

Alexandra Parade Revetment Project, Peterhead

Contract Value:	£1.4m
Consulting Engineer:	RPS
Engineer's Representative:	Sinead Henry (07717 715108)
Client:	McLaughlin & Harvey
Client's Representative:	John Mariner (07789 933547)
Works completed:	Completed Nov. 2021

Categories:- Coastal Defences, Marine Civil Engineering, General Civil Engineering.

Works Comprised:

Ashleigh Contracts were engaged by Main Contractor McLaughlin & Harvey as specialist breakwater and rockworks subcontractor in early 2021 to undertake the construction of an xBloc revetment along the north side of Alexandra Parade in Peterhead to provide urgent coastal protection to harbour assets and buildings for Peterhead Port Authority.

Ashleigh's involvement comprised:-

- Timely offloading and stockpiling 25,000T of Rock Armour imported from Norway – with the armour ranging in size from 1-3T, 10T, 15-18T and 25T.
- Haulage, offloading and stockpiling of approx. 300No 20T precast XBloc units from a casting yard to onsite stockpiles
- Demolition and removal of existing sea defences and historic harbour structures to facilitate line and level of the proposed revetment
- Construction of new widened sea defence Revetment whilst working alongside and on the seaward face of an existing historic harbour wall and associated masonry revetment.
- Underwater rock breaking of 135 linear meters of toe trench in which the precast XBloc sea defence units were to be found
- Placement of 1-3T of infill to for the core profile of the revetment
- Placement and construction of 1-3T Armour underlayer to the seaward face of the revetment suitable as the founding layer to which XBloc units are placed
- Placement of 20T precast xBloc armour units as the primary revetment protection

In addition to the full use of Prolec PCX 3D GPS machine control on all lead-machines constructing the works, Ashleigh Contracts also deployed an Echoscope 3D sonar attached to the CAT345 Long Reach required for any underwater placement of the 20T XBloc using a specialist 200T heavy-lift excavator, a Hitachi EX1200XXL. The live sonar imagery from the Echoscope to be shared by wireless link between the two machines during the placement of each xBloc unit below water to achieve the best possible interlock. An in-house developed hydraulic rotating and remote-sling release system was also used on the EX1200XXL in the placement of Accropodes to negate the use of divers and reduce the requirement for slinger banksmen at the point of release.

ASHLEIGH CONTRACTS

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Photo – Offloading 24,000T of mixed Armour Grades 1T to 25T from a Barge

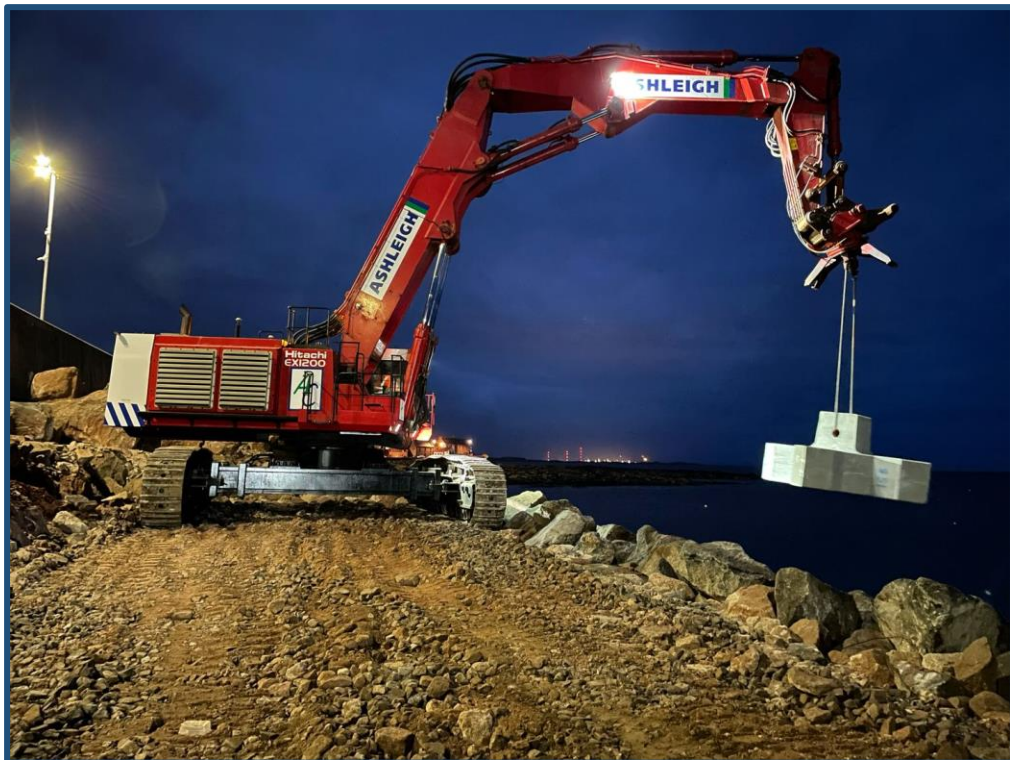


Photo – Placing 20T Precast concrete XBloc Base Units using 200T excavator

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