

Enabling connectivity to a bridge to a world-renowned aviation museum for visitors to safely access

Bridging Case Study



IWM Duxford Access Bridge, UK

m|a|b|e|y| bridge

Customer: Imperial War Museums (IWM) | **Solution:** Compact 200™

The Challenge

IWM Duxford is a former RAF fighter station dating back to WW1, with a long and distinguished history, particularly famous for its role in the Battle of Britain in 1940. Today it is one of the world's leading and most popular aviation museums, housing some 200 aircraft ranging from 'pioneering' biplanes to modern day jets.

The original access bridge, installed in 1984 and used by vehicles and pedestrians to cross the main A505 trunk road in Duxford, needed replacing and this prompted the museum to approach Mabey Bridge. The central span of the bridge crosses the main road, and the ramp spans and the two piers sit on IWM land, which is in a conservation area. The initial enquiry was simply for background information on the original C100 bridge and Mabey Bridge provided the relevant historical and technical information. IWM's own consulting engineers then conducted a comprehensive survey of the bridge and recommended that the old bridge was replaced, keeping the two piers, which were to be re-used.

The Solution

Mabey Bridge's Digital Engineering Department supported the scoping work using the latest advances in digital design and imaging technology. Armed with this capability the Mabey Bridge Site Advisor, Steve Morgan, was able to present the IWM Team with the optimal solution. A three span Compact 200™, 58.878m x 3.15m with anti-skid decking was specified. It is the natural successor to the older Compact 100 structure, and also conforms to the planning constraints which dictated a 'like for like' replacement. A bespoke parapet rail system, powder coated green, was also specified and fitted across the entire length of bridge.

The Result

The IWM Team was comprehensively supported throughout the project by a multi-disciplinary Mabey Bridge Team to address their technical, costing and environmental requirements in a very short timeframe.

The new Compact 200™ met the 'like for like' requirement of a pre-engineered steel pinned girder panel through-type structure, with the main span in double-single configuration, and ramp spans in single-single format to replicate the existing bridge as far as possible.

The project was completed in good time, with minimal disruption to the public and IWM business. The required road closure for the lifting of the new bridge exceeded expectations with the new structure installed in just one weekend.



Mabey Bridge, Unit 9, Lydney Harbour Estate, Lydney, Gloucestershire GL15 4EJ, United Kingdom

Office: +44 (0)1291 623 801 Email: mail@mabeybridge.com www.mabeybridge.com

