

TMS Maritime is a leading UK specialist in marine civil engineering, ancillary floating plant and diving services

Client: Cornwall County Council

Value: £1M

Project: Newquay North Quay Refurb

Duration: 24 Weeks

TMS Maritime were appointed the Design and Build restoration and refurbishment contract for works to Newquay Harbours North Pier. The North Pier is of mortared granite masonry construction built in the mid 19th century and is grade 2 listed.

The Pier extends from North Quay Road approximately 70m out into Newquay Harbour. The Quay / Pier is 16m wide and the pier height increases from 6.5m to 9.9m above adjacent beach level. The end of the Pier was encased with sheet piles and back filled with concrete in the 1950s, this encasement has been shown to be of poor structural integrity and in need of urgent repairs. A feasibility study identified large voids to the pier head within tidal range, as a result works were instructed to extend the life of the pier head for a further 30yrs.



The works were carried out within a Marine Mammal European Protected Species area of concern, as such piling works required specific mitigation measures to be in place. These measures would need to allow impact piling through a body of water in an area containing Harbour Porpoise, Grey Seals along with potentially other protected mammal species sensitive to sound waves.

TMS Maritime worked closely with Marine Management Organisation to secure a licence for the works in general, with change to legislation part way into the programme a further mitigation plan was required to secure English Natures approval of the piling works under European Legislation. TMS secured this approval in partnership with our Marine Biologist consultant Dr Victoria Todd. This meant implementing a specific Marine Mammal Mitigation Plan the detail of which meant – Exclusion zone, soft Start procedures, as well as having a Marine Mammal Observer stationed as look out during works.

Piling works were partially intertidal with the requirement of a minimum embedment depth of 1.7m into rock, once pile line was complete closure shutters were installed along with temporary bracing to hold the structure during concrete back fill.

Due to access restrictions concrete would need to be pumped to the working face, this involved setup in adjacent narrow road, then pumping 260m³ to the pier head. The operation was timed to complete just ahead of an incoming storm which would have destroyed the works without placement and curing of concrete in advance.

Once the piling and back fill was complete a steel reinforced capping beam was installed which again required concrete to be pumped 150m from adjacent road access.

Finally new concrete steps were installed along with plaswood fendering system to aid pleasure and work boat access to the North Quay.