



FRANKHAM

Maritime Engineering



Bringing ideas to life

Introduction



FRANKHAM
GROUP



Bringing ideas to life

42

YEARS

Since Steve Frankham Associates was established in 1982 as a Building Surveying practice, the company has transformed to become a top 50 multi-disciplinary consultancy providing a full range of design, consultancy and engineering services.

190+

PEOPLE

People are at the heart of everything we do, and we strive to create a culture of inclusiveness and belonging where all are welcome. We are dedicated to bringing innovative ideas to life and delivering results that are both high-quality and cost-effective.



FRANKHAM



FRANKHAM RMS



ROBSON
FRANKHAM

Lane &
Frankham 

 frankhamprojects



Why Frankham?



In-House Expertise

The Frankham Group provides a full range of design, engineering and consultancy services to the built environment. We offer a consultancy service for every step of the fabrication process, which provides a seamless dovetail alignment with all your processes, procedures and working practices.

Unique, Bespoke Service

Frankham's multi-disciplinary team offer a diverse range of specialist skills working together in one organisation. Vision, commitment, capability and experience, combined with a focus on delivering tangible human benefits, is what sets us apart.

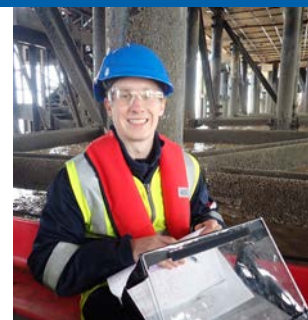


Environmental Impact

Frankham takes measures to reduce the environmental impact of buildings and promote sustainability. We are committed to creating communities that are socially, economically and environmentally sustainable to meet the needs of the present and future generations.

Our people

People are at the heart of everything we do. Our commitment to our people; providing them with a great place to work and achieve their personal career goals has been recognised by our Investors in People accreditation, which we have held since 1995.

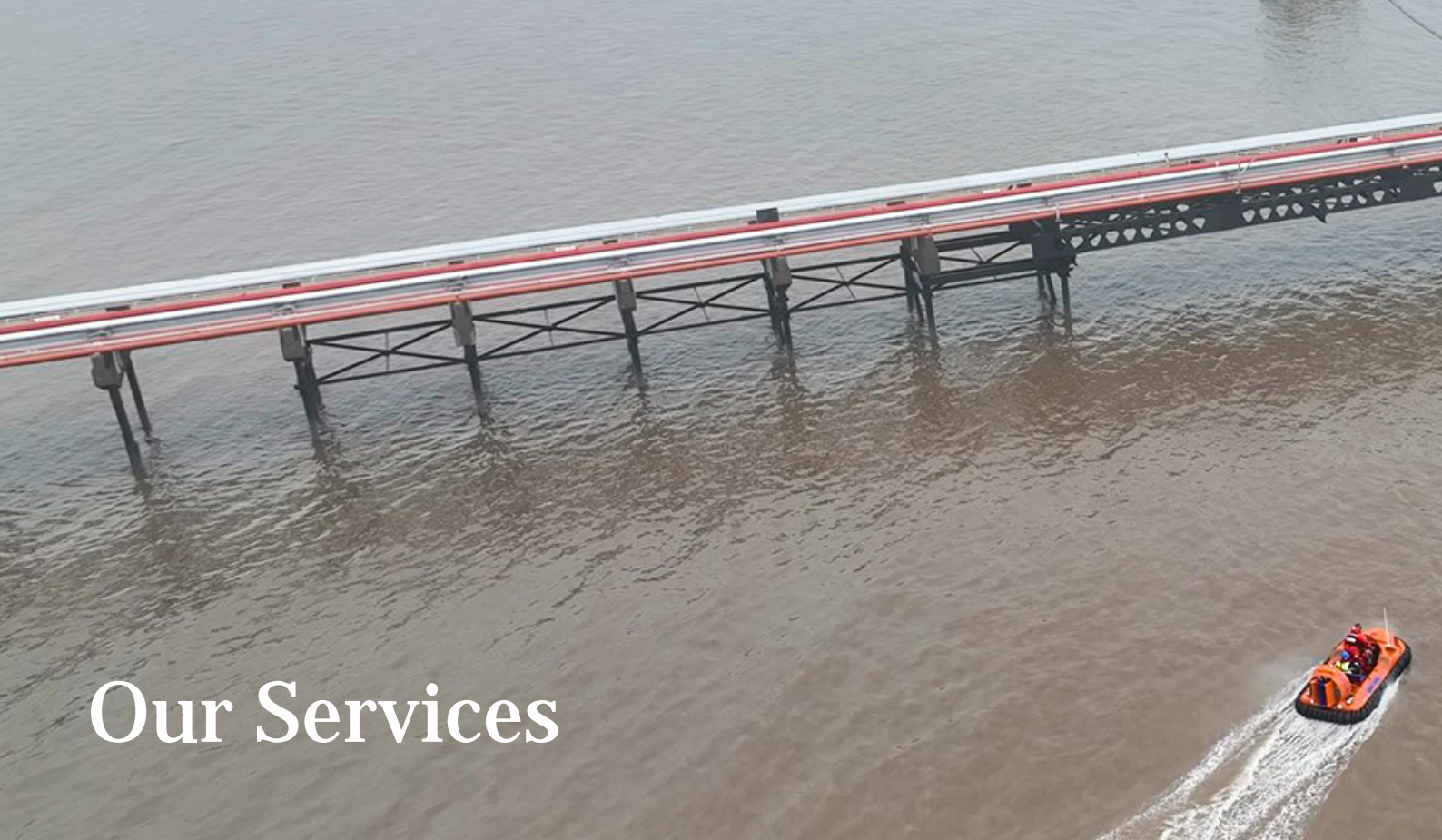


Bringing ideas to life

Maritime Engineering

We offer independent, objective advice and services covering a wide spectrum of projects. The maritime engineering team supports clients with the identification of failures or repairs of marine structures such as pontoons, jetties, piers, locks and industrial moorings. Our team is made up of highly experienced engineers who can suggest an effective solution to a client whose business relies upon a quick and accurate response. Details of the services that we provide are covered in the following pages.





Our Services

Asset Management

Frankham can provide the complete package in terms of coastal and waterfront inspection services. Our marine engineers conduct various levels of inspections on a range of structures such as jetties, pontoons, piers and sea walls for clients throughout the UK as well as providing design of necessary repairs.

We recommend, plan and conduct surveys to significantly reduce project costs and facilitate development by collecting fit for purpose data.

Inspections are typically carried out by work boat and on foot however through use of our trusted supply chain, we can now offer inspections by:

- Underwater (diving/hydrographic/scour sounding/CCTV)
- Unmanned aerial vehicle (UAV)
- Rope access
- Non-destructive testing and sampling
- Bed sampling
- Vessel mounted laser scanning

Structural Analysis & Design

Maritime structures are often located in harsh environments which require specific knowledge and expertise in design and operational functions to accommodate.

Frankham enjoy a well valued reputation for delivering design solutions and analysis from concept to detailed design, decommissioning and assessments of existing structures.

Our engineers can provide expert advice on design and construction on projects related to:

- Jetties
- Quay walls
- Mooring and berthing
- Piers
- Pontoons
- Cathodic protection
- Fenders and bollards
- Piling
- Structural repairs



Our Services

Feasibility Studies

By following our feasibility study process we can ensure that the following steps are taken when completing feasibility studies.

- Stakeholder engagement – through a culture of listening and solving problems we seek to obtain co-operative buy-in from all interested parties to facilitate development.
- Flexible resourcing and expertise – our professionally qualified engineers, planners and health and safety consultants can ensure cost-effective and fast results on projects that capture sustainable values.
- Quality assurance and discipline integration – reviews at various stages of feasibility and design ensure that quality and inter discipline compliance is achieved.

Contract & Site Support

Our clients often want reassurance that construction projects are being completed on time, within budget and critically, safely.

Frankham have extensive experience in contract administration and site supervision that ensures health and safety, progress and financial reporting is provided to the client with no surprises.

We have provided site supervision on projects for various clients throughout the UK including in upper tier COMAH sites.

Marine Licences

We provide our clients with relevant advice, guidance and support throughout the consent process. We prepare applications for marine consents and permits relating to your project. Our professionally recognised marine engineers, planners and health and safety consultants are vastly experienced in developing, reviewing and advising on permit and survey requirements.

Almost all projects in a marine environment require certain consents from statutory bodies. These can vary from the local planning and harbour authorities to the Marine Management Organisation and the Environment Agency. The consent process can often be complicated and slow, we strive to help our clients obtain consents in a smooth and timely manner.

Flood Risk Assessments

Our flood risk assessment reports outline the risks and mitigation measurements taken for each specific site. The reports outline the potential sources of flooding, site specific risks, consequences, EA requirements and strategic flood risk assessment's requirements, recommendations and guidelines.

Our Projects





Putney Pier Inspection and Design Preparation

Inspection and design preparation of mooring horns to accommodate modifications to the pontoon at Putney Pier.

Frankham were appointed by Livett's Ltd to inspect their pier at Putney and to prepare the design of mooring horns to accommodate modifications to the pontoon. To provide a detailed and accurate representation of the existing structure, we prepared a 3D Revit model of the existing structure. This model intricately combined details of the dolphins and their connections to moving components, ensuring accuracy of up to 10mm and accounting for any deviations from plumb.

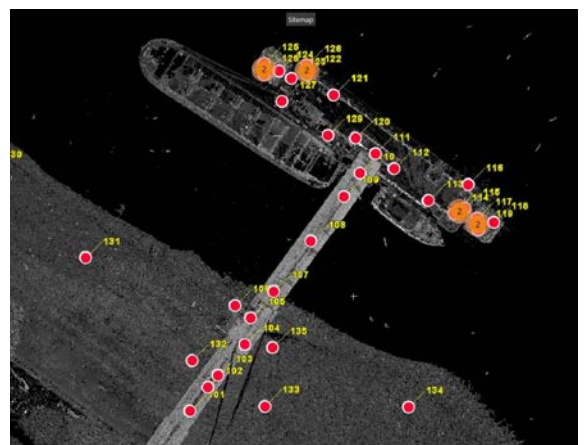
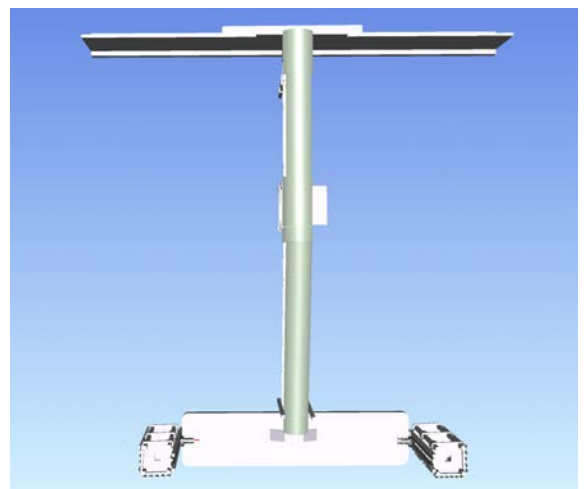
Our engineers calculated berthing energies and mooring loads essential for determining the loads acting on the structure. These loads were used to assess the structure and its ability to withstand the dynamic forces exerted during berthing and mooring operations, ensuring the safety and stability of the refurbished infrastructure.

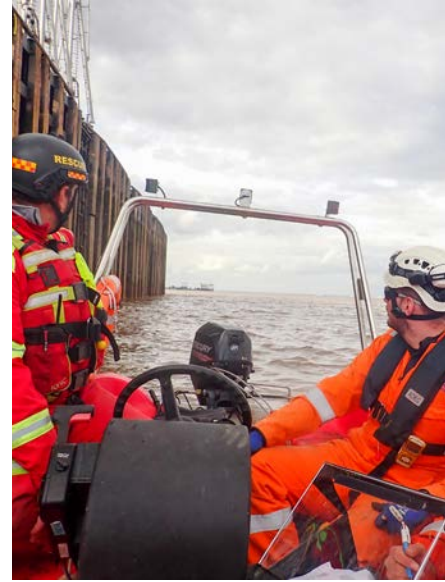
Additionally, detailed design modifications were formulated to accommodate alterations to the mooring horn runners, facilitating seamless integration with the pontoon. The design of the mooring horns is engineered to withstand the demanding conditions of marine operations while ensuring optimal functionality and longevity. Fixing details for new timber fenders were provided to protect the dolphins from accidental impact damage.

The ultimate objective of the project is to ensure the safety, reliability and compliance of the maritime assets with operational standards. The comprehensive designs addressing structural concerns and implementing necessary enhancements, the refurbished brows, dolphins, and pontoon will serve to benefit the stakeholders and users of Putney Pier, ensuring continued operational efficiency and safety for all.

Client
Livett's Ltd

Services
Civil Engineering
Maritime Engineering





Immingham Jetty Inspection

Frankham were appointed to carry out a structural inspection on a jetty on the River Humber.

The jetty site falls under the upper tier COMAH regulations and is used for the import and export of petrochemical bulk liquids.

The jetty head was 106m long x 13.5m wide with mooring dolphins upriver and downriver. The deck is formed from in-situ reinforced concrete and bears on to steel tubular piles to form an exposed jetty construction. The fendering system was made up of timber piles on the shoreward, riverward and downriver sides of the jetty head.

In advance of the inspection works the following activities were completed to aid the effectiveness of the time spent on-site:

- A desktop site reconnaissance visits via satellite imagery.
- Preparation of base drawings of the marine assets (based on as-built drawings provided by the client).
- Review of existing data, as built and previous inspection records.

The timings of inspections were targeted to maximise the amount of time spent at periods of low and high tides where required. This provided the best opportunity for our inspection engineers to identify accelerated low water corrosion (ALWC).

The inspection was carried out in October 2022 where a condition report with recommended remedial repairs was issued to the client.

Client

Associated Petroleum Terminals

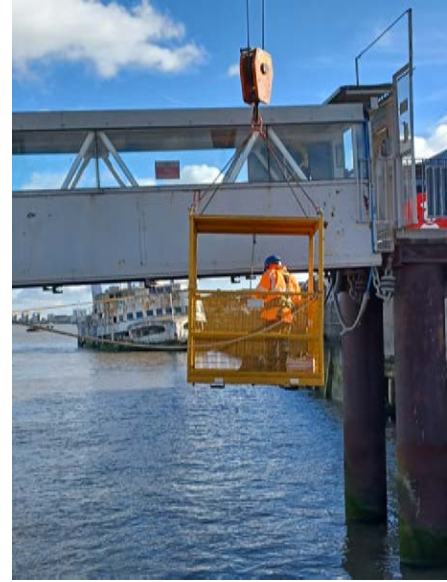
Services

Civil Engineering
Maritime Engineering

Value

£10m





Barrier Garden Pier Brow Assessment

Frankham were appointed to survey and to undertake a structural assessment of Barrier Garden Pier brow in Woolwich.

Barrier Garden Pier brow is just downstream of the iconic Thames Barrier. The objective of the project was to provide the Port of London Authority (PLA) with the brow's maximum capacity to allow for refurbishment works.

The brow is a 29m steel truss structure comprising main hollow sections and "I" beams. A system of horizontal and vertical bracings provides the restraint system of the structure. Glass, steel plates, and timber boards form the cladding system of the structure.

Some of the services provided by Frankham on this project included:

- A desktop review.
- Tactile and visual inspection of the structure using the PLA's flagship London Titan vessel and man rider.
- Ultrasonic Thickness Measurements (UTMs) to obtain thickness of elements composing the structure (in particular circular hollow sections).
- Structure modelling.
- A global structural capacity check ("I" sections, tubular chords, tubular bracing, etc.) with Eurocodes.
- Preparation of record drawings.

Frankham maintained open, clear and professional communication with PLA engineers throughout the works from survey to issue of deliverables using emails.

Client

Port of London Authority

Services

Civil Engineering
Maritime Engineering





Knauf Jetty Inspection

Frankham were appointed to prepare the design & tender package and to carry out the design of a maintenance platform for an existing jetty at Knauf's Sittingbourne facility.

Frankham prepared a complete tender package for this project, dealt with technical queries, analysed the tender returns and provided an informed recommendation to the client of which contractor to award the construction works to.

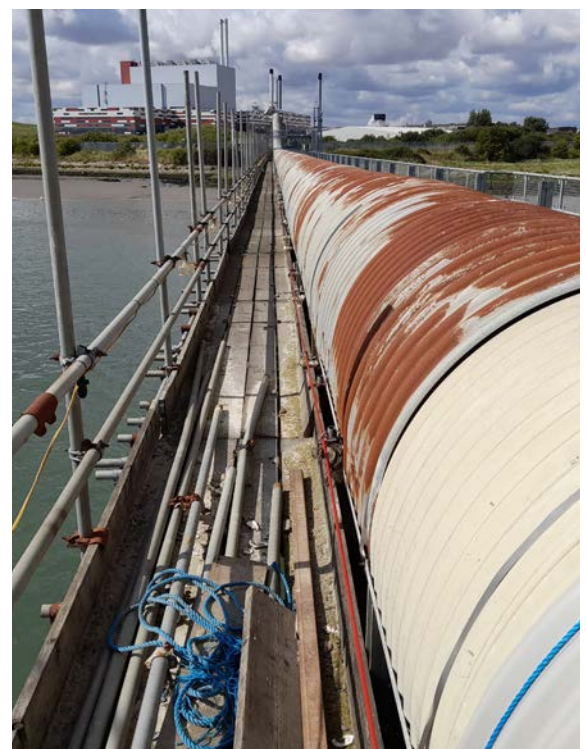
As part of the design process for the maintenance platform and access to the platform area, Frankham prepared a conceptual design of the platform. A structural 3D model was developed using FEM software to demonstrate the adequacy of the structural elements selected for the design. This helped the client to understand and visualise the outcome before detailed design.

Frankham prepared CAD drawings including the dimensions of the platform, the types of materials and the connection designs. We were also responsible for preparing the Designer's Risk Assessment (DRA).

Client
Knauf UK

Services
Civil Engineering
Maritime Engineering

Value
£39,950



Frankham Group Expertise



Frankham Group Structure



Steve Frankham MBE
Chairman



Richard Chitty
Group Managing Director

Frankham Consultancy Group

Frankham Projects

Lane and Frankham

Frankham Risk Management Services

Robson Frankham



Architecture
Led by Phil Wilson



Building Services Engineering
Led by Adam Watkins



Civil and Structural Engineering
Led by Gordon Lane



Infrastructure Engineering
Led by Ashkan Rohani



Surveying and Project Management
Led by Richard Carter



Planning and Development
Led by Oliver Morse



Area Measurement
Led by Andy Lane



Risk Management
Led by John Powell

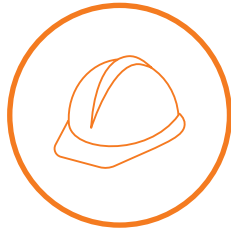


Fire Engineering
Led by Anthony Robson

FRANKHAM GROUP



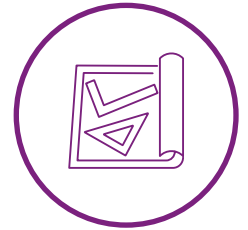
Surveying and
Project Management



Engineering



Compliance



Design and Planning

SURVEYING AND PROJECT MANAGEMENT

Area Measurement
Building Surveying
Clerk of Works
Employer's Agent
Party Wall
Project Management
Quantity Surveying

ENGINEERING

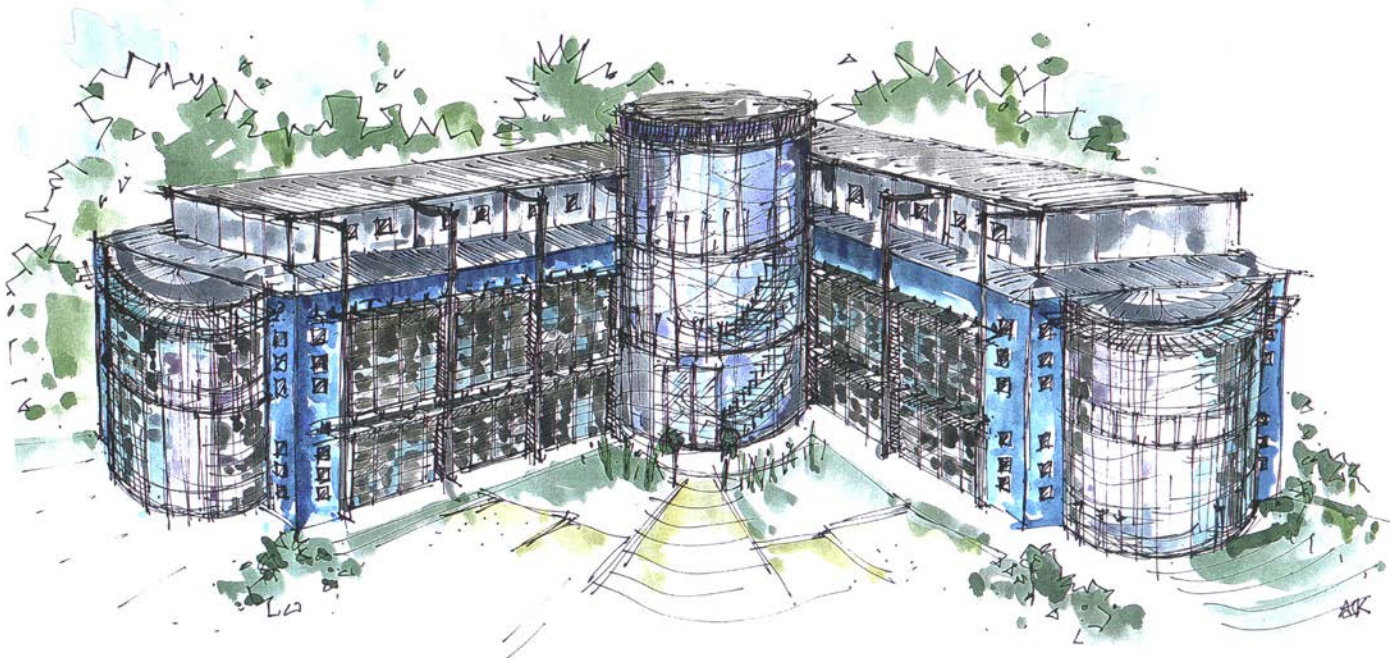
Building Services Engineering
Civil and Structural Engineering
Fire Engineering
Lift Engineering
Maritime Engineering
Rail Infrastructure Engineering
Structural Surveys and Small Works

COMPLIANCE

Asbestos Risk Management
CDM/Principal Designer
Building Safety Act
Fire Consultancy
Fire Risk Assessments
Gas & Electricity Management
Strategic Risk Management
Safety Management
Water Risk Management

DESIGN AND PLANNING

Architecture
Development Consultancy
Disposal Advice
Forensic Architecture
Site Acquisition
Town Planning





Our Vision

To become the leading privately-owned consultancy in the South of England, differentiating ourselves from the large corporates, being a best place to work and a leader in the market place in each of our disciplines/specialism.

Our Mission

Our mission is to provide exceptional and sustainable construction solutions in all disciplines, earning our place as the construction consultancy of choice. We are dedicated to bringing innovative ideas to life and delivering results that are both high-quality and cost-effective.

People are at the heart of everything we do, and we strive to create a culture of inclusiveness and belonging where all are welcome.



Our Values

Safety and Wellbeing

Prioritising health and safety above all, we are dedicated to safeguarding individuals' wellbeing and maintaining a balance between work and home life.

Respect and Integrity

We strive to embody professionalism, reliability, honesty, truthfulness, and accuracy in our actions, while simultaneously promoting an environment that respects, encourages, and values diverse perspectives and backgrounds.

People

We are committed to creating opportunities and career advancement, encouraging individuals to join and grow within our organisation, and providing support to the communities in which we operate.

Innovation

We position ourselves as thought leaders in our field by valuing continuous learning, bringing forth innovative ideas, and consistently seeking smarter approaches.

Impeccable Service

We are committed to delivering services at consistently high quality standards and continually seeking improvement. Our focus is on understanding and meeting our clients' needs and expectations.

Teamwork

Collaborating constructively and productively as a unified team, both internally at Frankham and externally, to achieve a common goal.



FRANKHAM

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