



## Jetty Repairs

Frankham were commissioned to provide consultancy services to a contractor responsible for the overall refurbishment of the jetty.

### Overview

The terminal provides a means of storage, import and export of LPG via tanker vessels and a jetty. The jetty comprises an approach structure, approximately 280m long, a jetty head which has a total width of approximately 100m and a depth of 14m. This structure is made up of 2 concrete berthing dolphins, each 25m long and a concrete joining structure. The whole jetty is supported on steel Rendhex piles and supports a 3m roadway and various mechanical and electrical equipment such as gas and water pipes. The vessel is primarily moored using buoys located either side of the jetty, with some bollards on the jetty head for use with spring lines.

To maintain the site's operations until renewable energy sources are more widely available, the terminal and jetty is undergoing a period of upgrades to extend its design life.

Our services included:

- Specialist maritime structural and urgent defect inspections
- Preparation of concrete repair specifications
- Structural design
- Temporary work design (scaffolds and propping)
- Overall management and processing of marine statutory authority licences.

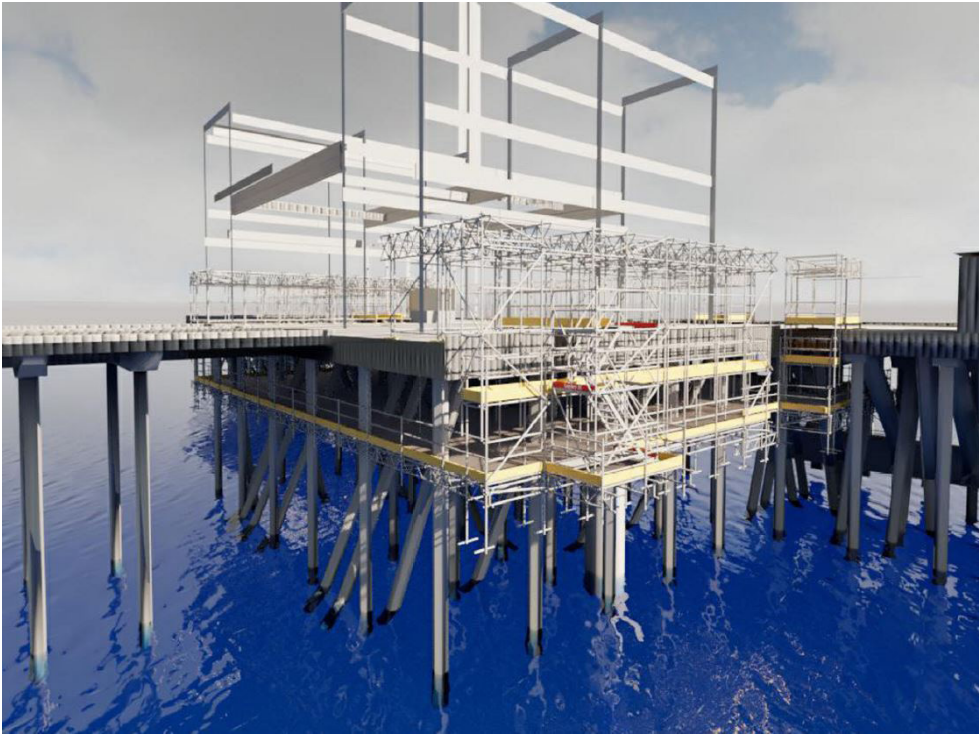
Client:  
**Topbond Plc**

Value:  
**£2M**

Services:  
**Civil Engineering  
Maritime Engineering**

Start and End Dates:  
**2022 - 2023**





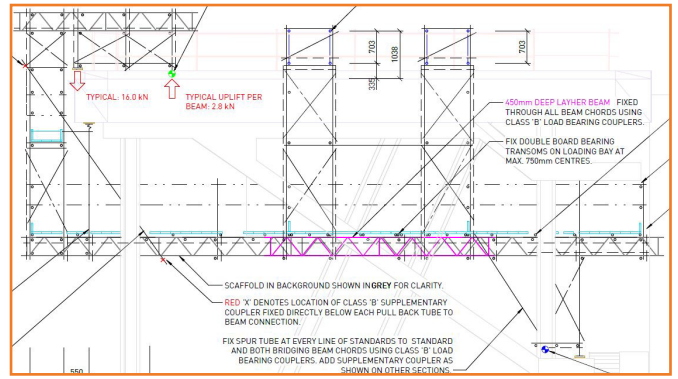
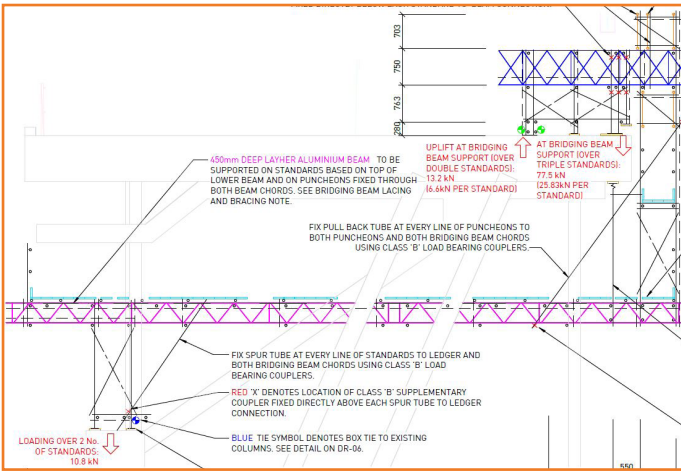
## Sustainability

Frankham engineers work on all parts of the lifecycle of assets. As part of our service on this project, we provided asset management advice regarding how to:

1. Best increase the jetty's design life.
2. Significantly reduce the embedded carbon that would have been created if the existing structure was demolished and rebuilt.

We consider the climate emergency in all aspects of our work. Members of the Civil Engineering and Building Services Teams have been working on a new carbon reduction plan and sustainability strategy for the business, a large part of which relates to the downstream effect our services have on the construction industry.





## Challenges

As with all maritime projects, access poses a problem, particularly in an extreme tidal estuary.

Frankham was able to utilise our extensive experience of gaining access to jetties in tidal environments to help with a collaborative approach to the scaffolding design.

Our Maritime team responded quickly and effectively when previously unidentified defects were found. They provided urgent defect reports and guidance to the contractor on how best to proceed with current jetty operations and ongoing repair works.

