

Bender UK critical care power & lighting installation project at Colchester General Hospital



Bender UK has provided the IPS and UPS critical power network and supplied and installed touch screen control panels, and Steris LED theatre lighting and pendants for the new operating theatre in the maternity unit at Colchester General Hospital.

In addition to building the second maternity operating theatre, the £1.2m package of improvements has included creating a triage area to assess pregnant women on arrival, and improving the environment of the Delivery Suite and the Juno Suite, a midwifery-led unit.

Colne Valley Building Services Ltd was main turnkey contractor for fit out of the new operating theatre and was responsible for delivering the theatre to a very tight program, with minimal impact on the adjacent clinical areas which remained operational throughout the project.

They required specialist sub-contractors and suppliers who understood the challenges could be trusted in terms of quality and performance; Bender was recommended by the hospital's M & E consulting engineers which had previously worked with Bender.

Nick Lee, Managing Director of Colne Valley Building Services Ltd said: "We were immediately impressed with Bender's technical expertise and 'can do' attitude. Bender offered considerable

design input throughout the project to ensure that we provided the best possible solution within our budget."

That included increasing the resilience and safety of the operating theatre's electrical supply through the installation of Bender's ATICS medical auto-changeover device.

ATICS removes the single-point-of-failure threat to power resilience inherent in the traditional single supply cable, by enabling supply from 2 different sources. It is the only changeover solution purpose-designed for medical applications with patient safety at the very core of its conception and development. Central to the ATICS design is the incorporation of permanent self-testing across all critical components. ATICS has the unique distinction of achieving independent (TUV) accreditation to the Safety Integrity Level (SIL) Level 2 standard and compliance with BS7671 2008 (2001)



Bender also engaged with the clinical team and carried out in-theatre trials of the proposed Steris XLED surgical lights.

As the manufacturer of the surgeons' panel which forms the 'hub' of the theatre, Bender project-managed that aspect from start to finish. Interfaces within the surgeons' panel such as surgical lighting and IPS-UPS were already covered under the Bender contract, but a number

continues

Bender UK critical care power & lighting installation project at Colchester General Hospital



of third party systems also needed to interface with the surgeons' panel.

Bender's project manager liaised closely with the project's medical gas, ventilation and controls specialists to ensure that the surgeons' panel was designed and programmed to interface correctly with their systems, ensuring there were no delays or problems at commissioning stage.

Nick adds: "I am pleased to say that thanks to Bender's assistance we delivered a fully functional operating theatre on time and to the complete satisfaction of our client."

Miss Jo Osborne, Divisional Director for Women's and Children's Services and a consultant obstetrician, commented: "We're delighted with the improvements to our maternity unit."



"We now have state-of-the-art theatre and recovery facilities which enable us to care for two women requiring caesarean section (or other procedures) at the same time."

Dymphna Sexton-Bradshaw, Head of Midwifery, added: "This project is something we started planning back in October 2012 so it is very gratifying to see it completed."

"It's now 18 years since the unit opened and while there have been upgrades and modernisation projects over the years, this is the most significant development yet."



"It will make a real difference in terms of the options of care we can offer our women and the environment in which they can have their babies."

Colchester Hospital University NHS Foundation Trust has two main sites: Colchester General Hospital and Essex County Hospital. The Trust provides healthcare services to around 370,000 people from Colchester and the surrounding area of north east Essex.

Colchester General Hospital opened in 1984. There are 596 inpatient beds (general and anaesthetic), 44 maternity beds (including at Clacton and Harwich hospitals) and 12 critical care beds (excluding cots or A&E).