

Delivering a robust access solution for the Swiss Army

Bridging Case Study



Chur access bridge, Switzerland

Customer: armasuisse (the Competence Center for Procurement, Technology and Real Estate within the Swiss Federal Department of Defence, Civil Protection and Sport DDPS) | **Solution:** Delta™





The Requirement

The beautiful town of Chur is the oldest in Switzerland and the capital of the canton of Graubünden. It sits on the south bank of the River Rhine, cradled by the Swiss Alps. Close by, the Swiss Army has a high-tech live fire training area that sits astride the Rhine just to the north of the town. Key to the effectiveness of this excellent facility is the ability to move troops and vehicles seamlessly between the carefully designed progressive training serials both sides of the river. When the existing bridge came to the end of its life, a new bridge was needed.

The Challenge

Not only does Chur sit within a truly picturesque part of Switzerland, it is also in an environmentally sensitive area. The Swiss Army has long shared the local view that they must do everything possible to minimise the impact of their activities on local ecosystems. Any new bridge would have to allow the training area to remain fully functional, but avoid the need for potentially damaging permanent construction work. Should the bridge be no longer needed, it had to be easily removed and leave no scars on the landscape. A system that could be re-used elsewhere or even easily recycled would have marked environmental appeal.

The Solution

The Swiss Army already had Mabey Bridge's excellent Logistic Support Bridge™ (LSB™) in its inventory. However, to use this system would have required a 2 span bridge, and this would necessitate environmentally unacceptable pier construction work mid-river. So armasuisse,



on behalf of the Swiss Army, conducted a market survey and identified Mabey Bridge's Delta Bridge™ as providing the optimal solution. It was calculated that a 90m Delta™ bridge would be capable of carrying the heaviest anticipated military vehicle (MLC 40) and any of the Range Warden's civilian vehicles that might need to use the bridge.

A single lane, extra-wide carriageway was selected. The Mabey Delta™ is a modular steel bridge that is swift to erect. The bridge was ordered, the components manufactured and delivered directly to site. A Mabey Bridge site advisor provided technical advice to the Swiss Army Engineers who expertly conducted the build. It is noteworthy that the bridge was aligned obliquely to better allow exercising troops to move efficiently between the training events.

The Result

The Swiss Army has a new and robust replacement bridge that meets its training needs whilst respecting the local environment and the concerns of the people of Chur. Crucially, should the land use change, the bridge can be removed swiftly and leave the surrounding area and ecosystems unaffected. This Delta™ bridge is not only the first to be constructed in Europe, but the first to be sold to a military customer. Developed in 2003, the Delta™ is an exceptionally long span member of the Mabey Bridge range of modular steel bridging. The challenge presented by the Chur military firing range, and the way the Delta™ met this need, underscores the tremendous versatility of this superb modular bridging solution.

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