



## **Stena Loch Ryan Port Development, Scotland**

Contract Value: £1,500,000  
Consulting Engineer: RPS  
Engineer's Representative: Adam Holland (028 9066 7914)  
Client: McLaughlin & Harvey Ltd  
Client's Representative: John Mariner (028 9034 2777)  
Works completed: August 2011

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

McLaughlin & Harvey constructed a new £40million Stena Loch Ryan Port Development near Cairnryan in south-west Scotland. The new Port facility was completed in October 2011 in preparation for the introduction of two new Stena Ro Ro vessels, the Superfast VII and VIII for the scheduled sailings between Belfast and Cairnryan . As part of this new development, Ashleigh Contracts constructed approx. 900m of new Revetments which protect the entire length of the new port and also carried out dredging and seabed scour protection works associated with each of the two new berths in the harbour facility.

### *Works Comprised:*

- The construction of approx. 900m of coastal protection Revetments associated with the reclamation of new ground and raising of existing levels to create the new Port Development site.
- Formation of the Revetments comprised infilling processed material from the existing site placed on geotextile to form a core bund along the full length of the site to allow for the retention of reclamation material comprising mainly dredged sands & gravels.
- The Revetments comprised seaward slopes varying between 1:1.5 and 1:3 protected with approx. 90,000T of primary Rock Armour graded in 1T to 3T or 2T to 4T zones depending on the degree of exposure of the slopes.
- The two main Revetments comprised a South Revetment of approx. 700m length south of the New Jetty and a North Revetment of approx. 200m in length north of the Main Jetty. Each Revetment required the construction of a Roundhead constructed down to the dredge level of -8.5m CD – with the South Revetment Roundhead being constructed at a slope of 1:3 below the new Linkspan for the Ro Ro Berth. The slope length of almost 30m in this area required the 2T to 4T slope to be constructed from a spudleg Barge as the majority of the slope required to be built below low tide level.
- Ashleigh Contracts also undertook dredging of approx. 25,000m<sup>3</sup> of material for the toe detail of the Revetment Roundheads and for the scour protection areas extending to approx. 6,250m<sup>2</sup> across the inner berth areas for the main Ro Ro Berth and Layby berth. Dredge material where suitable for reclamation material was brought ashore, but approx. 13,000m<sup>3</sup> of material was loaded onto split-hopper Barges for disposal at sea.
- Scour protection of the two berths required dredging down to -10.2m CD before infilling the areas with 1m depth of Underlayer and a single layer of 0.5T to 1T Armour. All Underlayer and Armour was placed using a 25m long reach excavator (75T) working from our spudleg Barge.



*Excavation of Toe for North Revetment*



*Construction of 2T to 4T North Revetment.*



*Geotextile to core of South Revetment*



*Scour Protection placed from spudleg barge.*



**ASHLEIGH CONTRACTS**

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