



Isle of Grain Jetty Repairs

Frankham were commissioned to carry out a structural inspection of the jetty at Aggregate Industries' site on the Isle of Grain

Overview

The inspection works identified that the jetty would require some repairs to maintain its operational safety and desired life span. At this stage, the project was split into 4 key phases with Frankham acting as Principal Designer:

1. Condition Inspection & Recommendations
2. Repair Designs & Marine Licence Pre-applications
3. Procurement & Marine Licence Applications
4. Construction

Frankham were responsible for the design and preparation of a tender specification that included a new fender system, protective coating for steel piles, a berthing aid system and concrete repairs. The design works included preparation of construction drawings in addition to structural calculations and, berthing and mooring analysis. Alongside Aggregate Industries' procurement, legal and project teams, Frankham oversaw the procurement stage of the project. This included selecting specialist contractors to be invited to tender, handling any technical queries relating to the works and preparing a tender analysis report with a recommendation for award.

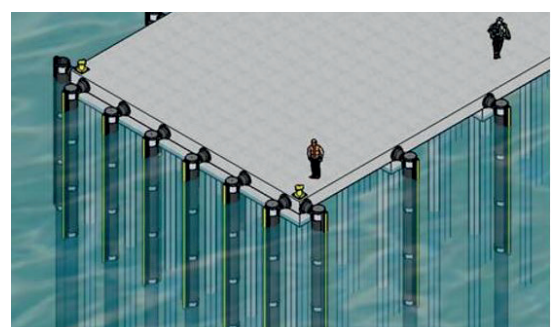
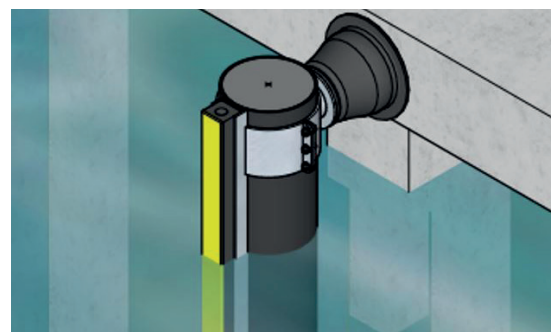
In the final phase of works, Frankham will be acting as Project Manager under the NEC4 contract and providing site supervision for quality assurance and contract administration on behalf of Aggregate Industries. This will be a fantastic opportunity for our technical staff to witness the implementation of their hard work and designs.

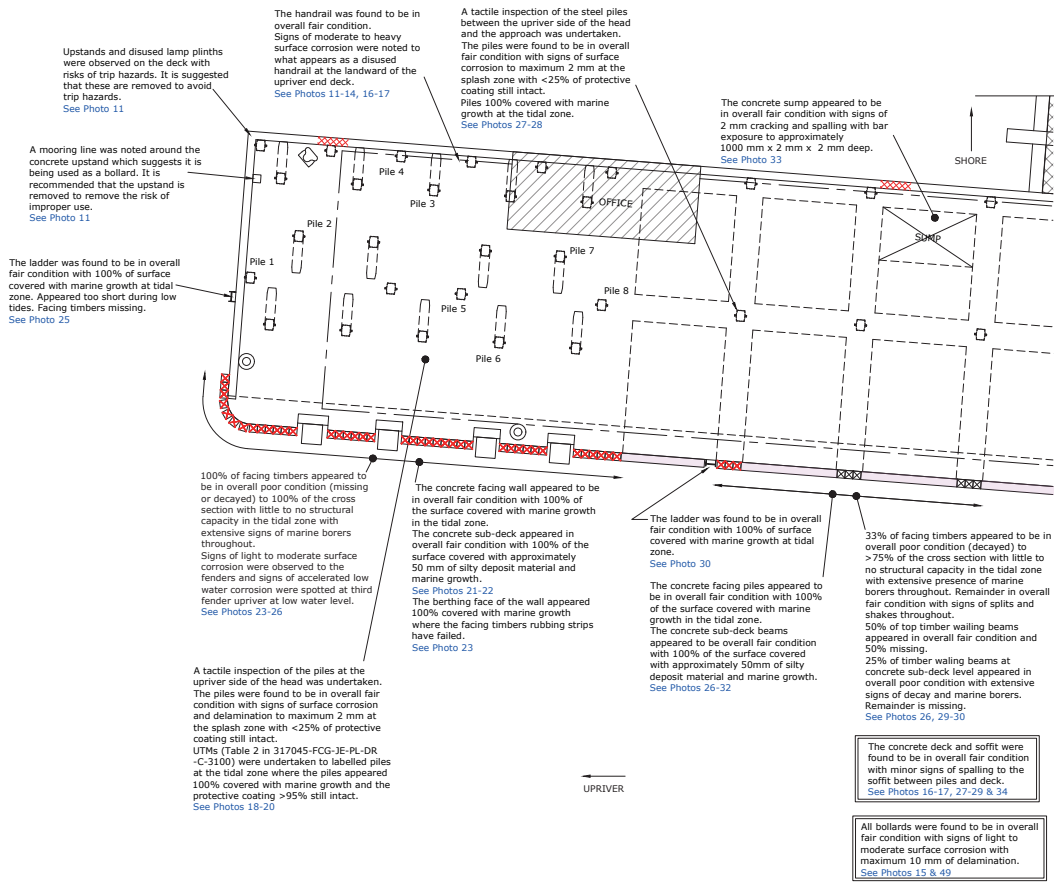
Client:
Aggregate Industries

Value:
£2m

Services:
Civil Engineering
Maritime Engineering

Start and End Dates:
October 2021 - October 2023





Innovation and Added Value

In addition to the use of specialist mooring and ship berthing software, Frankham were also given the freedom to explore alternatives to tropical timbers for fender use. An innovative method of combining softwood (accoya) and resin has helped develop a highly durable composite that is suitable for marine environments and is being explored for use on this project. The benefits it would bring include resistance to marine borers, high durability and therefore improved lifecycle and embedded carbon costs.

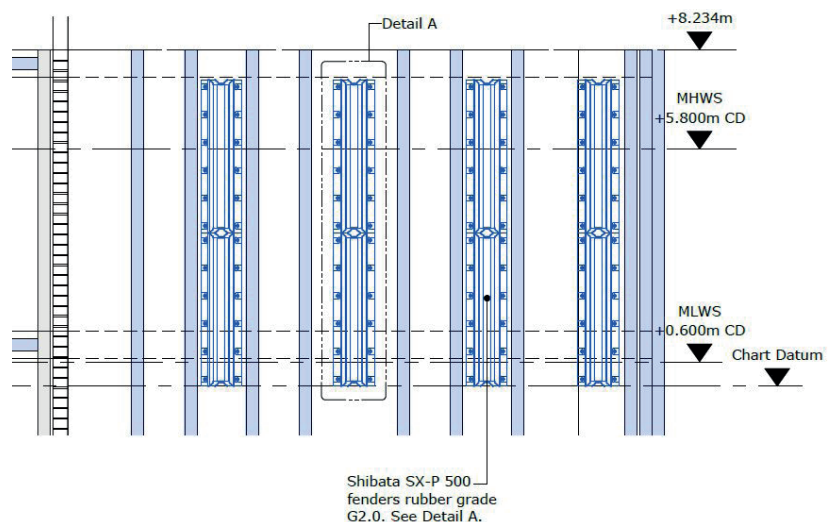
Sustainability

In addition to the accoya fender systems, Frankham helped steer contractors into utilising the river for delivery of materials and reducing the number of road traffic to and from the site.

Prospective contractors scored points for sustainable initiatives they would implement on the project such as the use of electric safety boats, solar powered welfare units and using recycled timber.

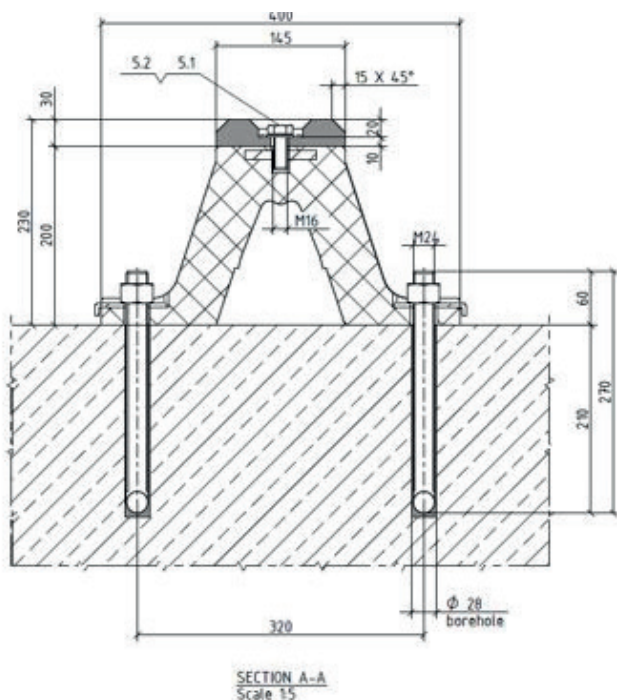
Challenges

The key challenge behind this project is the operational downtime of the jetty while repairs are being undertaken. Extended periods of operational downtime have significant impacts on Aggregate Industries' landside operations and overall business activity of the site. To reduce the risk of extended periods of downtime, Frankham structured the tender to allow for a maximum of 4 week periods of downtime, allowing Aggregate Industries to restock the site and supply their customers. The project team have been collaborating with prospective contractors to develop a method of working using marine plant and equipment to alleviate risks.





“Overall very happy with the service. The team came in, made an assessment, formed a plan for the project and stuck to the plan and delivered. Very professional, very competent and very good service. I’ve recommended Frankham internally and externally” Gary McNeely, Area Manager - Aggregate Industries



Knowledge Sharing & Project Development

By working closely and collaboratively via meetings and workshops with all key stakeholders, Frankham were able to shape the design and construction methodologies to suit the site operations team, the landlord and statutory consenting bodies. Client trust enabled us to work as part of the Aggregate Industries team and not just as a supplier.

Whenever we are involved in maintenance and inspection works we aim to support and assist our clients with their asset management plan at whatever stage of development it is in. This approach helps our clients to maintain their structures in a more sustainable fashion. On the back of this particular project, Frankham will be assisting Aggregate Industries to develop, implement and deliver their asset management strategy.