and voice and data.

#### SPECIFIC DESIGN REQUIREMENTS

The existing heating and ventilation system consisted of under window linear grilles served from the tower block central ventilation systems. A local terminal re-heater was installed within a plenum box supplied with primary air. This installation was a major issue for infection control.

The new system involved utilizing the existing central ventilation system and installing at high level within the ceiling void VAV ventilation units serving ceiling mounted diffusers. The heating was extended from the existing system to serve ceiling mounted radiant heating panels. The air volume was provided to satisfy the summer load and reduced in winter to suit minimum fresh air. The heating system control was interfaced with the VRV to ensure there was no hunting of control between heating and ventilation.