

The Samuel Beckett Bridge

A Liffey Landmark Symbolising Regeneration In Dublin's Docklands

€40m ∕ Project value May 2007 / The build commenced November 2009 / The build was completed

The Samuel Beckett Bridge is a €40m signature structure acting as a maritime gateway for Dublin's Docklands. With inspiration for its design reflecting the national emblem of Ireland, the harp, and named after one of the island's most preeminent writers, Samuel Beckett, GRAHAM and our Joint Venture Partner Hollandia, converted world-renowned artist and architect Santiago Calatrava's vision into a stunning reality, on time and within budget.

The Brief

Blending aesthetics with functionality, the construction of the asymmetric bridge was part of an overall plan to remove through traffic from Dublin City Centre and simultaneously facilitate the regeneration of the North and South Docklands. Accommodation of maritime traffic was also a prerequisite, and was achieved through an innovative design centred on the cable stay bridge's capacity to rotate through 90 degrees.



"The Samuel Beckett Bridge will improve traffic circulation, public transport and the pedestrian environment in the city centre"

Lord Mayor of Dublin Emer Costello

"I would like to thank the GRAHAM personnel associated with the construction. GRAHAM, in a Joint Venture with Hollandia, completed this project with exceptional professionalism, ahead of time and to budget. A client could not ask for a better team"

Michael Philips Director of Traffic/City Engineer for Dublin City Council who also scored GRAHAM in the "Strongly Agree" category for each question

The Challenges

The 2500 tonne super structure necessitated our project team to creatively navigate around numerous complex challenges throughout the 30-month design and construction phase process. The transportation of the cable stay bridge from its assembly point in Rotterdam to Dublin, some 628 miles over 8 days, was a notable logistical obstacle overcome. Switching the river pier from steel to concrete and reducing the pile cap depth represent a mere sample of the dynamism, and major value engineering solutions, our team implemented on the project, resulting in €1.7m of savings over the 60-year operational maintenance costs.

GRAHAM's added value solution

Now a feature bridge, epitomising modern Dublin, and voted 'Engineering Project of the Year' in the Engineers Ireland Excellence Awards, its early inception began with the construction of reinforced concrete abutments of each quay wall. Fabricated offsite and transported fully assembled by barge, the superstructure was then counter ballasted on site in the form of heavy weight concrete before being mounted on the support pier. Once positioned accordingly, the final tuning ballast was installed and the cable-stays tensioned so that the superstructure, now weighing 5700 tonnes, was accurately balanced and subsequently rotated into its closed position by our expert team. Lasting impacts emanating from this project, for the Council, commuters and pedestrians alike, include improvements to traffic circulation and public transport while acting as a catalyst for future regeneration.

Outputs & Benefits

Cost Saving Efficiencies: €1.7m savings to maintenance costs over the 60-year operation

Award Winning: Winner of the 2010 Engineering Project of the Year in Engineers Ireland competition, the Dutch Steelwork Award and the BCI Awards Highly Commended

Flexibility in Design: Opening spans facilitating the continued movement of shipping

Innovation in Construction: Changing the river pier from steel to concrete thereby enhancing the durability of the pier in the marine environment and providing significant long-term maintenance benefits.

Reduces Congestion: The Bridge provides an important pedestrian and cycle crossing facility, accommodates bus priority and improves traffic circulation





For more information on how we're delivering lasting impact:

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