

Cody Dock Rolling Bridge: infrastructure and place

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Abstract

The Cody Dock Rolling bridge is a new steel bridge over a dock entrance near the River Lea in London. Spanning seven metres between existing dock walls, it allows the passage of vessels into the dock by rolling along a track such that the deck turns upside down and is lifted clear of the navigation envelope. The bridge is carefully counterweighted so that the centre of gravity is approximately level, allowing the 13.2-ton bridge to roll using only a hand cranked winch. Despite the simplicity of this movement, the design process and fabrication revealed complex and unique engineering challenges arising from combining an adaptive design of a moving bridge with high environmental aspirations and a limited budget.

Keywords: Footbridge, moving bridge, durability and longevity, low-maintenance, weight and material efficiency, human-powered, replaceable components, low-impact, Victorian simplicity, local team.

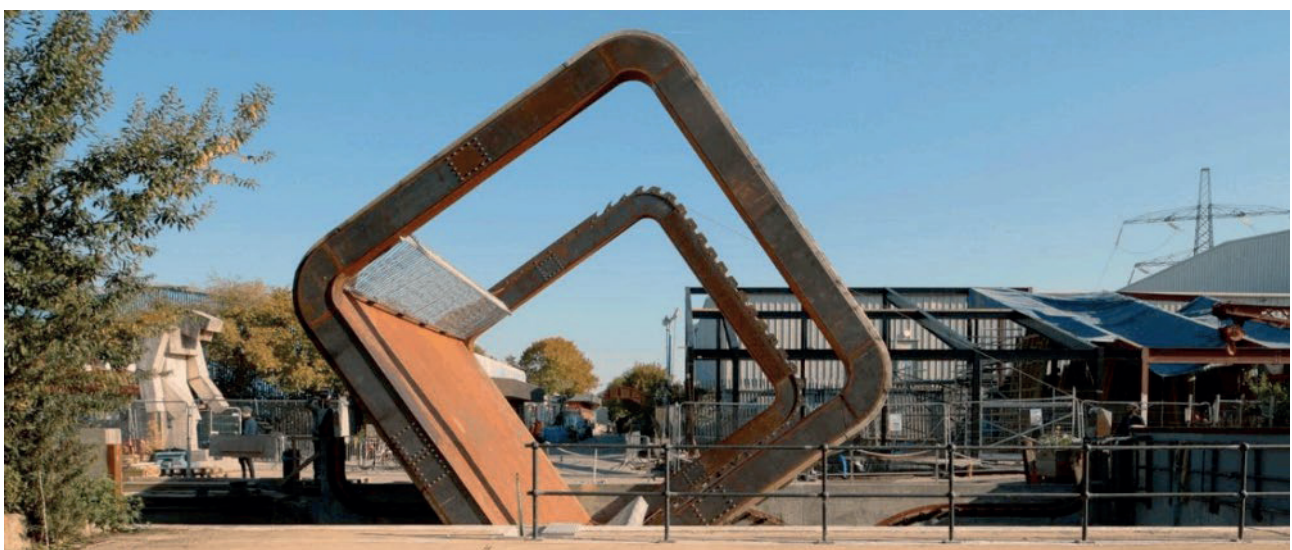


Figure 1. View of the bridge in motion from the south-west bank. Photo credit: Jim Stephenson