£67m Ipswich Tidal Flood Barrier wins top engineering award

The project, which better protects over 1,600 homes and 400 businesses from the risk of flooding, has won an Exceptional Merit Award from the Institution of Civil Engineers (ICE) East of England Merit Awards.

The Barrier was recognised in the Technical Excellence and Innovation category.

ICE is a professional membership body, supporting more than 90,000 engineers around the world.

Costing almost £70million, the Ipswich Flood Defence Management Strategy comprises a mix of new and refurbished flood walls and gates along 1,100 metres of the River Orwell.

The barrier's centrepiece is a 200-tonne rotating Radial Sector Gate, which can be raised in minutes in the event of a tidal surge. The barrier was officially unveiled by Floods Minister Dr Thérese Coffey in February. The flood gate has a design similar to that of the Thames Barrier and is so large that it is coated with 6 tonnes of protective paint. The flood gate rotates upwards out of the sea floor into the closed position, holding back dangerous tidal surges that could flood the town.

The new defences provide a much higher level of protection from the type of tidal surge which threatened the town in 2007 and 2013, both of which were close to spilling over the existing defences.

Aside from the reduced flood risk benefits, the flood defence scheme has the added advantage of helping to boost the local economy through freeing up hectares of land for regeneration.

The Environment Agency project was approved by Defra in 2006 and has been delivered by contractor VBA — a joint venture between VolkerStevin, Boskalis Westminster and Atkins.

The barrier scheme has an exemplary health and safety record. Risk on the project was designed using 3D and physical modelling, along with VolkerStevin's behavioural safety programme.

This resulted in no reportable incidents throughout the three year construction process, which comprised more than 300,000 hours of work. As a result, the project is now being used as a case study for other Environment Agency works including the Boston Barrier.

Andrew Usborne, the lead officer on the scheme, said the award was welcome recognition for the Environment Agency and its partners.

He said:

This is fantastic news for everyone involved, including all the Environment Agency staff, our contractors VBA and sub-contractors.

It has been a hugely successful construction project, one which is being used as an example to other Environment Agency schemes across the country of safe and effective partnership working.

Simon Hawkins, Environment Agency East Anglia Area Director said:

I'm delighted that the barrier has received this award. It's a testament to years of hard work and dedication from my team at the Environment Agency and our contractors.

Wendy Blundell, ICE Director of UK Regions, said:

The newly completed flood barrier, which in itself is a remarkable technical achievement, integrates into the larger flood prevention schemes and means that Ipswich is better protected against the tidal surges from the North Sea.

As many as 1,500 homes and 400 commercial properties are now living with a significantly reduced risk of flooding thanks to the delivery of this project.

This is not the only recognition the project has received — it has picked up the Civils Project of the Year at the Constructing Excellence SECBE Awards 2019, presented by the South East Centre for the Built Environment. The scheme has also been shortlisted by the British Construction Industry Awards in the Climate Resilience Project of the Year category.