

CREATING A NEW INTENSIVE CARE UNIT AT QUEEN'S HOSPITAL, ROMFORD

A NATIONAL NEED FOR ADDITIONAL BED CAPACITY

At the start of the first wave of the COVID-19 pandemic in March 2020, the NHS had a severe lack of Intensive Care Unit (ICU) bed capacity, and **as a result the Government made capital monies available for the construction and development of several field hospital units.**

These facilities were named **Nightingale Hospitals** and set up in various locations strategically located around the country. Money was also made available to NHS Trusts who could develop or redevelop existing space to increase capacity. This presented a real opportunity to treat more patients for Queen's Hospital.

THE OPPORTUNITY FOR QUEEN'S HOSPITAL

Queen's Hospital was built under the Private Finance Initiative (PFI) in 2006. As part of this development, **one 30 bed ward was created but left as grey space for future expansion** and used as storage space for beds and equipment in the interim.

To understand whether this space could be repurposed, the Trust conducted a space planning exercise to establish how many beds a self-contained ICU ward could deliver.

CLIENT PROFILE

TRUST

Barking Havering and Redbridge University Hospitals NHS Trust (BHRUT)

OPENED 16th Oct 2006

HOSPITAL TYPE Large Acute

BEDS 980 Inpatient Beds

EMPLOYEES 7,000 Trust Employees 670 Sodexo Employees

FIRST PARTNERED WITH SODEXO 2005

SERVICES PROVIDE

- Domestics
- Patient Dining
 - Security

- Reception

- Waste management
- Portering - Ha<u>rd FM</u>

- Retail

- Switchboard
- Grounds & Gardens
- waste mana - Car Parking

SODEXO HEALTH & CARE

There was one major blocker; the piped oxygen capacity was not sufficient for the whole hospital during the first major wave of COVID-19 and the current infrastructure could not be modified without a full site shut down of piped gas to the whole hospital, which was unconceivable.

However, a window of opportunity presented itself at the end of the first wave and significant works were undertaken to install new valves and increase capacity from 3000 litre per minute to 5000 litres per minute. This upgrade to the piped oxygen capacity meant that a new ICU ward was now a possibility.

PLANNING WITHOUT BOUNDARIES

The Trust, Catalyst and Sodexo Health & Care agreed to adopt a contractual position for fast delivery under emergencies powers to minimise any delays, and with the agreement of the Funders and the SPV, the work started immediately.

Sodexo Health & Care appointed designers and a main contractor for the project. Both teams worked closely with the Trust Estates and their Critical Care Clinical teams to develop the design requirements, with the design team translating everything back to the HTM/HBN standards.

A fully compliant and self-contained 15 bed ICU ward was designed with surge capacity, and included 5 isolation rooms, of which two are negative pressure rooms with lobbies.

Two key objectives were agreed by all teams:

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The space needed to be bright and airy with excellent visibility of all patients to provide the best care possible, incorporating research on the effects of hallucination of sedated patents in an ICU environment.



The space needed to be flexible, providing the ability for the space to be used as a field hospital to support further pandemic surges.

A fully compliant and self-contained 15 bed ICU ward was designed with surge capacity, and included 5 isolation rooms, of which two are negative pressure rooms with lobbies. All rooms have glass fronts and sliding doors, which includes the entrance to two 5 bed bays.

The staff base sits behind a glass screen the length of the two 5 bed bays, giving **unprecedented visibility of patients, objective 2 delivered and more importantly provides window light from two aspects**.



COLLABORATIVE CONSTRUCTION

The team approached the project in a highly collaborative fashion, with a commitment to deliver a high spec, high quality product in the fastest time possible, aligned to target dates.

The construction required large pieces of air handling plant to be craned in to lightwells, and holes to be core drilled into a critical Respiratory Care Unit below. This required some of the most critically ill patients in the hospital to be safely relocated to a temporary ward for a week.

During that time, and with careful planning and execution, we were able to not only core drill and connect all the drainage pipes but modify the oxygen pipework to create a high flow system to increase capacity from 7.5 litres per minute at each bed to 75 litres per minute per bed.

This feat was only possible due to the flexible approach and co-operation of all parties and stakeholders working towards the project goals.

The 15-bed state-ofthe-art ICU officially opened on Tuesday 15th February 2022, and in recognition of the Queen's 70 years on the throne, was named the Jubilee ITU.

A BRAND-NEW ICU IN OPERATION

Matthew Trainer, CEO of Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT) celebrated the new unit.

"Whether it's Covid or whether it's other respiratory illnesses or whether it's people who have more advanced cancer than they might have had, we now will have that extra flexibility with a state-of-the-art critical care facility in Romford to cope with that."

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