

Conference 23-25.09.2020 Madrid

Contact author: Mario GUISASOLA mgr@anta-ic.com

LEGARRETA BRIDGE PEDESTRIAN ENLARGEMENT IN VILLABONA

Authors: Mario GUISASOLA

Affiliation: ANTA Ingeniería Civil, San Sebastián, Spain **Keywords**: expansion, weathering steel, repair, corbelling, portal frame

The expansion of the Legarreta bridge located in Villabona is a lightweight work and consists of attaching a weathering steel steel structure to each edge of the deck in order to extend the original width for allowing the uses for cyclist and pedestrians. The main feature of the work is its steel "V" piles, which allow the structure's span to be shortened, thus achieving a stylized appearance. The expansion of the bridge platform allows its functionality to be expanded: before it was a road-use bridge, and now it is highly appreciated by pedestrians and cyclists. A small operation has greatly improved the appearance of the bridge, improves its durability and extends its life. An ordinary structure used only by vehicles becomes a bridge appreciated by society thanks to its elegant appearance and its new cycling and pedestrian use.



Fig. 1. Bridge pedestrian enlargement.



Fig. 2. Expanded deck

Fig. 3 'V' pile

Fig.4 Expanded bridge