
PROJECT: BROOMHILL QUAY, AMBLE NORTHUMBERLAND

VALUE: £700k
ROLE: MAIN CONTRACTOR
START DATE: JANUARY 2013
COMPLETION: JUNE 2013

CLIENT: WARKWORTH HARBOUR
COMMISSION.

The project consisted of a new quay frontage retaining wall installed in order to repair a partial collapse to a previously installed sheet piled retaining wall.

The job consisted of varying length H-Piles driven in front of the existing quay face acting as king posts for low level sheet piles to act as a combi-wall and protect the toe from future under scour.

To retain the aesthetics of the adjacent quay bespoke pre-cast units were then installed between the king posts to form a smooth concrete face that matched the adjacent quay detail.

The anchorage installation detail was developed to utilise the existing anchor wall and ties to provide a cost-effective solution for the client and keep their costs down to maintain their limited budget for the scheme.



H-Pile / Sheet pile installation

Additionally, a new RC concrete quay slab was installed with new bollards, edgings, mooring rings and electric / water services. A new bespoke berthing arrangement for pleasure boats was also installed on a design build basis with new timber access steps to the East of the quay.

CHALLENGES

Works access onto a semi collapsed quay provided a challenge with all craneage having to be set back from the quay edge to ensure stabilisation integrity during the works.

The installation of the sheet piles to provide the toe protection was a unique challenge as their finished designed level was below water on even the lowest of spring tides. The required solution used a combination of underwater vibro and impact driving piling methods. There was also a great deal of underwater welding and steelwork installation to install a wailing beam at LAT level and associated underwater concreting works.

PROGRAMME

The project commenced in January 2013 and was completed in May 2013 within budget despite a challenging winter with extreme gales for around 6 weeks of the construction programme.



Completed Quay Wall