

West Bay Sea Wall Repairs

Client: Dorset Council

Value: Circa £200,000

Duration: 5 weeks

Issue:

Suttle Piling was appointed to install 50 metres of sheet piling to stabilise the harbour wall at West Bay. Working within a live harbour environment presented several challenges, including restricted access, the need to install the piles from the water, protecting the surrounding marine ecology, and maintaining the highest safety standards while operating alongside other harbour users.

Solution:

Drawing on our extensive marine construction experience, we developed a safe and efficient installation methodology tailored to the site conditions.

Using our Volvo EC220 excavator fitted with a Movax attachment, we installed 84 sheet piles from the water. To provide a stable working platform, we mobilised a JML60 Deck Cargo Barge; a shallow-draft, flat-bottomed vessel equipped with two 12-metre self-elevating spud legs for accurate positioning. The excavator was loaded onto the barge at the East Pier before being transported through the harbour to the work area.

To support the operation, we also deployed 16 pontoons, two material transport pontoons and a safety boat, ensuring the project ran efficiently while maintaining safe access and logistics throughout the works.

Environmental protection was a key priority. A bubble curtain was installed around the piling area to contain disturbed silt and minimise the impact on the harbour's marine environment.

Throughout the project, all operatives working on or near the water wore life jackets and coordinated every vessel movement with the Harbour Master, ensuring the works were carried out safely within the active harbour.

Outcome:

The harbour wall was successfully stabilised, with all sheet piling works completed ahead of programme and without incident. Through careful planning, specialist marine equipment and experienced operatives, Suttle Piling delivered a safe, efficient and environmentally responsible solution with minimal disruption to harbour operations.

Photographs:



Figure 1: A still taken from footage of the excavator boarding the cargo barge.



Figure 2: The cargo barge in place with the excavator carrying out the piling works



Figure 3: The Movax attachment pushing in the sheet piles



Figure 4: The completed sheet piling works which have then been backfilled with stones.