

Forest Town, Mansfield

Ongoing industry collaboration creates value on wastewater scheme

In October, Aarsleff Ground Engineering undertook a project local to our Nottinghamshire Head Office in Forest Town, Mansfield. Rock Civil Engineering are working to upgrade wastewater facilities in the village and Aarsleff were contracted to install a temporary sheet piled cofferdam to allow excavations to take place.

We worked in collaboration with MGF, who are market leaders in the design, manufacture and supply of modular and bespoke excavation support systems. They achieve this through technical excellence, 40 years of specialist manufacturing experience and an unfaltering commitment to providing seamless service delivery. MGF's in-house design, manufacturing and haulage service, coupled with their lifting and safety equipment, enables them to have full control and visibility from enquiry to delivery, providing a completely seamless service in the process.

In total, Aarsleff installed 246 sheet piles using a Movax in various lengths, ranging from 4.5 to 6 metres, over a total programme of two weeks. When we arrived on site, we recognised that the ground conditions were tougher than expected and moved

quickly to address the issue by pre-auguring to loosen the material. We then also drove the piles back using an air hammer. The decision and mobilisation of plant was quick and minimised potential delays for our client.

The solution installed was a cofferdam, which is a structure built to allow an enclosed area to be excavated and remain free from water. This excavation creates a dry working environment for the major work to proceed. At Mansfield, this will be the installation of attenuation tanks.

Cofferdams consist of a relatively impermeable wall built around the proposed excavation area. They are welded steel structures that are traditionally built with sheet piles, wales, and cross braces. Temporary hydraulic frames and struts are seen as being a viable reusable alternative to using walers and cross braces and are also quicker to install.



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At Mansfield, 5 200 series cross struts supplied by MGF were used to support installation of a full 254UC tank brace system. Due to the fact MGF's modular system is a reusable fleet hire option, the system also provided sustainability advantages to the client when compared with traditional welded waler systems. The fully modular system also resulted in a speedier installation compared to if a welded frame solution had been used.

The collaboration between Aarsleff and MGF has been ongoing for many years. The combination of MGF's innovative product design and Aarsleff's operational expertise means that we can offer value-added solutions that save our clients on time, cost, and associated emissions.

Speaking on the project, Zohaib Khan, Project Manager said "“We, together with MGF, have a shared vision of innovation and sustainability, which we strive to implement from the outset. In turn, this enables us to provide pioneering and cost effective solutions. The collaboration between everyone involved with the project ran smoothly and we are pleased to have offered a value- added solution to our clients once again.”"

Aarsleff Ground Engineering are a choice contractor for the design and delivery of ground engineering projects across the UK. With over 30 years of experience, we are experts in the delivery of operational excellence.



Data

246 sheet piles (4.5-6m)

Client

Rock Civil Engineering

Type of contract

Design and build contract

Construction period

October 2023

Contact

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