



Expansion of Portland Port deep water berth

Background

Portland Port on the Dorset coast, operated as a Royal Navy base for nearly 150 years up until 1996, when it was then privatised and taken over by the Langham Group. Since then it has become a thriving commercial port which welcomes ships of all sizes from yachts to some of the largest cruise ships in the world.

With the number of cruise ships visiting the port increasing every year coupled with growth in the volume of cargo ships bringing in animal feed meant that Portland Port needed to increase its capacity to handle an ever-increasing number of vessels.

Managing Contractor



Solution

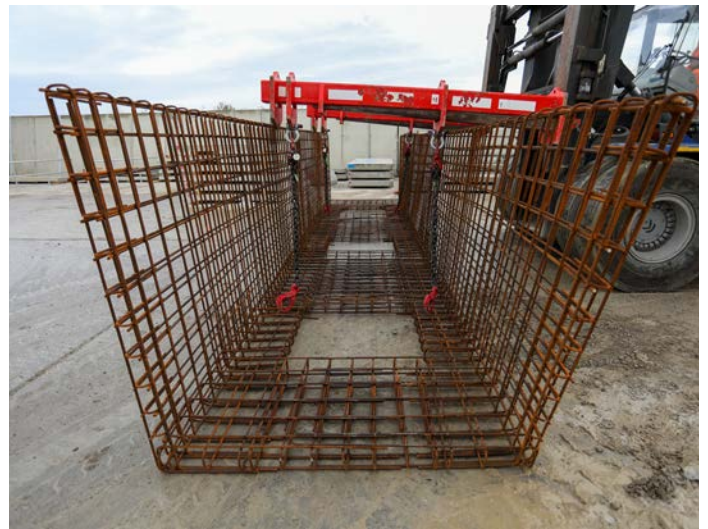
In 2022 Portland Port began an ambitious improvement project investing £25 million which saw the existing Deep Water Berth removed, and in its place a new extended berth along with a 74 m extension to the solid quay face. In doing so the new facilities will be able to handle two 350 metre cruise ships alongside at the same time as well as providing 16,000 m² additional quayside space.

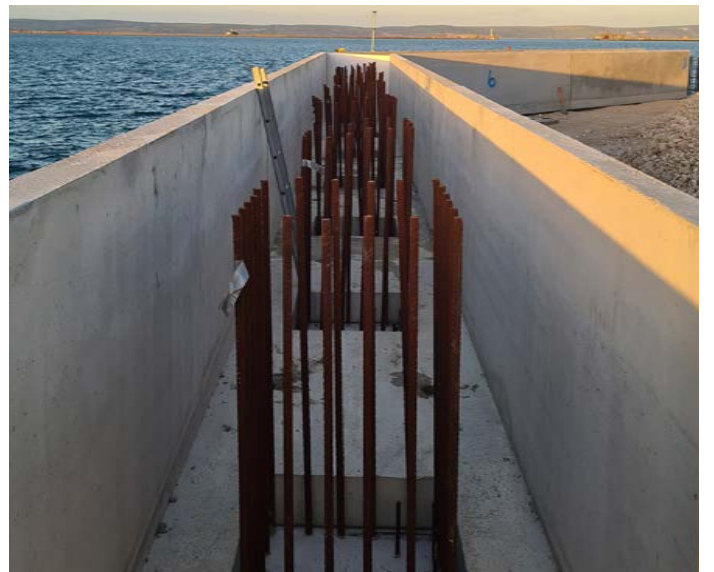
With work starting on 1st October 2022 and with the first two of the larger ships due in May 2023 the works had to meet a demanding completion deadline.

How we helped

We supplied 46 precast U channels which were placed over the steel piles and subsequently filled with concrete to provide the solid quayside. Due to the number of units a steel mould was manufactured. The channels which typically were up to 9.5 metres long, 2 metres wide and 1.87 m high. With the units weighing up to 23 tonnes each approximately 500 m³ of concrete was used. Knights Brown were very keen to deliver carbon savings where possible and a 46% cement replacement mix was used utilising GGBS which delivered carbon savings of approximately 63 tonnes of CO₂ (a 34% reduction).

135 D blocks were also produced which were placed within each steel pile. These were used to connect the piles to the capping beams (with the help of a reinforcing cage and insitu concrete), as well as providing a connection for the 33 metre long tie rods.





Photos kindly supplied
by Knights Brown

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