

BOSKALIS WESTMINSTER: SKILLS, RESOURCES, EXPERIENCE

Boskalis provides clients with tailored, project-specific solutions for dredging infill and land reclamation services, as illustrated by the following project summary.

PROJECT DESCRIPTION

A contract to infill Wellington Dock, providing additional land for the extension of the adjacent United Utilities wastewater treatment plant, with approximately 250,000m³ of sand from the Westminster Gravels licensed winning area 457. The previous contract, to remove the silt from the dock, was also undertaken by Westminster Dredging (now Boskalis Westminster).

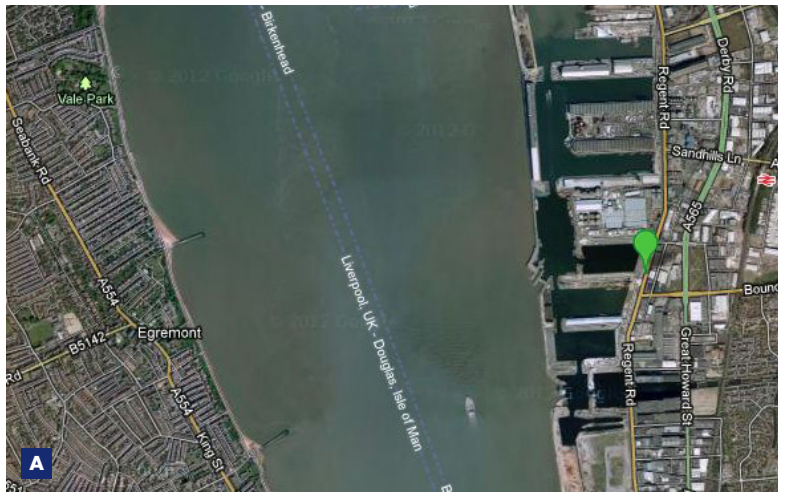
This challenging project demonstrates Boskalis Westminster's ability to manage works on the Mersey, through long standing experience and the interfaces between marine based activities and land based construction processes.

For this contract, previous knowledge from completing similar works at Le Harve was adopted with respect to fabricating bespoke shore connection frames to link the floating line and sinker line. The sinker line was installed across Sandon Half Tide Dock to enable passage for vessels into Bramley Moore Dock. The trailing suction hopper dredger, Shoreway, dredged the material from Area 457 then transported it to the fill site at Wellington Dock.

Representative samples of the material were taken from each load and tested both on board and ashore. The on board testing of the material, using a Haver 3-2 CPA unit, proved very successful in ensuring that the selected dredge area provided compliant material throughout the project and eliminated the need to prospect or relocate to other

FEATURES

Project Name	Wellington Dock Infill
Client	United Utilities PLC
Contractor	Westminster Dredging Company Ltd subcontractor for Galliford Try/Costain/Atkins JV
Location	Liverpool, United Kingdom
Execution period	Mar - May 2012



- A Location Map
- B Sinker Line Preparation
- C Sinker Line Preparation
- D Sinker Line Launch



areas. By continual monitoring and review of the filling process, particularly with respect to grading and layer thickness, the structural capability was achieved.

Prior to the arrival at the fill point, the water level within Wellington Dock was managed in order to accommodate the transport water from the Shoreway. This transport water was managed by means of a van Heck pump, pumping into Sandon Half Tide Dock, complying with the conditions of both a water abstraction licence and water discharge licence.

On arrival, the Shoreway connected to the 300m floating pipeline and commenced pumping the material into Wellington Dock. The material was pumped through an 800mm diameter pipeline comprising 480m of floating line, 120m of steel sinker line and 150m of steel shore line to the spreader pontoon Jacolien. The Jacolien spread the material over Wellington Dock in varying layers to a thickness of approximately 6.0m above pre-infill. The spreading was controlled by the crew of the Jacolien using production information from the Shoreway via a telemetric link combined with DGPS positioning system. The Jacolien was replaced after two weeks by a conventional land based filling method to complete the fill.

The utilisation of the most appropriate vessels from the Boskalis fleet and access to the aggregate winning area, combined with our experienced local personnel and long term relationships, brought real value and efficiency to the project from our knowledge of operational issues on the Mersey.



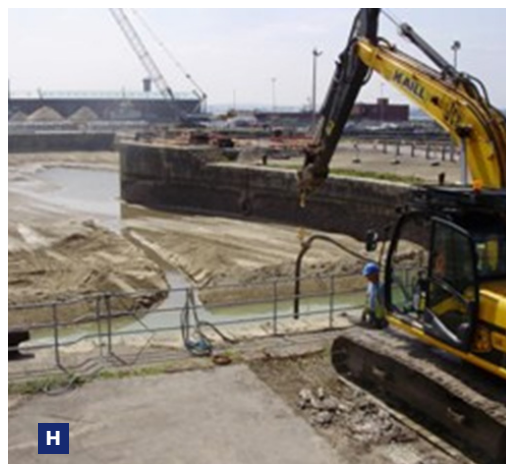
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F



G



H

- E** Sinker Line Installation
- F** Spreading with Jacolien
- G** Land Line Installation
- H** Finished Infill

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