



ACEI Design Excellence Awards 2016 Nomination Form

Category (1) Structures Project
Category (2) Innovation Project (all disciplines)
Category (3) Overseas Project (all disciplines)

Company Details

Contact Name: Andrew Mc Dermott
Company: O'Connor Sutton Cronin
Address: Unit 39E, Briarhill Business Park, Briarhill, Galway
Tel: 091-771360 Email: galway@ocsc.ie

Categories/Groups:

Project Category: Structures ☒ Innovation ☐ Overseas ☐

Project Group:

Small project (under €2.5m) ☐ Medium project (€2.5m - €10m) ☒ Large project (over €10m) ☐

Project:

Name of Project: Cape Clear Harbour Storm Gates & Slipway
Location: Cork
Commencement date: January 2014 Completion Date: February 2015

Client: Department of Agriculture, Food and the Marine

Contact: 021 4851400

Design Team:

Architect None

Contact N/A

Contractor L& M Keating

Contact Richard Browne- richard.browne@lmkeating.ie Tel: +353 86 606 6835

Authorisation to contact above: Yes ☒ No ☐

Brief outline of project:

Please see attached document

Statement as to why this project might be considered an award winning project:
(Max 500 words)



Entries should highlight where possible the particular influence or benefit the project engineering design has on society.

Please confirm that:

- (a) The supplied text may be used in any marketing material issued in connection with the awards
- (b) Agreement has been received from the client and other stakeholders that the project can be inspected by the adjudicator and provide contact details above for the person to be contacted in this regard.

Signed: Andrew Mc Dermott

Entry details:

Please send completed entry forms in **PDF format** along with supporting photos/images in **JPEG format**, by post or email to: info@acei.ie

If sending by post please save onto a CD and send to:

ACEI Design Excellence Awards,
46 Merrion Square,
Dublin 2,
Ireland.

Note: Closing date for receipt of nomination forms: 17:00, Friday 18th December 2015

Enquiries: ACEI office info@acei.ie 01 6425588

ACEI Design Excellence Awards 2016 Structures Project of the Year

Cape Clear Harbour Storm Gates & Slipway

Overview

We were engaged by L & M Keating to assist in looking at the feasibility of providing a precast concrete lockgate structure in lieu of the employers design proposal to provide an institute concrete solution. There were a number of advantages in providing a precast concrete solution that includes improved health and safety during construction, Improved quality control for reinforce concrete works for improved quality control of both materials and fabrication as these works were carried out in dry dock in Cork harbor rather than constructing the works on a remote island

General Description

OCSC carried out a design & build project in association with LM Keating Civil Engineering Contractors for a new storm gate, pier extension and associated works to be constructed on Cape Clear Island located off the SW coast of Ireland.

As part of a marine project on Cape Clear Island, O'Connor Sutton Cronin designed a precast concrete storm gate system weighing 1000t which was precast in dry dock and recently floated and towed by tug approximately 100km to Cape Clear off West Cork. Design and construction of hydraulic storm surge gates (12x8m high) including remodelling of 2 piers, dredging of harbour entrance and installation of 70m slipway on remote, exposed island.

The design involved the precasting of the main lock chamber comprising 600mm deep RC base with 500mm thick RC walls. OCSC designed the system to be floated from Cork Harbour to Cape Clear Island where the RC lock chamber and hydraulically operated steel lock gates were positioned and sunk. The chamber was tied to the bedrock using tension piles.

OCSC carried out a Finite Element Analysis for the design of the steel gate structure measuring 14m wide x 8m in height for wave impact loading. Ancillary items included precast concrete quay retaining walls, floatation calculations, temporary stop log beams and steel plate end walls, hydraulic ram mounts and all associated works. OCSC provided advice on floatation depth of the main chamber and requirements for localised dredging of the harbour entrance and installation of 70m slipway on this remote exposed island.

A full set of engineering calculations were submitted for approval to the clients engineer for all structural elements of the project.

Start Date:	Jan 2014
Completion Date:	Feb 2015
Client	Department of Agriculture, Food and the Marine
Contractor:	L&M Keating
Services Provided:	Civil and Structural Engineers
Director:	Andrew McDermott





