Pont y Werin, Cardiff Bay





Client	Balfour Beatty for City and County of Cardiff
Project Description	Pont y Werin is a new pedestrian and cycleway bridge spanning the River Ely close to Cardiff Bay. The four spans over the river include a bascule lifting leaf over the navigation channel. The structure, which typically has span lengths of 30m, is of steel box girder construction supported on reinforced concrete piers. The piers were constructed using precast concrete shell elements supported on tubular steel piles and were designed to sustain the effects of barge collision.
Cass Hayward Role(s)	 Tender Design for D&C Tender Assistance with Planning Application Detailed Design for Construction Temporary Works Design
Project Statistics	 Project Value £3.4m Completed July 2010 Bridge is 125m long and is, at its highest, 9m above water level Bridge achieves unlimited headroom over a 20m wide waterway opening at an attitude of 75° The navigation span is 31.3m
Special Features	 Single lifting leaf with machinery at one end avoiding difficulties with locking devices common to twin leaf bridges. Modern mobile phone technology adapted to permit remote operation of the bridge from a remote control centre with a visual link provided by CCTV. Special "Cardiff Bay"- style parapets feature convex steel standards, hardwood handrails and horizontal infill rails using tensioned stainless steel wires and tubular steel with embedded lighting. The foundations to the river piers were constructed using precast concrete shell soffit and wall units to avoid use of cofferdams & disturbance to the river regime.