

## **Lower Otter Restoration Project**

**Client:** Kier Integrated Services for the Environment Agency

**Value:** Circa £368,000

**Duration:** 12 months

### **Issue**

As part of the Lower Otter Restoration Project, a new footbridge was required to improve access within the restored estuary landscape. To support the bridge structure, Suttle Projects was tasked with installing 20 bearing piles, each measuring 700mm in diameter and extending to depths of up to 20.5 metres using a rotary bored piling technique.

The project was located within the environmentally sensitive Lower Otter Estuary, on the outskirts of Budleigh Salterton in Devon. It required the careful consideration of methodology to minimise environmental impact while maintaining programme and budget requirements.

### **Solution**

Working within a protected environment demanded a piling methodology that minimised disruption to the surrounding habitat. Careful planning and equipment selection helped reduce the project's overall footprint while ensuring the piling works could be completed safely and efficiently within the sensitive setting.

To support the piling process, we utilised a crawler crane fitted with a crane-suspended vibratory attachment to install the pile casings. This innovative approach enabled the casings to be installed without the need for a larger piling rig, providing a practical and efficient solution tailored to the site's constraints.

By installing the casings separately using the crawler crane, we were able to deploy a lower-weight class rotary bored piling rig for the piling operations. This streamlined the installation process, improved site efficiency and reduced the complexity of the works, helping maintain productivity throughout the project.

Our selected methodology provided a proven and dependable solution for the challenging ground conditions and bridge loading requirements. Through careful planning and appropriate plant selection, we ensured the piles were installed accurately and to the required specification, providing a robust foundation for the new footbridge.

## **Outcome**

All 20 bearing piles were successfully installed to the required depth and specification, providing the foundations for the new footbridge within the Lower Otter Restoration Project.

By combining innovative plant solutions with efficient planning and environmentally conscious construction methods, we delivered a reliable and cost-effective piling solution. The approach reduced the client's temporary works requirements and associated costs while ensuring the project was completed safely and responsibly within a sensitive ecological environment.

This project demonstrates how our commitment to sustainability, creativity, productivity and reliability enables us to simplify complex engineering challenges and deliver value for our clients.

## **Photographs:**



