



Greystones Harbour Development, Co. Wicklow

Own Contract Value: €3.5m (Overall Contract Value €45 million)
Consulting Engineer: Arup Consulting Engineers
Engineer's Representative: Mr Steve McCormack (c/o 00353 1287 0927)
Clients: Sisk-Lagan Joint Venture
Client's Representative: John Cunningham (Lagan – 07767 393307)
Seamus Sorohan (Sisk – 00353 866 067281)
Contract Period: July 2009 to February 2011

Scope of the Works:

The Greystones Harbour redevelopment is one of the largest and most challenging civil engineering contracts undertaken in Ireland and is part of an overall €300m regeneration of the foreshore. Ashleigh Contracts carried out the following areas of works on this prestigious contract:-

- Placement of approx. 60,000T of 3T to 6T Rock Armour forming the core of the revetment protection of the new 300m long North and 150m long South Breakwaters. The 3T to 6T armour core was placed working tidally from land based plant on the seaward face of the stacks of precast concrete blocks forming the heart of each Breakwater structure. The slope had to be prepared in advance of the formation of a Toe mound of 3T to 6T Armour in up to 8m depth of water – which was constructed using a 75T (25m) long reach excavator working tidally from the seaward face of the new Breakwaters.
- Placement of approx. 3,500 No 14T precast concrete Antifer Units placed in a double layer on the rock armour core of the North and South Breakwaters. These units were placed using an 85T Excavator fitted with a specially fabricated full-slew hydraulic grab placing units against the Toe mound and on the main slopes forming the primary protection to the new Breakwaters.
- Construction of an 80m North Groyne comprising a core of 1T to 3T armour with seaward protection provided by 19,000T of 6T to 10T rock armour.
- Construction of the Marina Quay Revetment formed from 50,000T of core material with slope protection within the proposed marine provided by 1T to 3T Armour
- Dredging works and final trimming of the main harbour dredge areas carried out from both tidal land based Long Reach excavators and from our modular spudleg pontoon Barge.
- Coastal defence works associated with rock armoured beach protection areas to the north of the main Harbour.
- Placement of 3T to 6T Rock Armour as scour protection around the roundheads of the two main breakwaters – placed using our own spudleg Barge and 75T long reach excavator (25m reach capability).
- Infilling and compaction of Reclamation areas with approx. 185,000m³ of dredge material and sand retrieved from on-site borrow pits. This included the capping of Reclamation Areas with approx. 100,000m³ with clay material which was treated with lime stabilisation for future development lands.

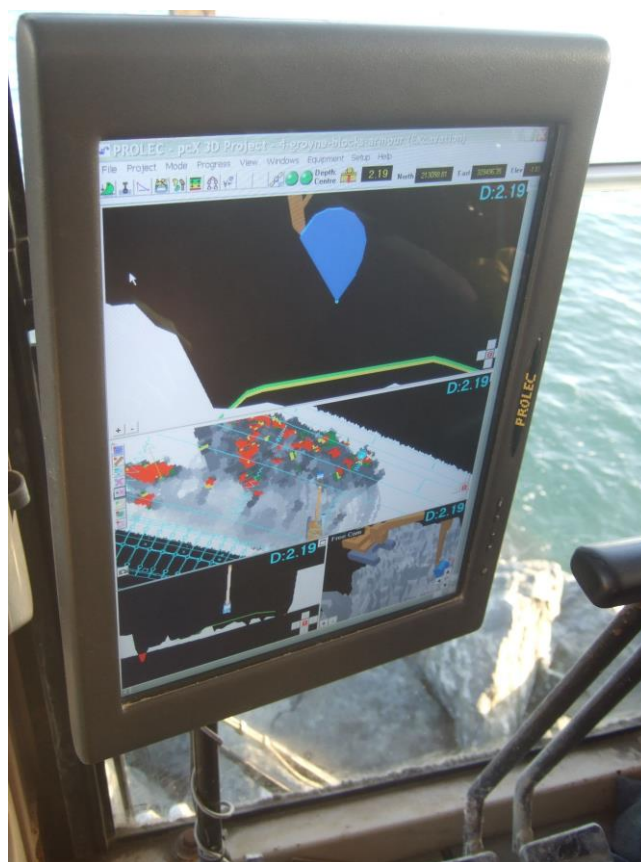
Some of the company's most significant heavy-plant resources were utilised on this contract. In total fourteen items of plant served the above sea defence works with four of the specialist long reach excavators working under the guidance of some of the most sophisticated Prolec 3D GPS machine control systems.

ASHLEIGH CONTRACTS

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Views of revetment preparation of seaward face of the Breakwater Quay Walls and placement of 14T Antifer Units



View of Prolec PCX 3D Monitor in the cab of the excavator indicating the underwater design profiles along with progress mapping

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QPS3833 Jim Quinn Photography 0871234546

Aerial Views of the Harbour Development – Ashleigh Contracts undertook all the coastal protection works protecting the new Quay Walls, Revetments and Foreshore including the formation of the Reclamation areas for future development.



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