

# SOMERS TOWN BRIDGE

## A MODERN FOOTBRIDGE FOR A HERITAGE SETTING

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### Summary

The Somers Town Bridge crosses the Regents Canal in central London and was opened in 2017. It is a bridge of extreme simplicity - almost impossibly slender – but meeting the structural demands with the very minimum of materials.

Designed for cyclists and pedestrians to cross from Camley Street into King's Cross Development; a landmark redevelopment project by the developer client, Argent; the bridge spans 38m and is only 1100mm deep at mid-span and 400mm deep at the ends. In keeping with the Victorian heritage of the area, the bridge is unadorned and streamlined, focusing attention on extremely detailed and precise craftsmanship and high-quality materials.

With such a slender deck form, this steel through-girder bridge would normally be sensitive to pedestrian induced vibrations, but for the inclusion of 3 sets of tuned mass dampers at mid-span that are hidden by a cover plate that provides the bridge identification number – 34B.

The paper discusses how the user experience has been fundamental to the development of the bridge form. The team wanted people to linger on the bridge to admire the views along the canal. This was only possible with an edge girder limited to the viewing height of most people, but this then had the knock-on consequences for the pedestrian dynamics, which are discussed in detail in the paper.

The overall conclusion made was that truly visually successful projects work by a collaboration between client, architect, engineers, contractors and fabricators.



Figure 1 – bridge viewed from the north

**Keywords:** footbridge; dynamics; tuned mass dampers, heritage, steel.

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