

Gull Wing marine construction well underway!



After a long period of planning and preparation, the first marine construction works started on 10th August when the first pile was installed into Lake Lothing. A pile is a cylinder type foundation inserted into the ground to support heavy loads.

There will be a series of different marine construction activities using a variety of specialist machinery and vessels over the next year or so. The first piles, which are currently being installed, are for the Dolphin Fenders that will protect the bridge against vessel impact. This is using a low vibration rotary push method because we are working very close to an underground tunnel. These dolphins comprise of 28 steel tubes that will be filled with stone and concrete. Those on the eastern side of the bridge are being installed first and are almost completed. The piling rig is located on a Jack Up Barge and is serviced by a crane barge (see our Crane Guide at [General Information – Gull Wing Lowestoft \(gullwingbridge.co.uk\)](http://gullwingbridge.co.uk) for more information).

The next stage will be further west where we will install the cofferdam piles in the central part of the channel. There will be two cofferdams, one for each concrete pier that will support the central span of the bridge. A cofferdam is a steel tube and sheet pile structure in the water that enables a dry working space to be created. These are installed using a vibrating hammer machine on the end of a crane. Once these are installed the water is pumped out and a rotary bored piling rig will work in the middle to install bored concrete piles, some 57m deep, that will support the two bridge piers in the water. The southern cofferdam will be constructed first, then the northern cofferdam. Temporary walkways will be installed onto the eastern dolphin piles to provide access to the cofferdams. After the cofferdams are completed the remaining 14 western dolphin piles will be installed using conventional vibrating hammer method.

Following this preparatory work, the construction of the two bridge piers will commence in late 2021