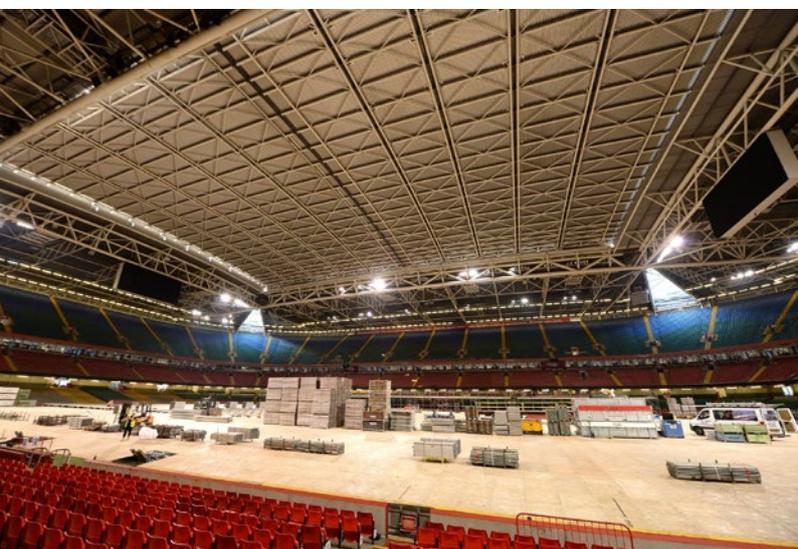




Case Study Temporary hospital in stadium of Cardiff

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| CLIENT | ES Global |
| PROJECT | Temporary COVID-19 hospital |
| PERIOD | Text April – June 2020 (3 months) |
| LOCATION | Cardiff, United Kingdom |
| STRUCTURE | Alu Halls |



The Assignment

As the COVID-19 epidemic was spreading, the UK government and NHS England were planning temporary large-scale critical care hospitals to provide cover for the projected increase in patients likely to need this type of facility. The temporary hospital in Cardiff, located at the Principality Stadium, was the third of the Covid-19 hospitals set up in the United Kingdom as part of the national response to the Covid-19 pandemic.

The hospital was named following a public consultation, Dragon's Heart Hospital which was chosen by staff and the public from 2,000 responses. It was formally opened on 20 April by Charles, Prince of Wales, via a pre-recorded video message.

The Solution

Text After research of Cardiff and Vale University Health Board it felt necessary to expand capacity in the Cardiff and Vale of Glamorgan area though a large temporary hospital. The Principality Stadium was established as an early candidate for the field hospital as the UK's fourth largest stadium and the largest in Wales. The site was designed and the build commenced under two weeks in March.

It took a 25-strong crew of Neptunus technicians just 10 days to build Cardiff's temporary hospital in readiness for the internal fit-out. Neptunus build 12,950 square metres of Alu Halls with cassette flooring and white roof skins. Two wide clear span Alu Halls were built on the pitch whereas another three Alu Halls where built on scaffolding partly in the stands. Outside the stadium a 300 square metres Alu Hall was built as a crew catering area.

The hospital – with 300 beds with space to expand to up 2,000 beds – opened for service on the 13th April. Facilities available include mobile X-ray and CT scanners, and the stadium has opened both the playing surface and directors boxes for use as treatment space. The home and away dressing rooms have been repurposed to serve as office spaces. A police cell in the under-course of the stadium has also been made available.

Working on behalf of Cardiff and Vale University Health Board, ES Global Ltd are the Principal Contractor leading a distinguished team of companies to deliver the build elements for the





temporary hospital inside the Principality Stadium. Neptunus was appointed as the temporary structure supplier and worked alongside a number of other event industry contractors to deliver in an efficient manner using hire stock materials.

In St. Helier, the capital of the island of Jersey, Neptunus built another Covid-19 hospital for the NHS England. A sixteen-strong crew of Neptunus technicians builds in just seven days Jersey's temporary hospital, an Evolution II of 5,200 square metres and 6 metres in height, in readiness for the internal fit-out.

The Challenges

Speed was essential in the planning to delivery on site. Cardiff and Vale University Health Board needed a temporary structure that could be constructed in a tight time frame. The project was completed within 2 weeks.

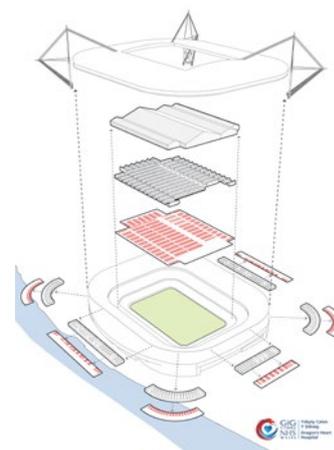
All deliveries were taken in to the bowl of the stadium through an underground tunnel. Furthermore, the building crew had to stay in quarantine to minimize the risk of contamination.

The Neptunus technicians had to lay 7,000 square metres of cassette flooring in a few days. The site manager walked an average of 20 miles per day and forklifts drove an average of 30 miles a day.

The hospital is expected to be on site for at three months. Once the pandemic is over, it will be dismantled so the Principality Stadium can be returned to its normal use. The facilities will be dismantled and returned to Neptunus' stock for other projects.

The Verdict

Jeff Burke Director of ES Global said: "This has been a tremendous effort by all involved. To make available 300 beds in just 10 days is quite amazing and we're continuing to do our utmost to make the other beds available as soon as possible. We can only thank all of our event industry colleagues, old and new, who have come together in these unprecedented times to deliver what will be an outstanding facility."



FACTS & FIGURES



Temporary hospital in the Principality Stadium of Cardiff to increase acute care capacity for coronavirus patients



April - June 2020 (3 months)



Built within just 10 days



12,950 square metres



"To make available 300 beds in just 10 days is quite amazing."



DRAGON'S HEART HOSPITAL
BUILD-UP TIMELAPSE

neptunus.co.uk