

# Tradeston Bridge

**Client :**  
Glasgow City Council

**Designer :**  
Halcrow

**Location :**  
Glasgow

**Date :**  
2007 - 2009



## The project

Tradeston Bridge provides a new pedestrian and cycle route crossing over the river Clyde and links the redeveloping area of Tradeston with the International Financial Services District of the City Centre. The bridge comprises a three span, 106m long structure with a 16m central navigational span.

The new bridge was built on piled foundations with a concrete substructure. The fin-back superstructure is formed entirely in steel and follows a gentle S shaped profile with a wide deck designed to accommodate both pedestrians and cyclists.

## Designing for an easier build

The constraints of the city centre location, combined with a desire to mitigate safety and environmental risks, led to the adoption of a modular build approach working from floating plant. Prefabrication of major elements offsite supported this approach. Examples included preparing piles offsite, precasting the concrete pier shells on the quayside and applying all painting and anti skid surfacing before delivering the steelwork to site. The result was a faster and safer build with the

superstructure being erected in 3 weeks. All major components, including piles and steel deck sections, were transported to site by river

## Designing for the environment

Prefabricating major components off site provided a shorter construction period, reducing the risk of pollution to the river and disturbance to neighbours. The choice of a driven, tubular steel piled foundation removed the need for cofferdams, which would have disturbed the river and its inhabitants.

## Traffic management

All bridge elements were sized to allow transportation of the larger units by river to the site on a "just in time" basis. This made best use of the limited space available and minimised disturbance to traffic around the site.