

CASE STUDY

Bridging the balance between transport and environment

ViaCon Sweden helps reduce burden of road construction on plants and wildlife with new animal crossing

In 2015, the Swedish Transport Administration planned to build a new section of road 27 near Borås, Sweden. The road needed to connect southeast Sweden to western Sweden in a more direct way and ease road travel.

THE CHALLENGE

New road construction poses challenges to wildlife and flora, leading to loss of life and animal habitats, as well as hazards for both animals and drivers. The Swedish Transport Administration decided early in planning phases that a large animal crossing was needed where the road passes through a natural forest ravine. Design requirements included:

- Life load according to EN 1991-2
- A cover depth of 2.73 metres
- Backfilling parameters according to SDM with base coarse material
- 80 years' durability
- Corrosion protection layers: zinc coating of thickness according to EN ISO 1461, surface of the structure painted 16m outside both ends with paint thickness of 300 µm

STAKEHOLDERS

Investor: Trafikverket
Designer: Sweco
Product: SuperCor 59S & ViaWall-B
Contractor: NCC



THE SWEDISH TRANSPORT ADMINISTRATION HAD ALSO DECIDED THAT THE FAUNA PASSAGE DESIGN WOULD BE A SOIL-STEEL BRIDGE, THANKS TO ITS EASIER, MORE COST-EFFECTIVE CONSTRUCTION.

THE SOLUTION

ViaCon Sweden met the challenge, providing SuperCor 59S, contributing to the successful construction of the wildlife crossing in 2015.

The resulting steel structure had the following measurements:

- Span: 14.24 m
- Rise: 7.5 m
- Bottom length: 39.1 m
- Top length: 38.9 m
- Plate thickness: 7 & 5.5 ribs mm
- Steel grade: S355MC

THE VIACON ADVANTAGE

ViaCon focuses on using greener materials and more efficient construction for a reduced carbon footprint and the ability to live in harmony with the environment. With ViaCon, the new ecological bridge delivered on its expected efficiency and environmental benefits, such as:

- Easier and faster to build, due to simpler structure
- Lower maintenance requirements
- Competitive costs, including less energy and fossil fuel consumption during construction
- Steel is 100% recyclable, contributing to the circular economy at end of life
- Reduced economic effects from vehicle and road damage and delayed or cancelled supply chain costs
- Fewer accidents, casualties and loss of life



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VIACON

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Consciously.**