

BAE Govan – New Dock Bund & Piling Platform, Glasgow

Contract Value:	£1.6m
Consulting Engineer:	GDG Geo Solutions
Engineer's Representative:	Diarmuid O'Loan (028 9091 8846)
Client:	McLaughlin & Harvey
Client's Representative:	John Mariner (07789 933547)
Works completed:	Phase 1 April 2023 & Phase 2 Commencing November 2023

Categories:- Marine Civil Engineering, General Civil Engineering.

Works Comprised:

Ashleigh Contracts were engaged by Main Contractor McLaughlin & Harvey as specialist marine subcontractor in late 2022 to undertake the initial stockpiling and subsequent haulage and placement of stone into a new Bund constructed across the entrance to a Dock at BAE Govan. Once infilling of the Dock Basin using the reclamation of dredged material from the Clyde, Ashleigh then placed a blanket of stone over the compacted infilled area to form a Piling platform. Ashleigh then remobilised to site from November 2023 to remove the Dock Bund seaward of a new Quay Wall.

Ashleigh's involvement comprised:-

- Taking receipt of and stockpiling approx. 135,000T of Types 1, 1C & 6 – the majority of which was transported by sea to Glasgow from Glensanda Quarry, west coast Scotland.
- Placement of a 2m deep blanket of stone across the footprint of the new 90m long Dock Bund using a split-hopper barge bottom-dumping in water depths from -4m CD to -7m CD. Placement of bottom-dumped material was controlled using a GPS locating system with a planned grid-layout over two layers for the bottom-dumping operations to ensure a min coverage of 2m depth over the soft underlying river-bed silt.
- Placement of the main Core of the new Dock bund using long reach excavators and a light dozer to advance the material over the pre-placed riverbed stone blanket. Significant settlement of the core material occurred into the soft riverbed and placement plant was required to carefully advance the core by advancing the material with a shallow grade leading edge and planning the works around minimising plant movements on the Bund at low tide.
- Settlement monitors established along the bund.

Once the Dock Bund was constructed, the Dock Area was infilled by Boskalis using sand dredged from the River Clyde and the infill area of Vibro-Compacted by Powerbetter Soil Solutions – following which, Ashleigh undertook:-

- Placement of a 1m deep stone layer across the entire Dock Infill area @ 18,000m² to for a Piling Platform for the Main Contractor to commence the installation of piles as the substructure to the proposed new BAE Indoor Shipbuilding Hall. This first phase of works was completed in April 2023.
- Ashleigh returned to site from November 2023 to remove the seaward portion of the Dock Bund in front of the new Quay Wall. Approx. 19,000m³ of the Bund material is to be recovered down to original bed levels of -7m CD and the material recovered to shore using both shore-based and floating marine plant.

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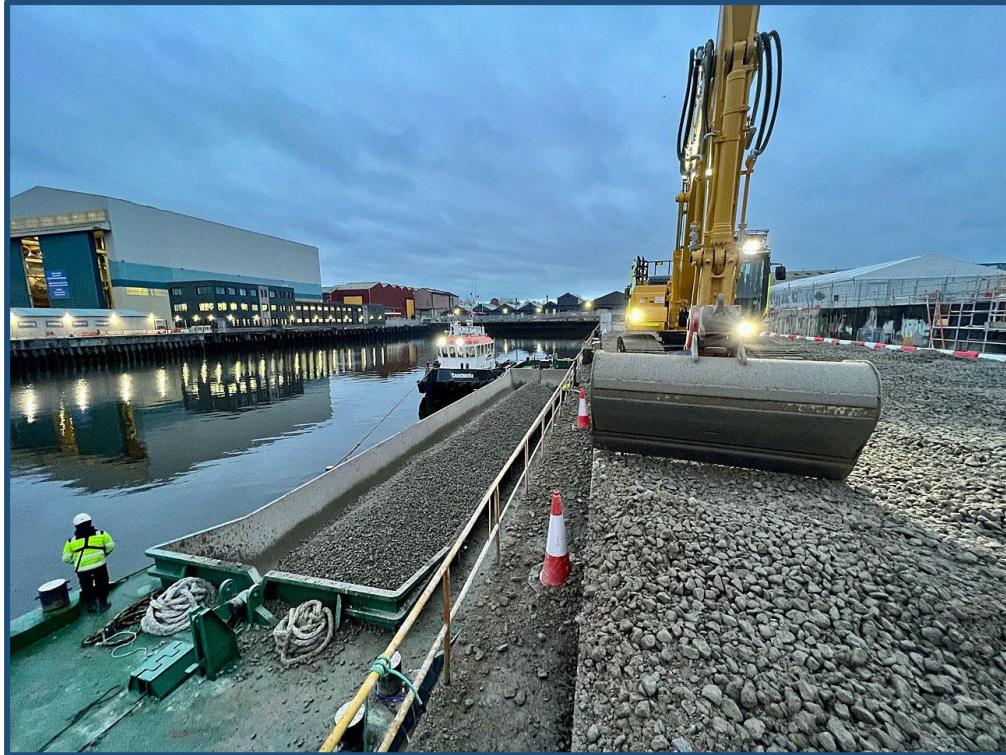


Photo – Loading Split Hopper Barge for Stone Blanket Filling over footprint of new Dock Bund

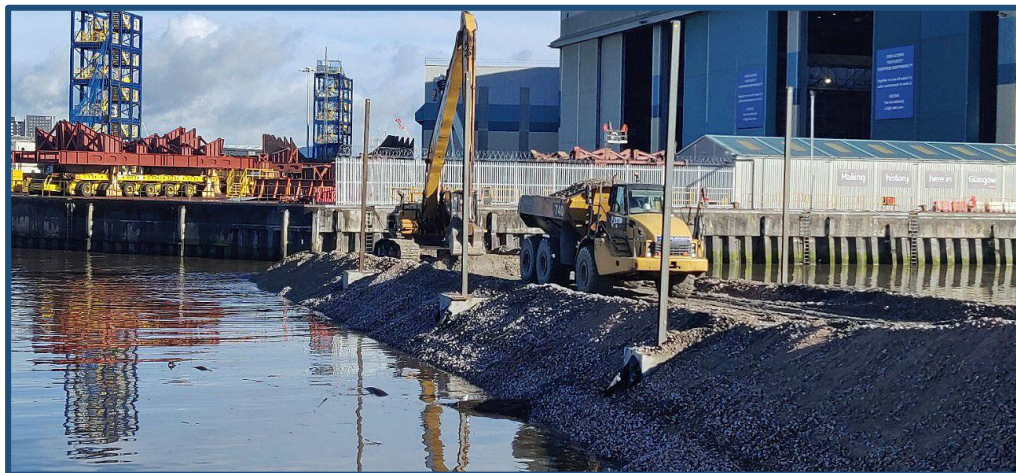


Photo – Dock Bund nearing completion and showing settlement Monitors established along each side of the Bund prior to Infilling of the Dock Basin with dredged sands

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