

Swansea West Pier

Paving the way at the Port of Swansea's West Pier

£5.5m

/ Project value

January 2020

/ The project commenced

September 2021

/ The project was completed

As part of a £10m scheme focused on the prevention of coastal erosion, we carried out major refurbishment and rehabilitation of the inner section of the Port of Swansea's West Pier and the adjacent land. The significant investment by our long-term partner, Associated British Ports (ABP), is creating the opportunity for the development of public access on top of the rebuilt structure, something that will have a positive impact on the local community long-term.

The brief

A section of the Swansea West timber pier provides wave protection to the navigation channel and the Tawe Barrage. The principal purpose of the Design and Build scheme was to build a new wall sheet piling to avoid further deterioration of the structure and maintain the pier's stability for the next 50 years.



"Our team in Swansea working with GRAHAM, are doing an excellent job managing this project, minimising disruption to the marine and operational environment, and delivering these reconstruction works which benefit the City of Swansea and local residents as well as ensuring security of marine access to the marina and protecting navigation."

Andy Hartson
ABP Wales and Short Sea Ports Director

“One of our core values at ABP is to be good neighbours in the communities we operate. By making this significant investment in the repair of Swansea West Pier, we are not only preventing coastal erosion but also hope that we will create an opportunity for Swansea Council and others to develop public access on top of the rebuilt structure to benefit the local community in future.”

Robin Gray

ABP Port Manager for Swansea and Port Talbot

The challenges

The marina sees substantial water traffic from leisure and private fishing boats, whose leases provide a direct revenue source for ABP. As the working area for the Inner West Pier is at the marina entrance, it was essential that this area remained clear to ensure boating access was not impeded, and the safe navigation of the vessels was protected. Construction work included the building of a new retaining wall (sheet piling) to support the existing pier structure and was preceded by a range of engineering and environmental surveys to ensure that disturbance to the marine and operational environment was to be minimised. As part of this, an important goal was to also make sure the work was organised in a way that would help protect the navigation of vessels.

The solution

A range of engineering and environmental surveys to ensure that disturbance of the marine and operational environment would be minimised were carried out prior to the finalisation of the design. A key benefit of our proposal was the alternative delivery methodology focused on site establishment for plant, machinery, equipment and building of the new structure from land. This solution had numerous benefits including reduced cost and increased programme security, as it removed the reliance on expensive and hard-to-source marine plant.

The new retaining wall was constructed using a solution-led approach to engineering challenges and was specifically developed to accommodate working within a tidal environment. Working transparently through the Preconstruction Phase meant that the design was developed in line with expectations and a foundation of trust was established. A key feature of the project's success was ensuring that the people involved in the early stages remained with the project throughout its duration.

Outputs & Benefits

Cost Saving: The project cost was reduced by 50%. We minimised the contract value from £11m+ to £5.5m, ensuring the project remained firmly within the client's budget.

Programme efficiencies of c20% achieved: Alternative working methods reduced downtime.

Environmental impact reduced: Alternative working methods resulted in less co2, avoided pollutants entering the waterway and minimised interface with marine life.

Safer solution with minimised disruption to water traffic: We significantly reduced the amount of works undertaken on the waterway by developing a solution which could be delivered from land.

Design Management: We used Viewpoint document management system to finalise the design submission with a no surprises approach – ensuring a timely sign off within nine months.



For more information on how we're delivering lasting impact:

+44 (0) 28 9268 9500

info@graham.co.uk

graham.co.uk

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