



Acrow Reconnects South Lanarkshire Communities With a Single-Span 90m Delta™ Bridge in Scotland

Long-span steel bridge replaces ageing structure and extends a local cycling network

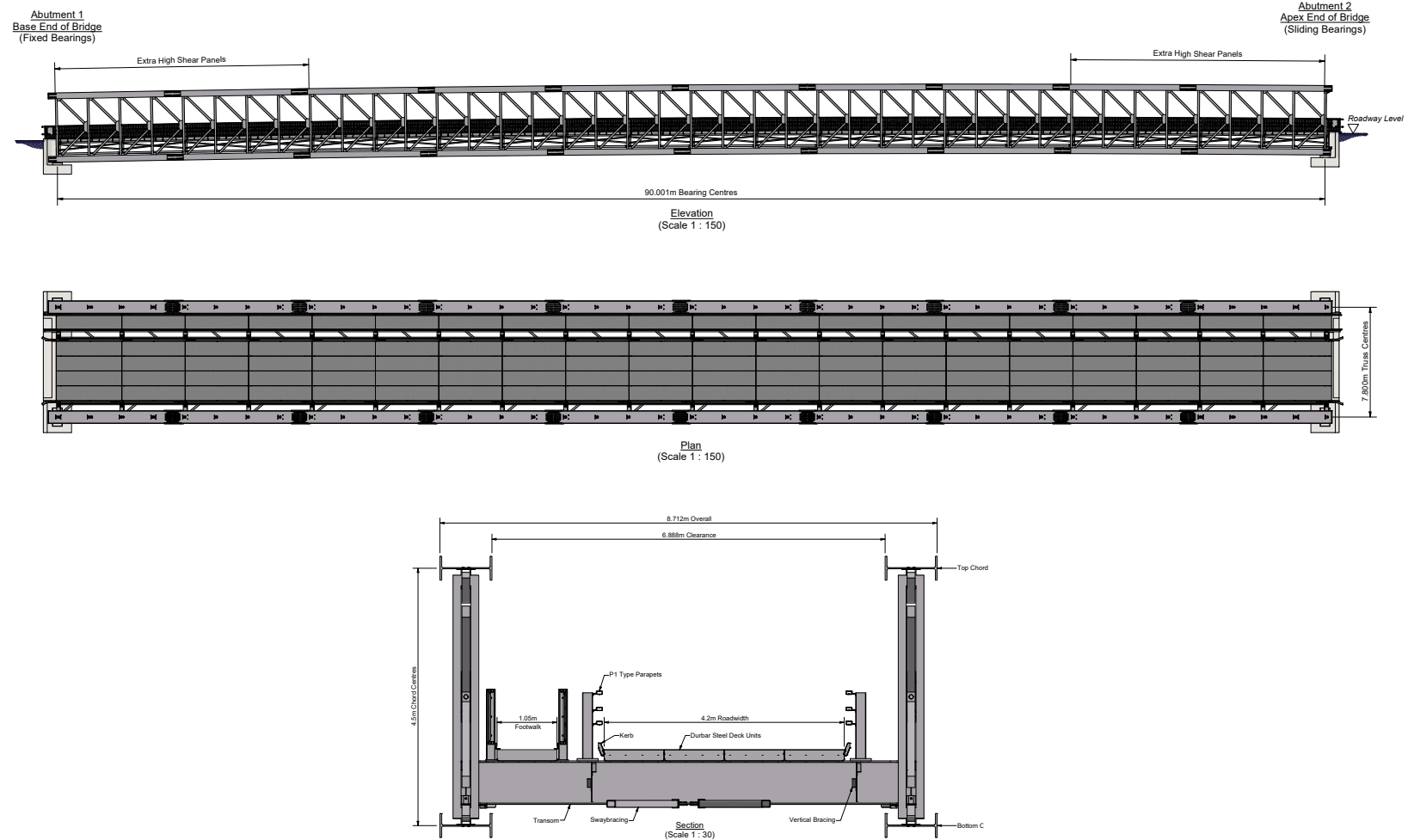
The previous Clyde River Bridge in South Lanarkshire, Scotland, was built in 1912. An early example of reinforced concrete bridge construction in Scotland, the structure crossed the river on one of the main routes to the village of Carstairs Junction. A three-tonne weight limit had been in place for several years until a routine inspection in 2018 found structural defects, which subsequently shut the bridge to all traffic.

The contract to construct the replacement bridge was awarded by South Lanarkshire Council to Eric Wright Civil Engineering in November 2022. Eric Wright Civil Engineering then appointed Acrow to manufacture and install the steel superstructure, which is a 90-metre single span Mabey Delta™ bridge with a 4.2-metre-wide carriageway and an additional internal footwalk. The structure is also designed to accommodate BT Openreach cabling and a Scottish Water duct and features both N2W1 equivalent parapets and SmartEdge® System for pedestrian safety and aesthetics.

The Mabey Delta is a unique prefabricated modular bridging system suited for long-spanning permanent applications on main highways or in rural areas. It uses standardised, interchangeable steel components with full highway loading capability to provide a permanent, lightweight, steel bridging solution which can be configured for long-span applications.

For this project, the Delta was configured to Eurocode standards to facilitate connectivity between Carstairs and the surrounding villages and towns south of the river. The new bridge also provides safe access for pedestrians and cyclist traffic, which feeds into a popular area cycling network.

Installation with a full cantilever launch from the south embankment, using standard Acrow launching equipment, allowed the structure to reach the 90m span without the need for any temporary supports and ultimately avoided any disturbance to the riverbed. The replacement bridge was officially opened on 22 April 2024, restoring an important route for area residents and businesses.



Specifications

Bridge length:

90m

Roadway width:

4.2m carriageway and 1.05m internal walkway

Parapets:

N2W1 equivalent parapets and SmartEdge® System

Deck surface:

Anti-skid epoxy aggregate

Bridge erection method:

Full cantilever launch

Design load:

Eurocode Load Model 1,2,3 (SV80) and 4

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